L'état des filtres et des discriminateurs est interrogé à une fréquence de 6,25/s (temps réel), sauf pour l'activité musculaire, l'ECG et l'ESG, qui sont lus par un compteur. Le programme totalise les résultats sur 1 min, puis les interprête en fonction du contexte, pour tenir compte notamment des perturbations qui ont pu affecter le tracé (artéfacts). Sur ces résultats corrigés, il calcule un diagnostic de stade de sommeil, selon la classification de DEMENT et KLEITMANN[8] légèrement modifiée: Eveil; stades 1, 2 et 3 pour le sommeil lent; stade P pour le sommeil paradoxal.

Les résultats sont imprimés par une machine à écrire, minute par minute, au fur et à mesure du dépouillement.

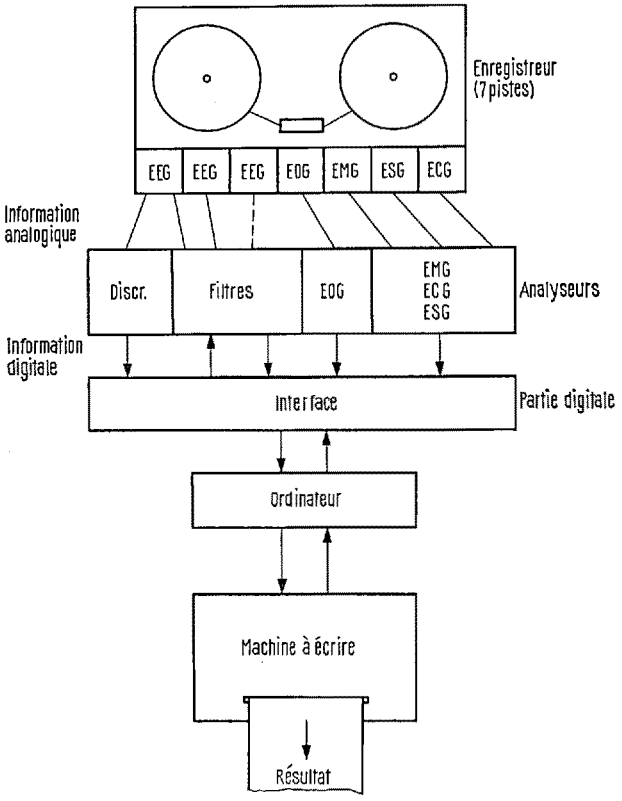

Schéma d'ensemble su système d'analyse.

Ils comportent des commentaires (présence d'artéfacts ou de secteur, par exemple), le diagnostic de stade du sommeil et des résultats numériques pour les mouvements oculaires rapides et lents, le tonus musculaire, les fréquences cardiaque et respiratoire.

Sur 7 enregistrements de nuits complètes chez des adultes normaux des deux sexes, le pourcentage moyen de concordance entre le dépouillement visuel classique et le dépouillement automatique est de 85%. Les discordances se produisent aux transitions d'un stade à l'autre et surtout entre le stade 2 et le stade 3. Sans tenir compte des discordances entre stade 2 et stade 3, on obtient une concordance de 91%.

Ce système d'analyse automatique est susceptible d'autres développements, tels que le dépouillement d'enregistrements continus chez l'animal.

Summary. Polygraphic recordings of human sleep are automatically analyzed by an original device, consisting of an analog component and a digital component (small computer). The device gives a minute by minute diagnosis of sleep stage, along with comments (artefacts) and numerical results for rapid and slow eye movements, muscle tone, heart and respiratory rates.

J.-M. GAILLARD, A. E. SIMMEN, G. BASTARD et R. TISSOT

Clinique Psychiatrique Universitaire de Bel-Air, CH-1225 Chêne-Bourg, Genève (Suisse), et SEN Electronique, Genève, 23 novembre 1970.

[1] R. J. BERGER et G. W. MEIER, Psychophysiology *2*, 141 (1965).
[2] TH. ESTRIN, Electroenceph. clin. Neurophysiol. *19*, 524 (1965).
[3] T. ITIL, D. SHAPIRO, M. FINK et D. KASSELBAUM, Electroenceph. clin. Neurophysiol. *27*, 76 (1969).
[4] B. MACGILLIVRAY et J. KENNEDY, Electroenceph. clin. Neurophysiol. *26*, 535 (1969).
[5] J. R. SMITH, M. NEGIN et A. H. NEVIS, IEEE Trans. Syst. Sci. Cyb. *5*, 278 (1966).
[6] J. D. FROST JR., Electroenceph. clin. Neurophysiol. *29*, 88 (1970).
[7] Camac: système d'instrumentation modulaire pour le traitement des informations. Communauté Européenne de l'Energie atomique (EURATOM) (Rapport EUR 4100f).
[8] W. DEMENT and N. KLEITMANN, Electroenceph. clin. Neurophysiol. *9*, 673 (1957).

PRO NATURA INTEGRA

Editorial note. The organization for economic cooperation and development (O.E.C.D.) sponsored through its educational division (CERI) the first International Workshop on Environmental Education at the University level which was held in Tours, France, April 5th–8th, 1971.

O.E.C.D. has to be congratulated to this timely effort which provided an excellent opportunity for a much needed exchange of experiences in this new field of environmental education. O.E.C.D. had requested position papers on environmental education from representatives of different member countries to serve as a basis for the discussion.

The analysis of these 8 position papers given at the Tours meeting by KARL E. SCHAEFER was welcomed as a stimulating contribution to the discussion and is published in the following article.

A second article containing an evaluation of the proceedings will be published later. H.M.

Workshop on Environmental Education at the University Level[1]

I. *Analysis of Position Papers.*

For this workshop several reports on environmental education had been submitted from representatives of different countries. They cover a wide range of new ventures in environmental education. These reports have been analyzed according to:

1. Objectives and programs.
2. Methods, e.g. subject matter and form of teaching.
3. University structure, departmental or interdisciplinary institutes.
4. Response to social change.

Tables I to III show a comparison of 7 reports. The first two reports by MISLIN (Germany) and RØNNING (Norway) show a certain similarity in objectives and programs. They both deal with a comprehensive environmental education and suggest environmental courses consisting of a 4–5 weeks introductory course and a 10–12 months survey course on environmental problems which goes into more depth. Students who have participated in these courses will not be able to solve specialized environmental problems. They will have had a general exposure to environmental problems. It is hoped that they will be able to utilize this knowledge in their individual profession.

The third report by BOISOT (France) emphasizes a technical operations research approach to solve environmental problems. It is explicitly stated that technology has ready-made solutions. They only obstacles are of a social and economic nature. It is also suggested that all environmental research should be centralized.

MISLIN and RØNNING propose geological sciences, ecological botany, biology and zoology, urban and regional planning and pollution as part of the subject matter to be taught in environmental courses. In both reports the form of teaching is oriented towards subject matter. In MISLIN's report additional emphasis is given to environmental problems and fieldwork. According to the proposals of MISLIN and RØNNING an interdisciplinary institute of environmental sciences is required for the training of 'generalists' (those who get a broad knowledge in environmental sciences). RØNNING suggests a loose coordination center without its own research facilities. The training of specialists in environmental sciences remains within existing departments.

The fourth criterion for the evaluation – response to social change – has been introduced because of the emphasis given to this aspect in the reports from Canada and the United States. This will be discussed later. Two categories are listed: a) action programs related to a community-university, and b) development of 'humanistic sciences', as suggested by RENÉ DUBOS. No action programs regarding a community university are listed in the reports of MISLIN and RØNNING. However, some aspects of a development of humanistic sciences can be found in MISLIN's report.

The two reports by NEWBOULD (Northern-Ireland) and CLAYTON (England) (summarized in Table II) are based on considerable experiences in environmental education at the university level. NEWBOULD emphasizes four main roles of environmental education at the university level:

1. Getting school teachers acquainted with environmental problems.
2. Broadening of the horizons of university students with regard to environmental problems.
3. Proper environmental education of land linked professions, such as planners, geographers, etc.
4. Training of specialists.

CLAYTON of the School of Environmental Sciences at the University of East Anglia emphasizes the need for a 'respectable scientific approach' in environmental education. In order to do this, a decision has been made to narrow the environmental education to geophysics and economic geography and planning, and exclude biology. The reason stated is that ecology has somehow become a 'semi-religious cult', and has shown to be unable to come to terms with the 'human climax'. The scope of environmental education, on the other hand, in the school of Northern Ireland is considerably larger. Three themes are emphasized in order to provide some unifying approach. 1. Energy balance. 2. Systems analysis. 3. Man-environment relation. The form of teaching in both cases is oriented towards subject matter. Environmental issues are not emphasized. The environmental sciences remain for CLAYTON a federation of subjects, while NEWBOULD indicates an integration of subjects.

The structure is based on departements, special courses are given within departments. Multi-disciplinary environmental studies are carried out as field studies to broaden the education of land linked professions at the University of Northern Ireland. There is a very cautious move towards interdisciplinary studies at the University of East Anglia. It is however emphasized that integrated course must be appropriate to the subject matter. There is no indication of a response to social change in the reports of NEWBOULD and CLAYTON.

The third Table gives a summary of the reports of LABEYRIE (France), FRANCIS (Canada) and WEIDNER (United States). These reports deal with much more ambitious programs consisting of 4-year studies and new forms of interdisciplinary institutes. WEIDNER reports on a whole new university (Wisconsin – Green Bay) focused on man and environment. Although similar in objectives and scope of programs, there are characteristic differences in the approach. LABEYRIE emphasized the need for an integration of specialities into a new discipline. Ecology is used as a basis for unification of different subject matters, and was thought to provide a possible leverage for humanization of industrial society. The report also gives some indication of the difficulties which arose in the effort to restructure the elements of traditional specialized sciences. At the University of Tours, the topics of the environmental curriculum were somewhat changed after the first year because it was found that ecology appeared too much associated with biology.

The 4-year program of environmental education at the University of Waterloo in Canada is conceived more in terms of 'processes than contents'. There is a departure from the traditional way of acquiring knowledge. There is an emphasis on practical activity and projects in connection with learning.

The University of Wisconsin – Green Bay represents a completely new approach to teaching. It consists of four theme colleges dealing with: 1. Biophysical environment. 2. Social environment. 3. Human adaptability. 4. Human identity. The teaching methods are quite different in all three reports from traditional ones. They are strongly oriented towards environmental issues in Canada and the United States, where issues such as pollution are frequently used as a 'pedagogical device for effective learning'.

In the reports of FRANCIS, WEIDNER and LABEYRIE the interdisciplinary structure is strongly emphasized as an absolute necessity to carry out new programs in environmental education. There is a certain compromise in regard to departmental structure in the reports of LABEYRIE and WEIDNER. The training of specialists in environmental sciences still relies on professional courses given in departments. However at the University of Wisconsin – Green Bay – the control of the budget is vested in the interdisciplinary colleges.

The criterion of relevance plays an important role in all three reports. To make the environmental education programs relevant for the students social action programs were instituted in the U.S. and Canada.

At the University of Waterloo 'Pollution Probes' were carried out and real 'Community-University' establishments were developed at the University Wisconsin – Green Bay. At the University of Tours/France however

[1] Tours, 5th to 8th April 1971, sponsored by the O.E.C.D.

Table I. Analysis of reports

Author	MISLIN (Germany)	RØNNING (Norway)	BOISOT (France)
Title	Protection of environment and nature conservation.	Some thoughts about curricula and organisation of environmental education.	A tentative organisational approach to the problems of the environment.
1. Objectives and purpose	Total environmental education. Kindergarten – Highschool – University 1-year survey course 2 + 3-year special courses. Partly optional training of generalists. Regional environmental research units. European Centre. Human Ecology.	Environmental education at all levels elementary school, highschool, University evening classes: adults. University: *broad environmental sciences.* They will not be able to solve specialized environmental problems 1. 4–5 weeks short course. 2. 9–10 month course. Training of specialists in traditional departments.	Technical approach to solve environmental problems (operations research approach). Technology has ready-made solution, only obstacles social, economic centralized environmental research.
2. Methods			
a) Subject matter	Geology, Biology, Sociology, Economy and 'Environmental issues'.	Soil sciences, ecological botany and zoology, urban and regional planning, pollution.	–
b) Form of teaching	Subject matter and issue oriented.	Subject matter oriented.	–
3. Structure			
a) Departmental Structure	Special courses in Departments. Training of 'Specialists'.	Training of specialists in environmental sciences within existing departments.	
b) Interdisciplinary structure	Interdisciplinary institute for environmental sciences. Training of 'generalists'.	Interdisciplinary institute only in secondary role as a loose coordination centre – without own research facilities.	
c) Compromise between 3a and 3b	Compromise.	Emphasis departments compromise.	
4. Response to social change			
a) Action community university	no	no	
b) Development of humanistic sciences (example R. DUBOS)	yes	no	

Table II Analysis of reports

Author	NEWBOULD (Northern Ireland)	CLAYTON (England)
Title	The teaching of environmental studies at university level	Environmental sciences at the University of East Anglia
1. Objectives and program	4 main roles of university environmental education. 1. School teacher. 2. Broadening of all university students. 3. Land linked professions 4. Training of specialists.	School of environmental sciences. Respectable scientific approach sought range: *geophysics – economic geography – planning.* View to employment.
2. Methods		
a) Subject matter	Scope of environmental education (3 themes emphasized). 1. Energy balance. 2. Systems analysis. 3. Man environment relation.	Exclude biology (ecology semi-religious cult) unable to come to terms with the 'human climax'.
b) Form of teaching	Subject matter oriented.	Subject matter oriented. Environmental sciences = *federation of subjects.*
3.		
a) Structure Departmental Structure	Departmental structure. Special courses in departments.	Courses broadened but still *departmental scale*; more radical grouping of subjects resisted.
b) Interdisciplinary Structure	Multi-disciplinary field study for broadening the education of land linked professions.	Cautious move towards interdisciplinary study; integrated courses must be appropriate to the field. Subject matter.
c) Compromise between 3a and 3b	Emphasis departments; beginning compromise.	Emphasis departments; beginning compromise.
4. Response to social change		
a) Action community university	no	no
b) Development of humanistic sciences (R. DUBOS)	no	no

Table III. Analysis of reports

Author	LABEYRIE (France)	FRANCIS (Canada)	WEIDNER (USA)
Title	Environmental education at the University level.	Objectives and approaches to environmental education. Some first reflections from a beginning experiment.	Environmental education. Implications for institutional structure.
1. Objectives and programmes	Center of advanced studies in ecology.	Department MAN. Environment studies.	Whole University Wisconsin. Green Bay Focus. Man environment.
	Integration of specialities into a new discipline. Ecology basis for unification and humanisation of industrial society. 1. 2-year course *Fundamentals*. Limits of natural resources, limits of human activities, biosphere and ecosystems. 2. 2-year course. *Interaction* man-environment.	10 teachers, 60 students (1970). 2 years required courses; 2 years optional courses. Environmental education conceived more in terms of processes than contents.	4 theme colleges. 1. Biophysical. 2. Social environment. 3. Human adaptability. 4. Human identity. Three concentrations in each college with transdisciplinary problem areas.
2. Methods			
a) Subject matter	Restructuring of elements of traditional special sciences for integration in unifying themes joint elaboration by teachers. Change of topics during first 2-year course, ecology too much associated with biology.	Curriculum: social sciences. Biology and ecology problem solving communication and visual aids. System theory and decision theory.	3 course types. 1. Disciplinary courses. 2. Professional courses. 3. Transdisciplinary problem oriented courses.
b) Form of teaching	Mainly subject oriented; ecology as a unifying theme, partly problem oriented.	Strongly issue oriented (pedagogical device) for effective learning.	Environmental education, issue oriented.
3. Structure			
a) Departmental structure	Reliance on departments for optional courses.	no	no
b) Interdisciplinary structure	Interdisciplinary structure – concentration of scientists.	Interdisciplinary structure – strong contrast to departmental structure.	Interdisciplinary problem oriented.
c) Compromise between 3a and 3b	Compromise.	No compromise.	No compromise in structure; option to take professional courses.
4. Response to social change	Relevance criterion need for synthesis in the specialized sciences.	Relevance criterion.	Relevance criterion, student initiative education.
a) Action community university	No community-university action program.	Social action in communities 'Pollution Probes'.	Community-university.
b) Development of humanistic sciences (R. DUBOS)	No report.	No report.	No report.

greater emphasis was placed on efforts to develop a synthesis of the specialized subject matter available for the teaching in environmental programs.

The major problems which could be identified in these reports on environmental education are the following:

1. Difficulties in the integration of subject matters of different specialities.
2. The questionable role of ecology.
3. The constraints imposed by the existing university structure.
4. The response to social change.

1. Problems regarding the subject matter were stressed in the reports from Europe, but not mentioned at all in the reports from America. The first problem is the framework itself: it is either too large and deals with most of the problems but can be considered then to be unscientific. Or it is too small and satisfactory from a scientific point of view, but inadequate as far as the environmental problems are concerned.

The integration of different disciplines provided considerable difficulties. There was a need for restructuring, to include only essential elements which lend themselves for synthesis.

Genuine interdisciplinary teaching is difficult to achieve. As one could expect, the assembly of specialists of different disciplines in one interdisciplinary institute does not by itself produce genuine interdisciplinary teaching. There is a development required of the teachers. The specialist has to become more of a generalist: a great joint effort of all specialists is necessary to revamp the elements of the subject matter to be used in teaching.

2. The role of ecology has been praised excessively and was thought to provide a unifying principle for the teaching of environmental education. It was felt by many that most of the specialists had to learn to use ecology in their work. Experience has shown ecology has its limitations, and it is understandable that some people shy away from using it at all, although it appears to go too far to turn it down as a 'semi-religious cult'. It is true, however, that ecology has not come to terms with the individual human being. Ecology works very well for families of plants and groups of animals, but up to now there does not exist an individual human ecology. However, the data for an individual human ecology are there. The tremendous amount of work which has been done in applied physiology with regard to under-water physiology and

space physiology has provided sufficient information under sufficiently accurate environmental conditions to develop an individual human ecology (SCHAEFER[2]). This type of individual human ecology could serve as a basis for the development of 'humanistic science' in the sense of RENÉ DUBOS.

3. The third major problem is the contraint to environmental teaching produced by the existing university structure. It is quite obvious that the introduction of environmental teaching into the existing departments requires a long time. It is an evolutionary process. On the other hand, environmental problems are of such urgency that they demand an immediate action program. Therefore, an approach which would suit most universities is the following: to create a long-range plan for incorporation of environmental subjects into present departments and to develop special courses in which environmental subjects are emphasized. This, then, can lead to the education of specialists. There is also a need for introducing students to the broad environmental problems. This – according to experience in most European countries and in the United States – requires some kind of interdisciplinary organisation, which might take on all kinds of forms depending on the individual university situation. It is quite clear, an interdisciplinary institute has to be independent of the departments as far as funding and the program is concerned.

In a report from the Swedish program, 3% of the total University budget is set aside for environmental education at an interdisciplinary institute. This institute is directly responsible to the President of the University and runs the program on environmental education with the participation of members from all departments.

The tasks of such interdisciplinary institutes include: a 4-week introductory course, a 10–12 months course, the opportunity for special research. There should be co-ordination with environmental research programs developed in individual departments.

4. Response to social change. The reports on environmental education from Canada (FRANCIS) and the United States (WEIDNER) emphasize in their programs the need to be responsive to social change. 'Environmental education embraces', according to WEIDNER, 'a philosophy of personal responsibility and involvement in the world'. Its basic elements are related to the 'Ethical Imperatives of Environmental Quality'. While the new philosophy has a familiar sound to it, the phrase 'Ethical Imperatives of Environmental Quality' reflects the moral aspect of the environmental problem which the students in the United States have expressed so strongly.

Although the environmental issues are coming more and more to the fore in Europe, the students in Europe have not yet reacted in the same way. It is interesting that the response to social change does not play a special role in the reports coming from European countries. However, the latter emphasize the struggle with the integration of the subject matter.

The emphasis in the two reports from Canada and U.S. is on action and not subject matter. Action to enlarge the university to form a Community-University. 'The stress is more on the process to learning than on the acquisition of knowledge and traditions' (FRANCIS). 'Flexibility, mobility and adaptability will be the survival skills of the future' (FRANCIS). These words describe objectives of programs directed towards the future. There is no sufficient experience so far to test the value of such programs. It is quite obvious that the halls of traditional sciences have been left, with these new educational ventures.

The subject matter of teaching in environmental education appears to be treated in both reports from Canada and the U.S. in an easy way as if there were no real problems, or if there were, they might be overcome by action programs.

The question arises whether these programs in environmental education really are fully responsive to the needs of the young generation which could be summarized as following: 1. Moral aspects of the relationship of man to his fellow man. 2. Moral aspects of man to nature. Both are intimately connected with each other. This problem has been discussed in an article on the 'Environmental Crisis' in the June 1970 issue of the journal Experientia[3]. Reference was made to W. W. HARMANN[4], the Director of the Educational Policy Research Center set up by the United States Office of Education at Stanford University in 1968, who comes to the conclusion that the 'Loss of the Self Image of Man' is underlying all the social ills of our time. The 'Lost Self' is also a central theme in CHARLES A. REICH's bestseller 'The Greening of America'[5].

What efforts have been made in science to contribute to the 'Recovery of Self' which the younger generation so desperately demands. The answer is: little or nothing, with the exception of such efforts as the 'Scientific Humanism' of RENÉ DUBOS. He speaks about it in his book 'So Human an Animal' which he dedicated to 'the Skies of the Ile de France and the Hudson Valley'[6].

DUBOS emphasizes that the reductionist approach of the traditional sciences which has been immensely fruitful in discoveries and has made it possible to convert knowledge into power does not lend itself to the study of complex systems such as that of man and environment. Typical for the reductionist approach is the formulation of a question because it is relevant to life. This is a starting point. Then it rapidly progresses from organisation to cell, to subcellular structures, to molecules and atoms. At the end of this line, the biologist has 'surprisingly little to say about what really matters in human life'. The study of parts has to be complemented by ecological studies of systems functioning as an integrated whole.

BERTALANFFY's 'General System Theory'[7] has been used for such purposes[8]. It appears that there is an increasing trend in modern biology to move away from the reductionist approach. It is more and more realized that it is not possible to define a system, a whole from the analysis of the parts. The Allpach Symposium in 1968 which has been published under the title 'Beyond Reductionism – New Perspectives in the Life Sciences'[9] provides a good survey of the extent of this new movement. It is characteristic that 5 out of 8 reports for the workshop on 'Environmental Education at the University level' emphasize the system theory as a unifying theme in their programs.

We are witnessing a fundamental change in the basic attitude underlying the scientific approach which has

[2] K. E. SCHAEFER, *Contributions to Individual Human Ecology*, Lessons from Submarine and Space Medicine, in Ecological Study of the Connecticut River Region (1968).

[3] K. E. SCHAEFER, *The Environmental Crisis*. Commentary on the 1970 European Conservation Year. Experientia *26*, 672 (1970).

[4] W. W. HARMANN, *The New Copernican Revolution*.

[5] CH. A. REICH, *The Greening of America* (Random House, New York 1970).

[6] R. DUBOS, *So Human an Animal* (Ch. Scribner's Sons, New York 1968).

[7] L. VON BERTALANFFY, *General System Theory, Foundations, Development Applications* (New York 1968).

[8] L. VON BERTALANFFY and A. RAPOPORT, General Systems Society for General Systems Research, Washington D.C.

[9] A. KOESTLER and J. R. SMYTHIES, *Beyond Reductionism – New Perspectives in the Life Sciences* (Macmillan, New York 1970; Deutsche Ausgabe, Verlag Fritz Molden, Wien).

been long time in the making. It is now beeing more strongly expressed through the needs of environmental education. As DUBOS points out the emphasis on humanitic criteria does not imply a retreat from science, rather it points out the need for 'enlargement and rededication of the scientific enterprise'[6].

Dr. DUBOS elaborated on his concepts of humanistic science in a lecture 'On Creative Adaption' which he gave at Yale on the 16th October 1970, to large audience of students. In this lecture, he emphasized the active part of man's adaptive responses governed by the decision of his self, in contrast to the image of passive submission usually associated with the word adaptation.

The active part of sense perception has been stressed by the German physiologists von HOLST[10] and HENSEL[11]. There is a growing body of physiological knowledge in which the self is placed into the center. This could serve to illustrate what is meant by 'Humanistic Sciences'.

Further development of the 'Humanistic Sciences' would respond to the real need of the present student generation. Here is an element which can bring to life the subject matter and can help to produce an integration of different bodies of physiological and biological knowledge. There is the unifying principle.

KARL E. SCHAEFER

Physiological Institute Zoology of the University, D-65 Mainz (Germany), 22 April 1971.

[10] E. VON HOLST, *Aktive Leistungen der menschlichen Gesichtswahrnehmung.* Studium gen. *10*/4, 232–243 (1957).

[11] H. HENSEL, *Allgemeine Sinnesphysiologie* (Springer Verlag, Berlin, Heidelberg 1966).

CONGRESSUS

Sweden
3rd International Conference on Medical Physics and Medical Engineering

in Göteborg, 30th July–4th August 1972

Author kits will be made available through the Secretary General by 1st October 1971 in connection with the distribution of a final call for papers. Secretary General: Roland Kadefors, 3rd ICMP, Department of Applied Electronics, Chalmers University of Technology, S-40220 Göteborg (Sweden).

India
8th International Symposium on the Chemistry of Natural Products

in New Delhi, 6–12 February 1972

The Symposium will be devoted mainly to the following topics for which it is proposed to organize separate sections: 1. Alkaloids. 2. Polyphenolics. 3. Terpenoids and steroids. 4. Macromolecules of biological interest (proteins, Peptides, nucleic acids, etc.). 5. Carbohydrates, lipids and related substances. 6. Other topics in natural products chemistry including physical methods of structure and determination.

The deadline for sending in abstracts is 1 September 1971. Further information by Prof. S. Rangaswami, Secretary, 8th IUPAC Symposium, Indian National Science Academy, Bahadur Shah Zafar Marg, New Delhi 1 (India).

CONSTRUCTIONES

European Training Awards in Brain and Behaviour Research

In cooperation with the Organization for Economic Cooperation and Development, a group of European Scientists have initiated an experimental schema under which younger scientists working on Brain and Behaviour can apply for awards to enable them to acquire training in a specialized area. The money to finance this training program has been provided by the Max-Planck-Gesellschaft. Successful applicants will receive travel and living expenses to enable them to study in selected laboratories. The normal duration of an award will be three months, but some longer term awards can be made.

Eligibility. To be eligible for an award, a candidate must already by undertaking research in the field of Brain or Behaviour in a laboratory situated in a member country of O.E.C.D. Applicants must produce evidence that their own research will benefit by the training for which they apply. In making the awards, preference will be given to candidates applying for a type of training that will assist them to follow an interdisciplinary approach in their own research. Candidates are expected to return to their original laboratory at the expiry of their training.

Nature of training courses. Some of the training programs incorporate formal course work, others involve the learning of techniques whilst undertaking closely supervised research on a particular problem. Training programs exist in the following subjects: Animal behaviour, brain biochemistry, brain modelling, ethology, experimental psychology, histochemistry, morphology, neuroanatony, neuropharmacology, neurophysiology etc.

Method of application. Further details of the scheme (including a list of laboratories participating in the training programs) and application forms can be obtained from:

The Executive Office, Foundation FUNGO, Laan van Meerdervoort 53D, Den Haag (The Netherlands).