

THE SECOND INTERNATIONAL CONFERENCE ON PALYNOLOGY,
UTRECHT (THE NETHERLANDS), AUGUST 29–SEPTEMBER 3, 1966

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SUMMARY

A short review is presented of the organization and activities of the Second International Conference on Palynology, which was held half a century after modern palynology received its greatest impetus through the introduction of the percentage pollen diagram by Lennart von Post. Preparative work done to arrange for a permanent international organization for palynology is discussed.

INTRODUCTION

It was early in 1964 that the International Palynological Conferences Committee officially asked the Dutch palynologists to organize the second such conference in 1966, and the Dutch member of the committee, Professor Dr. F. P. Jonker, began to make preliminary investigations. These soon resulted in the conclusion that the task could be accepted, that the most suitable location would be the so-called Transitorium, one of the first buildings erected in the planned new university centre "De Uithof" of the State University at Utrecht, and that the most convenient time would be the week of August 29–September 3. A first report was presented to the International Committee, meeting during the International Botanical Congress, in Edinburgh, in 1964. The next step consisted of the establishment of the required organizing bodies.

COMMITTEES

In order to obtain corporate capacity, a Foundation Second International Conference on Palynology was created, consisting of F. P. Jonker, President, J. H. Zurburg, Vice President, A. A. Manten, Secretary, and Th. E. de Brauw, Treasurer.

Working under this foundation, there were several committees.

Programme Committee

The committee responsible for the scientific work of the conference was constituted as follows: F. P. Jonker, President, A. A. Manten, Secretary and Editor, J. H. Germeraad, B. B. 't Hart, Miss B. Polak, W. Punt, W. J. Quarles van Ufford, P. van Gijzel, and W. H. Zagwijn.

Local Working Committee

A Local Working Committee was formed, consisting of the following members: F. P. Jonker, President, J. H. Zurburg, Secretary, Th. E. de Brauw, Treasurer, A. C. de Graaf, D. K. Ferguson, C. R. Janssen, W. Punt, Tj. Reitsma, J. van der Burgh, H. Visscher, A. Voorrips, and L. C. F. Wunder.

Some of these people represented the Congress Bureau of Utrecht (headed by Mr. J. H. Zurburg), which took care of the administration and registration of conference participants, their accommodation during the conference week and during the excursions, and the special conference bus line which had to maintain a connection between the centre of town and the conference building. The treasurer represented the bankers house Vlaer and Kol. Other members of the committee were from the scientific staff of the Laboratory for Palaeobotany and Pollen Morphology. They took care of an enormous number of larger and smaller tasks, of which should be mentioned the many arrangements in the conference building, the welcoming of participants upon arrival at the airport or the railway station, and the placing of several direction posts assisting those who arrived in their own vehicles to find the conference building. The idea to brighten up one of the lucheon breaks with some musicians playing ancient street organs was much appreciated. Arrangements were also made with Hotel Smits, in the centre of town, that in their building during the entire conference week a Conference Club was open. Evening meetings were held there by the International Committee and the Programme Committee, several people met there informally, and on Sunday August 28 the various conference offices were open there. Mention should also be made of the *Daily Newsletter* of the conference, so ably taken care of by Mr. Ferguson and Miss H. A. M. de Snoo, Professor Jonker's secretary, who should be praised also for all other assistance she gave to so many people engaged in the organization of the conference.

Excursions Committee

For the organization of the pre- and post-conference excursions, a committee was established, consisting of: G. C. Maarleveld, President, Miss S. Jelgersma, Secretary, W. A. Casparie, S. J. Dijkstra, Miss H. Grebe, A. J. Havinga, C. R. Janssen, K. H. Josten, P. van Gijzel, R. Vanhoorne, G. von der Brellie, L. C. F. Wunder, and T. A. Wymstra.

Accompanying-Members Committee

Finally, a special committee was also created to take care of people who would travel to Utrecht in the company of conference participants. The composition of this committee was as follows: A. M. E. Jonker-Verhoef, President, E. L. Janssen-Kettlitz, Secretary, M. M. Punt-Langerak, M. Reitsma-Hoogerwaard, E. J. M.

Stróbl-Swane, W. M. van der Burgh-Bast, Th. Visscher-Van Gorp, E. J. Voorrips-Hebels.

HONORARY PRESIDENTS

One of the first decisions taken by the Programme Committee was that Professor Dr. F. Florschütz, the founder of modern palynology in The Netherlands, should be Honorary President of the conference. In addition, there was the wish to express gratitude also to a number of other leading palynologists for what they had contributed to this branch of science. This was done by inviting them to be Honorary Vice Presidents. These were: G. Deflandre (France), G. Erdtman (Sweden), H. Godwin (Great Britain), J. Iversen (Denmark), M. I. Neustadt (U.S.S.R.), R. Potonié (Germany), T. L. Smiley (U.S.A.), W. Szafer (Poland), and R. P. Wodehouse (U.S.A.).

Unfortunately, Professor Florschütz died a year before the conference. The Honorary Vice Presidents were thereupon invited to collectively take his place.

HONORARY COMMITTEE

The organizers of the Second International Conference on Palynology are proud that several eminent people accepted membership of a national Honorary Committee. These are: Prof. Mr. I. A. Diepenhorst (Minister of Education), Mr. C. Th. E. Graaf van Lynden van Sandenburg (Governor of the Province of Utrecht, and President of the Board of the State University, Utrecht), Jhr. Mr. C. J. A. de Ranitz (Burgomaster of Utrecht), Prof. Dr. H. J. M. Scheffer (Rector Magnificus, State University, Utrecht), Dr. J. J. Dozy (Exploration Manager, B.I.P.M., The Hague), Dr. A. A. Thiadens (Director, Geological Foundation of The Netherlands, Haarlem), Prof. Dr. J. P. Bakker (President, Royal Geographical Society of The Netherlands, Amsterdam), Prof. Dr. L. A. de Sitter (President, Royal Geological and Mining Society of The Netherlands, Leiden), Prof. Dr. R. van der Veen (President, Royal Botanical Society of The Netherlands, Utrecht), Prof. Dr. Ir. A. P. A. Vink (President, Pedological Society of The Netherlands, Amsterdam), Dr. R. Voorhorst (President, Dutch Society of Allergy, Leiden), Prof. Dr. J. Heimans (Professor Emeritus of Special Botany, University of Amsterdam), Prof. Dr. J. Lanjouw (Professor of Plant Taxonomy and Plant Geography, State University, Utrecht), Prof. Dr. H. F. Linskens (Professor of Botany, University of Nijmegen), Prof. Dr. L. J. Pons (Professor of Pedology, Agricultural University, Wageningen), Prof. Dr. C. G. G. J. van Steenis (Professor of Plant Taxonomy, State University, Leiden), Prof. Dr. I. M. van der Vlerk (Professor Emeritus of Palaeontology, State University, Leiden), and Prof. Dr. A. J. Wiggers (Professor of Physical Geography and Geology, Free University, Amsterdam).

OPENING CEREMONY

In the morning of Monday August 29, 1966, well over 300 people assembled in the Aula (the main auditorium) in the main building of the State University in Utrecht, for the official opening of the Second International Conference on Palynology. They were all heartily welcomed on behalf of the Dutch palynologists, and particularly on behalf of the organizing committees of the conference, by the Conference President, Professor Dr. F. P. Jonker. He mentioned the great success of the first conference, held in Tucson, Ariz., U.S.A., in 1962. As a result of that success the members of the Tucson conference expressed unanimously their wish to regularly organize such conferences. An International Palynological Conferences Committee was established during a plenary session, and this committee asked the Dutch palynologists to organize the present, the second conference, at Utrecht.

In the years that elapsed between the two conferences some well-known palynologists passed away. Through the president, the conference honoured in deep respect the memory of Frans Florschütz from The Netherlands, who would have been the honorary president of this conference, had he not died on June 21, 1965; of Franz Firbas from Germany, who contributed already to the pollen-analytical literature as early as in 1923, and who was a leading palynologist until his death on February 19, 1964; of Elisabeth M. Knox from Scotland, who had a great reputation in the field of spore morphology, and who died in 1964; and of Maria Federovna Neuburg from the U.S.S.R., who enlarged greatly our knowledge of Palaeophytic and Mesophytic palynology.

The word was thereupon given to Dr. H. J. Schölvincq, Secretary General of the Ministry of Education and Sciences of The Netherlands, to perform the official opening of the conference. Some fragments of his address are given below.

When the Chairman of the Programme Committee of the Second International Conference on Palynology asked the Minister of Education if he would consent to be a member of the Committee of Honour, he accepted the invitation without hesitation, thereby giving evidence of his very great interest in the conference.

Since to the Minister's regret he has been prevented from opening the conference himself, he has asked me to give the opening speech, which I am glad to do.

I can say quite honestly that the theme of the conference appealed to me right from the start and that it has become more fascinating than I should have ventured to presume it could be, now that I have gone more deeply into the subject.

Like every science, palynology is a means of adding to our knowledge of Man—knowledge that Man himself is always so diligently seeking to increase.

All of you are undoubtedly well acquainted with the part played by palynology in this struggle for knowledge; to my very great regret I do not share your erudition in this sphere. In fact, the time in which I had to prepare my opening speech was so short that I could only go into the subject very superficially. So I must be discreet as I venture upon your preserves and, with due respect for Clio, make mention of but a few of the skills with which your specialism has enriched Mankind.

Needless to say, pollen research has led to a much better understanding of various problems associated with plant taxonomy.

One is gripped as one reads that as a result of medical and other experiments certain types of pollen have been linked with certain ailments caused by allergies.

Then again, outsiders would be surprised if they knew how useful the results of pollen research are in the foodstuffs branch, that is, how they facilitate classification of the various types of honey.

Another fascinating aspect of the work is the research being conducted into the subject of fossilized pollen; it has been discovered that palynology can provide a very convenient relative-dating method. It is especially in archaeology and geology that this branch of your science has proved extremely useful. Only think of the astonishing progress that has been made with respect to our knowledge of the barrows we have here in The Netherlands; thanks to palynology, we now know a great deal more than we did about the way in which our remote ancestors lived. One of the facts that has emerged is that in the Bronze Age (between 1700 and 1000 years B.C.) the Dutch in the north of the country, who were predominantly cattle farmers, lived different lives from those in the south, most of whom were arable farmers.

The investigations that have added to our knowledge of the climatic changes during and after the Ice Age are of more global interest.

Then again, it is an exciting thought that about 100 km from where we are at the moment, palynology is being of incalculable value in the prospection for oil from the bed of the North Sea.

It is still premature to make any definite statement regarding life outside this planet of ours, although even in this matter palynologists have already made some progress by studying carbonaceous meteorites.

It is astounding how manifold are the ways in which palynology can be put to practical use, and I think a man can hardly be blamed at all for being envious of those who go in for such an absorbing branch of science.

I should like to lay a charge on the shoulders of all palynologists and I do so for non-scientific as well as scientific reasons; it amounts to my wishing to obtain some assurance that they will be able to continue their scientific work for the benefit of our descendants many generations hence.

Actually, that somewhat cryptic statement, which calls for elucidation, is also meant for all who have the continued existence of plants and animals at heart.

What has prompted me to broach the subject is the alarming prophesy Rachel Carson made a few years before she died in 1964.

In *Silent Spring* she describes how the excessive use of "elixirs of death", as she calls synthetic pesticides, can upset the ecological equilibrium and menace terrestrial life.

If we carry the idea and its consequences to their extremes, we can imagine a time in the distant future when pollen or spores, palynology's basic materials, will no longer be formed; so even if we assume that a few palynologists will have survived, it will be impossible for them to tell that there had ever been such a period!

Although I do not believe the future will be so dark as Rachel Carson has painted it, I do not think it would be wise to disregard her warning entirely.

This conference, which may in time grow into a permanent institution, might help in some small measure to reduce the fearsome picture Rachel Carson conjures up before us to a merely hypothetical contingency. In doing so, palynology will reveal itself still further as a blessing to Mankind and will help the peoples of the world to understand each other.

On behalf of the Minister of Education and Sciences I now have pleasure in declaring the Second International Conference on Palynology open.

The remaining part of the Monday morning session comprised three lectures. First, the conference secretary gave a review on Lennart von Post and the foundation of modern palynology. Next, Dr. J. R. Rowley read a short contribution by Professor Erdtman, who himself unfortunately was unexpectedly unable to be personally present. Finally, the conference president gave a concise review on palynology and The Netherlands. All three addresses are printed in full elsewhere in this volume.

Some business announcements by the president concluded the opening session. Several buses brought participants to the new university centre "De Uithof", where the scientific sessions of the six conference days were held.

MONDAY EVENING RECEPTION

For the evening of the Monday, both the regular and the accompanying members of the conference were invited to a reception, offered in the main building of the university and the annexed open-air Kloosterhof, by the Municipality of Utrecht and the State University.

At this reception, the Hon. C. J. A. de Ranitz addressed the many attendants as follows:

This evening, I have two pleasant duties.

In the capacity of burgomaster of the City of Utrecht, it is my great privilege to extend a warm welcome to the members of the Second International Conference on Palynology and to wish success to your congress.

In my capacity of member of the Executive Board of Governors of the State University at Utrecht, I welcome you most cordially in this hall, our main auditorium.

On behalf of both the municipality and the university, I add a special word of welcome to the "accompanying members" of this conference. I sincerely hope that the ladies will enjoy their programme of excursions, boat tours and bus trips in this historic city and to a number of famous and charming objects of interest in our country.

I trust that you all will find time between and after your many scientific meetings to see something of our city and our country, to enjoy their beauty and to meet their people. And I also trust that you will meet our scientists: the scientific workers in this old and well-known university.

The university is now engaged in a process of building. Your conference headquarters, the Auditorium, in which you attended this afternoon the first symposia, is one of the first buildings of the planned new campus. Building operations are in full progress. In a few years a number of modern, well-equipped laboratories and other scientific institutes will have sprung up in the now empty area. At present, the university buildings are scattered all over the city. In the heart of it, the Cathedral Square (in Dutch: Domplein) the main building, the heart of the university, is situated. In its main auditorium, in which we are honoured to welcome you now and in which the opening of your conference took place this morning, another great event took place more than four centuries ago. It was here that on January 21, 1519, the "Union of Utrecht" was signed. Hereby, the Seven Provinces of that time united in their battle for freedom and independence, against Spain. In that way the unity of The Netherlands was effected here. This morning, your president told us that in another university building nearby, namely in the Botanical Institute, Lange Nieuwstraat, Professor Florschütz started the practice of palynology in The Netherlands. Being a jurist, I am not quite aware of the quintessence of this science. I have been told, however, this morning, that it acts mainly in the borderland of botany and geology and has become of great economic importance. For this reason I was proud to learn that the pioneer of this science in our country, Professor Florschütz, was also a jurist.

After his pioneering, palynology in The Netherlands developed among others in that Botanical Institute. Now it is already being practised, however, in our new campus, where an old fortress has been provisionally rebuilt into a palynological laboratory. It is a very old but solid building with a very modern equipment.

It is hoped that funds will be available in the near future to house this rapidly growing and developing science in an adequate new building. After consulting your conference programme, however, the Board of the university is expecting the request for an enormous building. Your science, namely, appears to restrict itself no longer to the earth but is studying also extra-terrestrial life, attracting consequently the largest field of research that one can conceive.

Ladies and Gentlemen, Members of this Conference, on behalf of the Municipality and the University, I offer our best wishes for a most successful conference, an interesting series of meetings, lectures and symposia, and useful personal contacts. In my opinion especially those personal contacts are extremely important to a mutual understanding: not only in a scientific sense but also to the promotion of international cooperation, confidence and friendship.

SCIENTIFIC PROGRAMME

Since the conference was held 50 years after Lennart von Post presented the first percentage pollen diagrams, two contributions were included in the opening session of the conference to commemorate this significant moment in the history of palynology. A third lecture in this session gave the participants some impression of palynological research in the host country of the conference.

The first hour in the remaining five morning programmes was reserved for a plenary lecture of a review character. These dealt with successively palynology and fluorescence microscopy (P. van Gijzel), palynology and the oil industry (C. Hopping), palynology and meteorology (F. H. Schmidt), palynology and pollen preservation (A. J. Havinga), and palynology, nomenclature and terminology (F. A. Stafleu).

All the remaining time, except for the Wednesday afternoon, was reserved for symposia. These were grouped into six sections: (1) Palaeophytic, (2) Mesophytic, (3) Upper Cretaceous and Tertiary, (4) Quaternary, (5) Pollen and spore morphology and dispersal, (6) Palynomixtum. The credit for coining the latter term goes to the president of the conference.

It was initially envisaged that three symposia should be held simultaneously. The high number of lectures that was announced, however, necessitated the increase of this finally to five. A survey of the symposia and lectures held will be given in three reviews, one in each of the first three proceedings volumes. Some information about the various sections is given in Table I.

A really serious problem was formed by the large number of mutations in the programme of lectures. The following figures may illustrate this. Although the official closing date for announcing lectures was December 1, 1965, about equal numbers were announced after as before that date. When about three months prior to the conference the final time table had to be drawn up, a maximum of 262 lectures could be included and 27 further contributions were listed as reserves. When seven weeks later the programme booklet had to be passed for printing, 250 lectures were left and the reserve list had shortened to 14 titles. In the last five weeks before the conference 32 contributions and 4 reserve lectures were withdrawn. During the conference week itself it appeared that 48 of the lectures still in the programme could not take place, either because the author cancelled his or her contribution at the last moment or simply did not show up without prior notification. Only 3 reserve lectures could be presented, plus 5 other contributions which were only announced during the conference week. Seven authors who were in the printed programme had altered the title of their contributions. This all implied that of the 250 titles printed in the programme booklet, only 163 were presented as announced (65%). This leaves aside changes in the day and time of presentation, for all the above alterations also required continuous modifications in the time schedules. I sincerely hope for both the secretaries and the participants in future conferences that they be spared experiences of this nature and extent.

TABLE I

SOME DATA ABOUT THE SCIENTIFIC SECTIONS OF THE UTRECHT CONFERENCE

Section	Total number of lectures	Average number of attendants	Language of lectures		
			English	French	German
Plenary lectures	8		8	-	--
Palaeophytic	25	42	18	6	1
Mesophytic	16	37	12	3	1
Upper Cretaceous and Tertiary	27	32	17	6	4
Quaternary	45	54	39	5	1
Pollen and spore morphology and dispersal	44	34	34	7	3
Palynomixtum	23	43	18	4	1
Totals	188	—	146	31	11
Average number of attendants (excl. of plenary lectures)	—	41	42	38	35

The number of participants in the conference amounted to 271. They brought 40 accompanying members. Details about the representation of the various countries are given in Table II and a summary of these data per continent is shown in Table III. A group photograph showing a large number of the participants is reproduced here as Fig. 1.

In order to increase understanding and cooperation between medical, botanical and honey palynologists, a round table conference was held on Thursday afternoon, presided by Drs. D. M. Henderson and P. J. van der Werff. This was followed by an extremely pleasant reception at the home of the allergist member of the Programme Committee, Dr. W. J. Quarles van Ufford.

EXCURSIONS

One pre- and two post-conference excursions were organized for participants in the Second International Conference on Palynology.

The pre-conference excursion, August 21–28, was organized by the Geological Survey of The Netherlands and went to the coastal plains of The Netherlands, under the leadership of S. Jelgersma, W. H. Zagwijn, P. J. Ente, B. P. Hageman, G. C. Maarleveld, B. Polak, and F. F. E. van Rummelen.

The post-conference excursions both took place in the week of September 4–11. One went to the southeastern Netherlands and to Germany. It was organized by the Geological Survey of The Netherlands and the Geologisches Landesamt

TABLE II

PARTICIPATION IN THE UTRECHT CONFERENCE BY COUNTRY OF ORIGIN

<i>Country</i>	<i>Participants</i>	<i>Accompanying members</i>	<i>Non-participating members</i>	<i>Country</i>	<i>Participants</i>	<i>Accompanying members</i>	<i>Non-participating members</i>
Algeria	1	1	—	Japan	2	—	2
Argentina	2	—	1	Libya	2	1	—
Australia	1	—	1	Malagasi	1	—	—
Austria	—	—	1	The Netherlands	52	1	—
Belgium	8	—	1	New Zealand	1	—	1
Bolivia	1	—	—	Norway	3	—	—
Brazil	2	1	—	Peru	1	—	—
Bulgaria	—	—	1	Poland	4	1	—
Canada	6	2	2	Rumania	5	—	—
Columbia	1	—	—	Saudi Arabia	—	—	1
Czechoslovakia	4	—	—	South Africa	—	—	1
Denmark	6	—	—	Spain	2	—	—
Finland	2	—	—	Sweden	3	—	4
France	31	10	6	Switzerland	5	—	1
Germany-East	3	—	—	U.S.A.	46	11	7
Germany-West	18	6	2	U.S.S.R.	14	—	—
Great Britain	34	6	5	Yugoslavia	1	—	—
Hungary	1	—	1	Total	271	40	40
India	3	—	—	Number of countries	35	10	19
Ireland	1	—	1				
Israel	1	—	—				
Italy	3	—	1				

TABLE III

PARTICIPATION IN THE UTRECHT CONFERENCE FROM THE VARIOUS CONTINENTS

<i>Continent</i>	<i>Participants</i>	<i>Accompanying members</i>	<i>Non-participating members</i>
Europe	200	24	24
Asia	6	—	3
Africa	4	2	1
Australia and New Zealand	2	—	2
North America	52	13	9
South and Central America	7	1	1

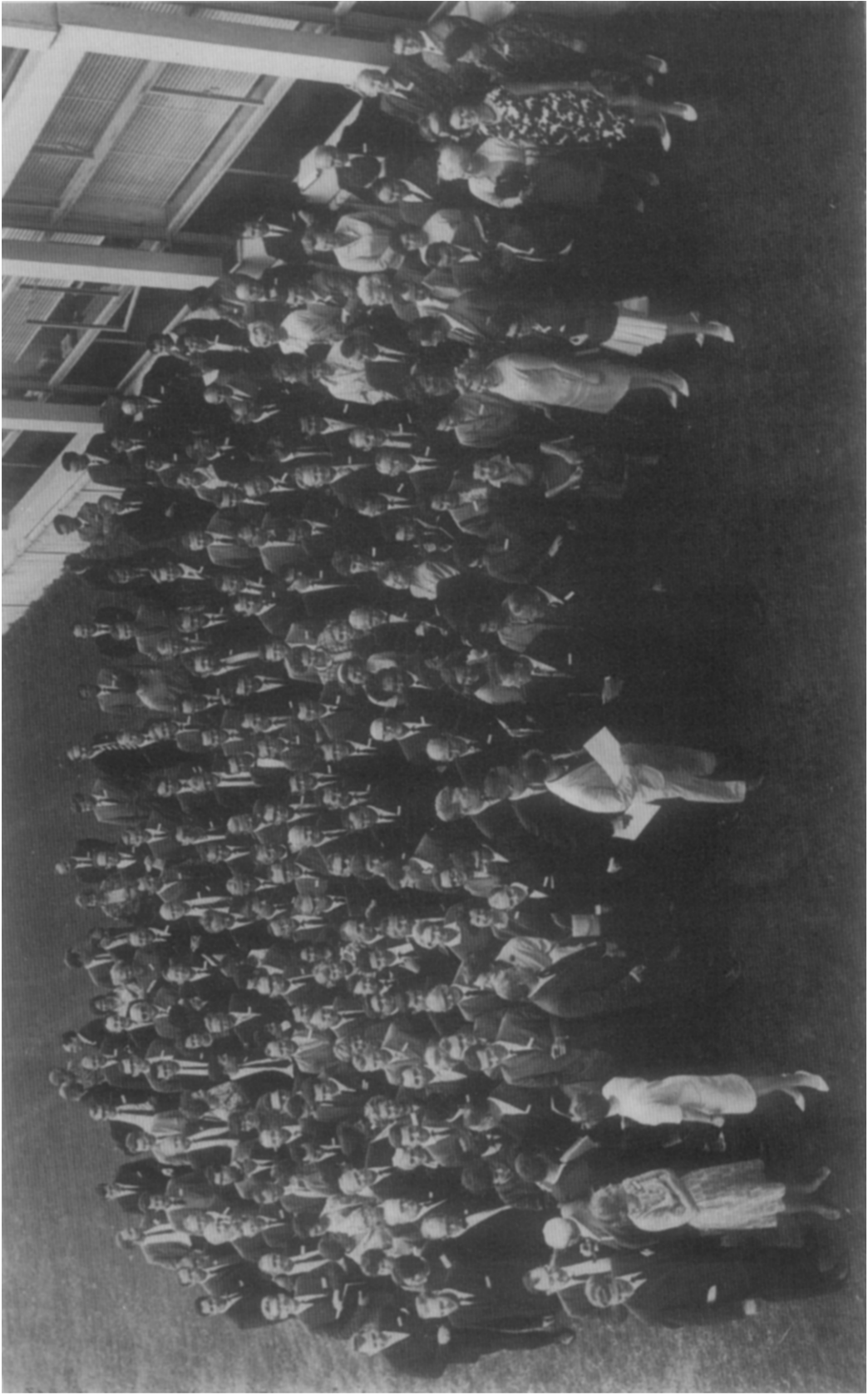


Fig. 1. Group photograph, Second International Conference on Palynology. (Photograph by Frank de Vries).

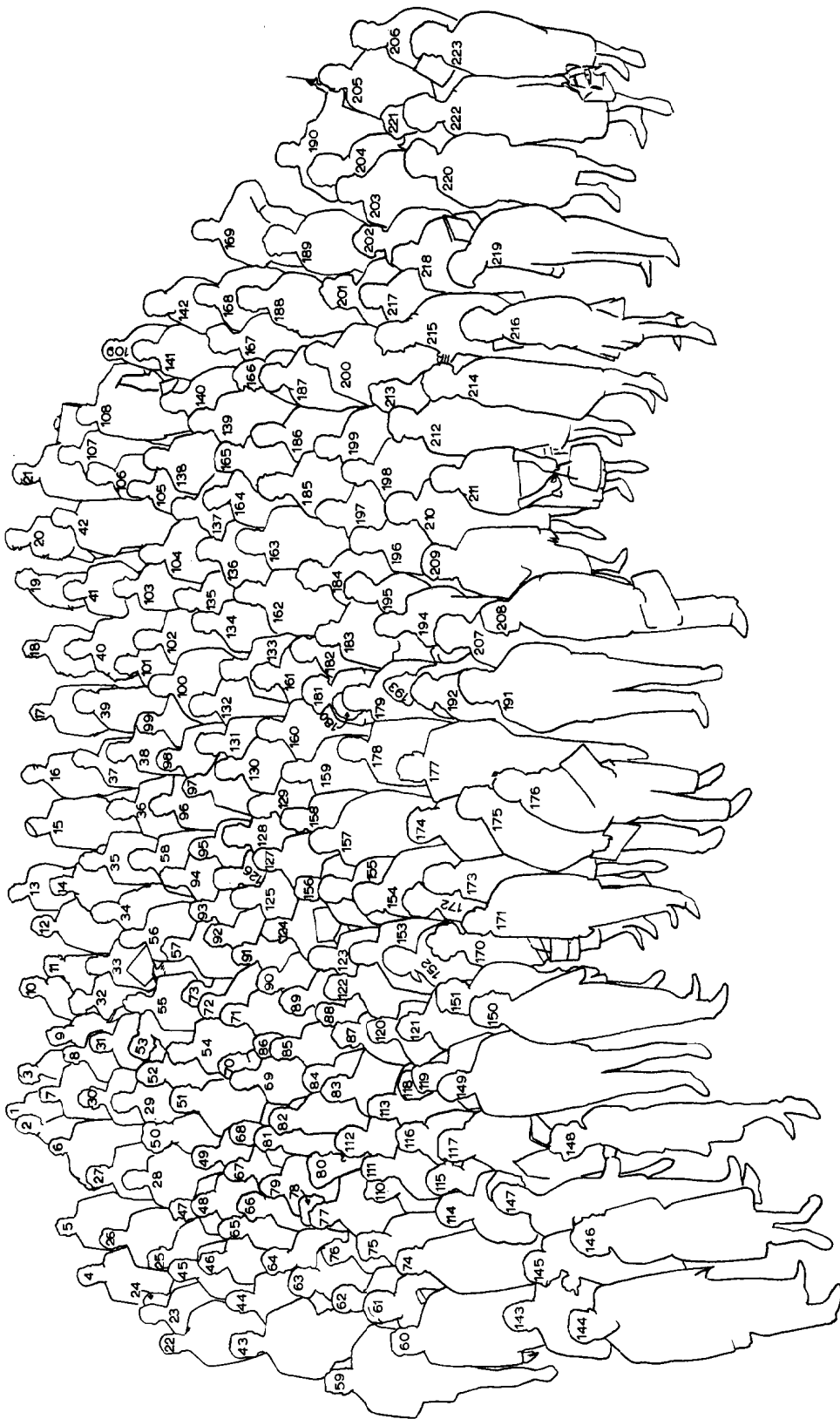


Fig.2. Contour sketch of Fig.1, with numbers to identify the various people in the group photograph. (See list of names on the next page.)

GROUP PHOTOGRAPH SECOND INTERNATIONAL CONFERENCE ON
PALYNOLOGY, UTRECHT, 1966

001 K. Wasylikova	054 A. P. Audretsch	105 C. Hires
002 J. McAndrews	055 W. G. Chaloner	106 M. Pons
003 M. Dabrowski	056 A. Traverse	107 Y. Reyre
004 R. Gijsskes	057 A. de Jong	108 A. H. Pons
005 Tj. Reitsma	058 B. Ouwens	109 H. Kieser
006 J. Teijink	059 R. Dickenhuth	110 J. Jentys-Szaferowa
007 J. van der Burgh	060 A. Voorrips	111 A. A. Manten
008 D. D. Bartley	061 L. Hänisch ten Cate	112 B. Polak
009 H. van Gessel	062 B. Dickenhuth	113 M. Neustadt
010 A. Vermeulen	063 R. Bonnefille	114 J. Levet-Carette
011 P. Davis	064 F. Beucher	115 H. J. Rakotoarivelo
012 Mrs. P. Davis	065 W. H. Zagwijn	116 P. K. K. Nair
013 N. J. De Jersey	066 P. van Hoeken-Klinken- berg	117 P. J. A. G. Piérart
014 J. Ruffin		118 L. E. Aario
015 C. Hopping	067 W. Krutzsch	119 L. R. Wilson
016 H. Visscher	068 N. K. Cohen	120 H. J. Sullivan
017 D. C. Bharadwaj	069 W. Grater	121 B. Alpern
018 H. W. Rehagen	070 M. Th. Morzadel- Kerfourn	122 H. Nichols
019 W. Punt		123 O. B. Bourn
020 R. T. Slotboom	071 H. Straka	124 D. O. Nelson
021 H. W. Hagemann	072 P. Morzadel	125 H. Zoller
022 A. Horowitz	073 J. Turner	126 K. Raunsgaard Pedersen
023 F. van Heyst	074 B. Fredskild	127 E. L. Jones
024 P. Lasalle	075 W. Szafer	128 G. E. Rouse
025 Th. A. Wymstra	076 M. Shimada	129 R. L. Tabbert
026 P. Worsley	077 R. Hantke	130 D. C. McGregor
027 E. Schulz	078 N. Bellair	131 W. R. Evitt
028 H. E. Wright	079 J. Malen	132 S. R. Jardiné
029 N. J. Norton	080 M. Kedves	133 L. E. Stover
030 F. Schaarschmidt	081 Ch. Boulouard	134 J. Rozeboom
031 A. U. Horst	082 M. Kedves	135 A. Combaz
032 W. Tutin	083 A. J. Havinga	136 F. W. Vlierboom
033 R. Noël	084 U. Miller	137 D. Grignani
034 W. Riegel	085 U. Hafsten	138 H. J. G. Germeraad
035 H. Kaiser	086 M. Tsukada	139 P. J. van der Werff
036 W. S. Lacey	087 J. Schoenwetter	140 B. Cramer
037 S. Bottema	088 K. Fowler	141 M. Boterenbrood
038 F. A. Hibbert	089 M. B. Florin	142 K. J. Zandstra
039 R. Timmers	090 A. Leroi-Gourhan	143 J. M. Schopf
040 W. van Zeist	091 R. Schütrumpf	144 D. B. Groeneweg
041 J. Matthews	092 K. Behre	145 R. Potonié
042 C. Poumot	093 J. Muller	146 J. van Cittert
043 M. Boersma	094 N. Frederiksen	147 J. T. Laveine
044 P. van Gijzel	095 W. Grater	148 E. Taat
045 N. F. Hughes	096 J. E. Dempsey	149 J. J. Liabeuf
046 R. West	097 E. A. Stanley	150 C. Sittler
047 D. B. Williams	098 R. Neves	151 S. Durand
048 F. R. Gnauck	099 M. Streel	152 N. A. Bolchovitina
049 M. G. Mortimer	100 W. A. S. Sarjeant	153 F. L. Staplin
050 J. C. Moody-Stuart	101 P. Ingwersen	154 S. Manum
051 J. Frekæ	102 F. W. Lange	155 D. J. Batten
052 E. M. Kemp	103 E. K. Kempf	156 G. K. Guennel
053 F. Stainier	104 C. A. Menéndez	157 P. Kaye

158 G. O. W. Kremp	180 C. Chlonova	202 E. N. Ananova
159 A. T. Cross	181 Y. Bratzeva	203 A. I. Egorov
160 A. H. V. Smith	182 S. R. Samoilovich	204 E. Rybnickova
161 M. Muir	183 K. Faegri	205 H. Godwin
162 J. Church	184 N. G. Pichova	206 H. J. Beug
163 D. P. Adam	185 E. Köhler	207 A. S. N. Liem
164 L. Martin	186 K. L. Huynh	208 D. J. Schove
165 J. Jansonius	187 A. Dunbar	209 C. Zukova
166 H. A. M. de Snoo	188 D. K. Ferguson	210 C. Gruas Cavagnetto
167 M. J. Denny	189 M. P. Grichuk	211 L. Trevisan
168 C. A. Brown	190 V. P. Grichuk	212 M. Follieri
169 A. Graham	191 E. S. Deevey	213 M. B. Davis
170 J. Tagourdeau-Lantz	192 J. J. Groot	214 G. Vachey
171 Ph. Taugourdeau	193 H. Grebe	215 J. C. Ritchie
172 E. Nagy	194 B. S. Venkatachala	216 A. Brun
173 Y. Somers	195 J. D. Zaklinskaia	217 B. Dale
174 J. H. Dickson	196 R. Brito	218 C. Downie
175 P. J. Mehringer	197 S. Th. Andersen	219 D. Wall
176 L. A. Sirkin	198 S. Pady	220 K. Slavikova
177 W. A. Watts	199 H. Tauber	221 I. M. Pokrovskaja
178 R. Alemany Vall	200 F. P. Jonker	222 M. Kalibova-Kaiserova
179 J. Aguilar	201 L. A. Kuprianova	223 R. Abuziarova

Nordrhein-Westfalen. Leaders were W. H. Zagwijn, J. C. van den Toorn, S. J. Dijkstra, C. R. Janssen, W. Paas, and L. van der Waals for the Dutch part of the excursion, and G. von der Brelie, H. Grebe, K. H. Josten, H. Falke, W. Jessen, and K. Schwab for the German part. The other excursion went to Belgium and was organized by the Koninklijk Belgisch Instituut voor Natuurwetenschappen. Leaders of this excursion were R. Vanhoorne, R. Paepe, F. Stockmans, P. Piérart, S. Leclercq, E. Roche, R. Noël, M. Streel, J. Thorez, M. Vanguetaine, and C. Ek.

As an interruption in the busy programme of scientific meetings, in the afternoon of Wednesday August 31, an excursion to Harderwijk and the IJsselmeer polders was offered to all members and accompanying members, jointly by the conference and by Elsevier Publishing Company.

Many historical monuments in Harderwijk remind us of a flourishing period in former days. The town has been one of the most important members of the Hanseatic League, the formidable trading confederation established in 1241 for purposes of mutual protection in carrying on international commerce.

Among the scientists who obtained a doctors degree at the University of Harderwijk (closed in Napoleonic time), were Boerhaave and Linnaeus, who both became world famous. Guided by Professor F. P. Jonker, the excursion visited the so-called Linnaeus tower.

From the picturesque old town the excursion went straight into the very source of the former prosperity: the Zuider Zee.

In 1920, closing of the Zuider Zee by a large dam was started, which work was completed in 1932. The thus created artificial lake was renamed IJsselmeer. Then reclaiming was started. In 1930, the 20,000 ha of the Wieringermeer Polder commenced to fall dry, followed in 1942 by the 48,000 ha of the Noordoostpolder. The most recent polder, Oostelijk Flevoland, was visited by

the excursion. In 1950, the construction of its surrounding dyke was started. This dyke was closed in the autumn of 1956 and in June 1957 the Dutch territory became enlarged with another 54,000 ha. The tour in the polder illustrated some aspects of the new land and its brand-new villages.

COMMISSION INTERNATIONALE DE MICROFLORE DU PALÉOZOÏQUE

The Commission Internationale de Microflore du Paléozoïque (C.I.M.P.) developed various activities during the week of the Utrecht conference.

In his report on the activities of the C.I.M.P., its secretary general, Dr. B. Alpern, endeavoured to draw up some rules which could form the basis of a system of moral principles for palynology. The rapidly growing number of publications and the multiplication in the number of described taxa may lead to great difficulties in the successful application of palynology. The C.I.M.P. tries to take a stand against such a course of affairs. (For further details see the text of Dr. Alpern's contribution elsewhere in this volume.)

In a working meeting information was exchanged and discussions were held on the microspore genera *Thymospora* and *Verrucosporites*, *Torispora*, *Verrucosporites*, *Florinites*, *Punctatosporites*, and other ornamented monolet spores. Miss H. Grebe presented a manuscript of the trilingual morphographical vocabulary relating to micro- and megaspores. Professor R. Potonié will undertake the revision of the genus *Florinites*, and Professor L. R. Wilson agreed to collaborate with him in this task.

The C.I.M.P. organizes the following publications:

(1) *Les Microfossiles organiques du Paléozoïque* (published by the C.N.R.S., Paris), which will cover the subjects of spores, cuticles, acritarchs and chitinozoans. This publication will be issued in separate instalments (fascicules) containing complete illustrated monographs with an important section being devoted to stratigraphy. The first two instalments, on chitinozoans (bibliography and morphology) were announced to be in the course of being printed.

(2) Colour slides of holotypes and cotypes of Upper Palaeozoic microspores. Four sets, comprising a total of 330 species, have been issued thusfar (Éditions Photo-Fleury, 60 Creil, France).

The Subcommittee on Acritarcha, directed by S. Jardiné, outlined during the Utrecht conference its methods of work, its aims and its programme for the near future. A resolution was passed concerning the preparation of a publication on the morphology of the acritarchs, in which Drs. F. Cramer, W. R. Evitt, J. Jansonius, F. W. Lange, S. A. J. Pocock and F. L. Staplin will take part. Five manuscripts are already available and the entire work will have to be finished and published by 1967.

The Subcommittee on Chitinozoa, directed by A. Combaz and presided by Professor A. Eisenack (who was unfortunately not present in Utrecht), organized a meeting which was attended by eleven specialists from seven countries. The

secretary gave an account of the colloquium organized by the subcommission in Bordeaux in 1964 and work done since then. He announced the publication, in the near future, of the first two issues on chitinozoans.

The contribution which one of the members of the subcommission presented to the Second International Conference on Palynology led to a discussion on the problems connected with team work. A certain conflict may arise between the policy of the team and the work of the individual. In order to secure that collective work remains possible, some basic rules are needed to establish a good equilibrium between the interests of the team and those of the individual.

MESOZOIC PALYNOLOGY COMMITTEE

The Mesozoic Palynology Committee (M.P.C.) held a meeting on Tuesday August 30, which was attended by 37 people from 15 countries.

It was decided, after some discussion, to expand the present activities of the committee steadily, and to postpone for the present calling for a personal subscription. The M.P.C. will *not* sponsor its own meetings but will try to hold meetings within other conferences of palynology, botany, and geology, wherever appropriate.

The main purpose of the M.P.C. is to assist palynologists concerned with the Mesozoic in exchanging information and to stimulate publication without sponsoring it; this will be done by correspondence, and particularly by circulars. The secretary (N. F. Hughes, Department of Geology, Sedgwick Museum, Cambridge, Great Britain) will endeavour to issue circulars until the next International Conference on Palynology. The scheme for making available colour photographs of holotypes, etc., will be continued and expanded. Regional representatives were appointed. Some special sub-committees were proposed to study specified taxa and problems. Circular No. 4, reporting the meeting and outlining the future programme, was promised to be ready in October for distribution to all those on the M.P.C. mailing list already, to those who requested it at the meeting, and to any others who provided their addresses to the secretary; previous circulars are also available on request.

Finally, the M.P.C. decided that it will be pleased to support an International Palynological Association, if one was formed.

PREPARATIONS FOR A PERMANENT INTERNATIONAL ORGANIZATION

Since World War II there have been, on several occasions, discussions about the creation of an international association of palynologists; thus inferring that there is a growing need for such an organization.

In the year preceding the Second International Conference, its secretary has,

therefore, been investigating some aspects of this matter, working from the following premises:

(1) If an international association of palynologists is to be founded, it should be one offering a home to every palynologist, irrespective of his or her scientific background or field of activity. This implies an interdisciplinary organization.

(2) For both historical and practical reasons the International Union of Biological Sciences seems to deserve first consideration as the major organization to which affiliation should be sought.

(3) An international association of palynologists can only reach general recognition with major unions and other bodies and can only produce much good for the international palynological world if it is an overall association. In some way or other, cooperation should be arranged with existing bodies in which palynologists are organized, so that in necessary cases the association can act as the sole international representation of palynology.

None of the organizations which are at present affiliated with the I.U.B.S. offers room to the entire community of palynologists. Because by far the majority of present palynological work deals with palaeopalynology, the existing International Organization of Palaeobotany (I.O.P.) comes relatively closest to palynology. An extension of its scope might make inclusion of all palynologists possible. Such a cooperation would imply that the already complicated pattern of international organizations is not unnecessary further complicated.

With this in mind, correspondence was exchanged with a number of Officers of the I.O.P. to find out whether the I.O.P. would be, in principle, prepared to accept all palynologists as members, which should imply that it should be willing to alter its name to something like International Association for Palaeobotany and Palynology. The reactions received, although they expressed personal opinions, were very favourable. It is felt by them that it is very important that the macro-palaeobotanists retain a close working arrangement with the micro-palaeobotanists (several of which are members of the I.O.P.), it certainly seems more important than the name the I.O.P. goes under. An extension of the scope and revision of the constitution will be considered by the I.O.P. if the palynologists decide whether they are interested in this kind of a joint venture.

The I.O.P. is affiliated with the I.U.B.S. and with the International Association for Plant Taxonomy (I.A.P.T.). The latter organization takes care of the administrative part of the activities. Correspondence with Council members of the I.O.P. and a discussion with the Treasurer of I.U.B.S., Professor F. A. Stafleu (I.A.P.T. Bureau, Utrecht) indicated that there seem to be no essential objections against a similar construction for an I.U.B.S. affiliation of an International Association for Palaeobotany and Palynology, that could originate out of the I.O.P. fused with an overall organization of palynologists.

Very pleasant contacts with the Secretary General of the I.U.G.S., Professor

W. P. van Leckwijck, led to the following suggestion: If an International Association of Palynologists is founded, it should preferably establish a commission on palaeopalynology. This commission should explore with the International Palaeontological Union the possibility of becoming a joint commission of both the palynological and palaeontological organizations. In this way the palaeopalynological group, existing within a general palynological organization, would be formally affiliated not only with the I.U.B.S., but also with the I.U.G.S., through the intermediary of the I.P.U.

The matter was officially discussed in a meeting of the I.U.G.S. Executive Committee in Antwerp, January 15, 1966. The Secretary of the I.U.G.S. informed the President of the I.P.U., Professor M. R. Sahni, who is in entire agreement with the proposal made; this also seems to hold for the Secretary and Treasurer of the I.P.U.

Correspondence with the secretary of the Commission Internationale de Microflore du Paléozoïque (C.I.M.P.), Dr. B. Alpern, learned that from that side a most positive attitude will be adopted towards the creation of an overall international palynological organization. The secretary of the Mesozoic Palynology Committee (M.P.C.), Dr. N. F. Hughes, pointed out that the set up of the M.P.C. has been kept loose until now in order to fit into a possible larger association.

An attempt to create a World Palynological Organization, undertaken by a few palynologists, independent of the Second International Conference on Palynology, was terminated when they were informed about the plans that were to be officially proposed to the assembly of the Utrecht conference.

On the basis of the above actions and other information, the secretary of the Utrecht conference prepared a working paper that was distributed to all participants in the conference. This paper was first discussed in a meeting, in the evening of Tuesday August 30, of the International Palynological Conferences Committee (created at the first conference, in Tucson), extended for the occasion with three invitees, Professor H. Godwin, Dr. J. M. Schopf, and your reporter. Not present were four I.C. members, Drs. H. A. Hyde, R. M. Kosanke, S. Macko and E. M. van Zinderen Bakker, who were unable to participate in the Utrecht conference. The committee, after lengthy discussions, decided that indeed the time has come to prepare for a permanent international organization. The text of the draft resolution given in the working paper by the conference secretary, was modified in various respects, until the following version resulted:

The assembly of the Second International Conference on Palynology, meeting in Utrecht on Thursday, 1st September, 1966, decides:

- (1) That it is desirable to create an overall international organization.
- (2) To establish an international working group of palynologists to prepare for such a permanent and overall international association of palynologists. The working group will be elected by the assembly of the Utrecht conference.
- (3) The working group is to be given authority to present a constitution of the proposed

permanent international association, for ratification by the Third International Conference on Palynology.

(4) The working group will also be responsible for arranging a third international conference, preferably to be held in 1970.

(5) The working group shall present interim information to all palynologists, as far as possible, about its activities.

Plenary meeting

In the plenary meeting of the Second International Conference on Palynology, held in the evening of Thursday September 1, these subjects of the possible creation of an international palynological association and the continuation of these international conferences, were officially brought to the fore. This session was attended by 90 palynologists and saw Dr. F. L. Staplin, president of the International Committee, in the chair.

In his opening speech, Dr. Staplin said that:

"In view of the success of both the first conference at Tucson, and this one so ably sponsored by the Dutch palynologists and the institutions at Utrecht and elsewhere, there seems to be no doubt that future conferences are desirable. Not only do we need them to learn from each other, but also to cement those relationships that are so important to our work.

Since the resolution before us, under point (4), provides for the responsibility for the next conference, let us defer this question until after consideration of the resolution.

Palynology is a meeting place for many disciplines. Plant morphology and embryology, meteorology and climatology, plant geography, medicine, soil sciences, microbiology, archaeology and cultural anthropology, and even the new field of exobiology all meet in this field. We sometimes find it difficult to agree because of this diversity of interest. But it is also this diversity that forces us together, since many of us must depend upon the results of work from several disciplines."

Dr. Staplin thereupon reported about the committee meeting of Tuesday evening. He said that the following four valid reasons were found in favour of creating a permanent international organization:

(1) Liaison is needed among the isolated disciplines that overlap in the field of palynology.

(2) There is no representative body with the authority to present our views to various institutions.

(3) The attention of non-palynologists could be drawn to the potentialities of our work, and the proper use of our results.

(4) It is easier to obtain funds, meeting places and other support for our endeavours if we exist as a formal group.

After lengthy discussions, the proposed resolution was finally passed unaltered and with great majority.

With regard to point (2) of the resolution, the president proposed the following 25 names, as selected by the International Committee (printed in italics are the names of those who participated in the Utrecht conference): *B. Alpern* (France), *S. Archangelsky* (Argentina), *H. J. Beug* (West Germany), *N. A. Bolchovitina*

(U.S.S.R.), J. J. Donner (Finland), *K. Faegri* (Norway), *H. Godwin* (Great Britain), P. H. Gregory (Great Britain), *N. F. Hughes* (Great Britain), *F. P. Jonker* (The Netherlands), *G. O. W. Kremp* (U.S.A.), *W. C. Krutzsch* (East Germany), *L. A. Kuprianova* (U.S.S.R.), *A. Maurizio* (Switzerland), *E. Nagy* (Hungary), *M. I. Neustadt* (U.S.S.R.), *J. M. Schopf* (U.S.A.), *F. L. Staplin* (Canada), K. Takahashi (Japan), J. Terasmae (Canada), *M. Van Campo* (France), E. M. van Zinderen Bakker (South Africa), *B. S. Venkatachala* (India), D. Walker (Australia), and *L. R. Wilson* (U.S.A.). The meeting accepted this list, to which ten additional names were added, proposed from the floor (in italics again the names of those present in Utrecht): *D. C. Bharadwaj* (India), *N. K. Cohen* (U.S.A.), *E. S. Deevey* (U.S.A.), *C. Downie* (Great Britain), *G. K. Guennel* (U.S.A.), *A. A. Manten* (The Netherlands), *P. K. K. Nair* (India), *I. M. Pokrovskaja* (U.S.S.R.), *G. E. Rouse* (Canada), and A. Srodon (Poland).

The assembly was informed that no country had thusfar offered to organize the Third International Conference on Palynology, but that Professor F. P. Jonker was exploring a number of possibilities.

First meeting International Committee for Palynology

The newly established International Committee for Palynology held its first meeting in the evening of Friday September 2, in the Conference Club. Present were those members of the committee which attended the Utrecht conference, with the exception of Drs. B. Alpern, E. S. Deevey and I. M. Pokrovskaja. The committee elected Professor F. P. Jonker as its president and your reporter as secretary.

As far as the preparations for an international organization are concerned, the desire was expressed to continue establishing contacts with existing international organizations. Since an international palynological association needs the support of as many as possible national organizations, but at least six of such, creation of such organizations will be stimulated. These may be organizations on an individual subscription basis, but also national interorganizational commissions. An abstract of possibilities how such representative national bodies could be set up was considered useful. Professor K. Faegri accepted to prepare such, for distribution as a circular letter.

Professor Jonker will continue his attempts to find a good site for the next international conference.

The committee felt that it should also try to strengthen ties within the palynological group, among others by assisting to prevent duplication of work and to increase communication between the various disciplines. To this end lists of institutes and departments are desirable, with a survey of the work they do, and also international lists of specialists. Mme Van Campo will coordinate this exchange of information. Every palynologist is invited to assist in compiling such information,

and in each country one or a few coordinating correspondents are required. B. Alpern will act as such for France, L. A. Kuprianova for the U.S.S.R., F. L. Staplin for Canada, P. K. K. Nair for India, J. M. Schopf for the U.S.A., and N. K. Cohen will report about palynological work carried out in medical circles. Further correspondents will be invited.

In consideration of the great thanks which the international palynological community owes to the late Lennart von Post, who 50 years ago introduced the pollen diagram, a letter, a conference group photograph and flowers were sent to Mrs. Von Post.

PROGRAMME FOR ACCOMPANYING MEMBERS

The programme for accompanying members began with a tea offered in the Conference Club on Monday afternoon August 29. After a welcome address by Mrs. Jonker, people got a chance to make acquaintance with each other.

On Tuesday morning, a boat trip was offered to the accompanying members by the municipality of Utrecht. The tour went through the canals of Utrecht, along so many interesting places that even the Dutch members got a fresh look at the town. After this trip, coffee was served in the Black Horse Bar, whose walls and ceiling are covered with antiques. A magnificent view over Utrecht from the windy roof of the Neude-flat building completed this morning programme. In the afternoon of that day, a visit was paid to the Mobach pottery. In the showroom a great variety of ceramics was exhibited, some of which were bought. A demonstration of clay modelling was greatly appreciated by all those who took part in the visit.

Thursday, the town of Gouda was visited by a group of 20 ladies. First, they saw the cheese market, where cheese was sold by clapping hands. In the weigh house, one of the buildings adjoining the market place, the ancient weighing of witches was demonstrated by one of the ladies of the group, who was apparently too light. After a film about cheese production, the group went to St. John's Church, to see the famous stained-glass windows. After a luncheon in the "Beurs Klok", a visit was paid to "De Moriaan", a museum of clay pipes and tiles. Free shopping completed this excursion, which for one of the ladies ended up with three pairs of wooden shoes.

Because the participating members of the conference had a plenary business meeting on Thursday evening, for the accompanying members an excursion was organized visiting a museum where golden and silver dinner ware was exposed, and the museum for organs and music boxes.

On Friday, a trip was arranged to the Open Air Museum at Arnhem, a park where old farm houses, village houses, mills, and the like have been brought together from various places in The Netherlands. Particularly the museum for

national costumes, also belonging to this museum complex, attracted much interest. In the restaurant of the Open Air Museum a Dutch "koffietafel" was served. The afternoon of the Friday was spent at the Kröller-Müller Museum, which houses among others a very famous collection of paintings by Van Gogh.

CLOSING SESSION

When, at about 5.30 p.m. in the afternoon of Saturday September 3, the last symposia had come to an end, about a hundred bravely persevering participants assembled for the closing session. Chairman of this session was the relieved president of the conference, who spoke words of gratitude to all participants, lecturers, chairmen and vice-chairmen of the sections, and his co-organizers.

On behalf of the conference, Professor H. Godwin thanked all those who took part in the organization of the conference, in his appreciated eloquent and witty style. Professor M. I. Neustadt spoke words of thanks in Russian (translated into English by Mr. N. N. Petrov), Mme M. van Campo did the same in French, and Professor H. Straka in German.

Some passages from Professor Neustadt's talk are worth to be recorded here, as they are of historical interest. He pointed out, that although pollen analysis was firmly founded by Lennart von Post, the historical roots of this field of study are closely related with the utilisation of peat. In connection with this, Professor Neustadt found the closing session of a conference, held in The Netherlands and celebrating the semi-centennial of palynology, the right time and place to recollect that peat extraction and the scientific study of peat were organised for the first time in world history in The Netherlands. Ancient Dutch documents indicate that peat extraction started in the low countries, probably in Utrecht, in 889 and that in 1113 the Dutch already distinguished the bad (white) peat from the good (black) peat. The first book on peat was also published in The Netherlands. It was the book by Martinus Schookius, *Tractatus de turfis, ceu cespitibus bituminosis*, which appeared in 1658. The Dutch scientist Degner, when preparing the manuscript of his book *Dissertatio physica de turfis* (published in 1728), was the first who is known to have used a microscope in the study of peat.

Worth mentioning is also that Professor Neustadt, as head of the Soviet delegation, presented to the State University at Utrecht the complete collection of about two hundred volumes and reprints of Soviet palynological publications, which had been exposed during the conference week in the conference building. Of these publications, four had been especially prepared for the Second International Conference on Palynology and three more such volumes were announced to be in press.



THE LANGUAGE BARRIER



JONKER



POTONIE



VENKATACHALA



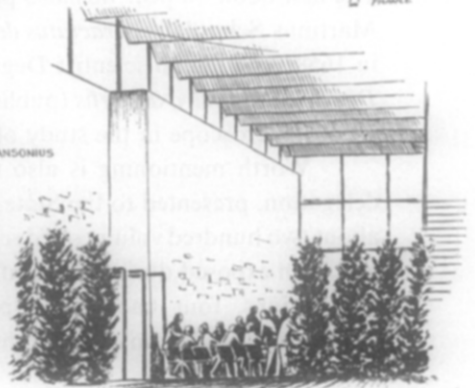
STAPLIN



MAURIZIO

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LUNCHEON CORNER

UTRECHT
1 SEPT 1966

PROCEEDINGS

It was initially planned to provide each participant in the conference with two proceedings volumes. Soon after the first circular had been mailed to a great number of palynologists, however, it appeared that many more lectures would be held and would require publication than was expected. An attempt was thereupon made to increase the number of proceedings pages. Our publisher was prepared to take the risk of a substantial increase in investment by producing five volumes. That each participant now will receive three of these volumes free of charge, instead of two, is mainly due to financial support received from: Standard Oil Company (New Jersey), New York, N.Y.; Standard Oil Company of California, San Francisco, Calif.; Socony Mobil Oil Company, New York, N.Y.; Shell/B.I.P.M., The Hague; Provinciaal Utrechts Genootschap van Kunsten en Wetenschappen, Utrecht; B. P. Benzine en Petroleum Handel Maatschappij, Amsterdam; Amoco Netherlands Petroleum Company, Utrecht; AGIP Direzione Mineraria, Milan; Compagnie Française de Pétroles, Paris; Koninklijke Zout-Ketjen, Hengelo; Organon, Oss, N.B., and Nutricia, Zoetermeer. Our sincere thanks go to these companies and organizations for their most appreciated gifts.

The first three proceedings volumes, of which the present volume is the first, will contain a selection of papers presented in Utrecht. A number of other lectures, which for various reasons could not be included in the first three volumes, will be published in volumes 4 and 5, together with some other papers which have been dedicated by their authors to the 50th anniversary of palynology. Of those lectures read in Utrecht which are being published elsewhere, as much as possible an abstract is included in one of the first three volumes, and/or an indication where the full text is to be found. A cumulative list of contents and cumulative authors and subject indexes for the five volumes will be published in volume 5.

ACKNOWLEDGEMENTS

The reporter is indebted to Dr. B. Alpern, Mr. N. F. Hughes, Mr. H. Vischer and Mrs. E. L. Janssen-Kettlitz for the information which they contributed to this conference report, and to Professor F. P. Jonker for critically reading the manuscript. He also wishes to express his thanks to Miss Mary Colledge (now Mrs. Van der Made) and the other collaborators in the secretariate and editorial office of the conference.