

MIDWESTERN ASSOCIATION OF CHEMISTRY
MIDWESTERN ASSOCIATION OF CHEMISTRY TEACHERS
IN LIBERAL ARTS COLLEGES

TO: MACTLAC Members in good standing

FROM: Office of the Secretary-Treasurer
William Jewell College
Liberty, Missouri 64068

RE: 1975-76 Report

The DRAKE UNIVERSITY MEETING--October 10-11, 1975

Drake University in Des Moines, Iowa, was the host for the twenty-third annual MACTLAC meeting. A very interesting and varied program was planned and executed by Dr. Joe Woods and his staff.

The press of business prevented most of the executive committee from participating in the sessions as fully as they would have preferred. However, the following responses were graciously submitted by discussion group leaders.

The discussion session "Where do we go from here?" led by Joe Danforth, Grinnell, followed the old-fashioned MACTLAC format: Introduction of participants, suggestions of topics for discussion, and pertinent and non-pertinent introductory discussions. The topics considered during the two day session included: Planning for the next five years, departmental budgets, numbers of chemistry majors and (possibly) a changing interest of these majors, new safety regulations, effects of inflation, new curricula and new course structures, changing objectives of departments of chemistry, acquisition and servicing of large equipment on pinched budgets, faculty development and problems created by low faculty turnover, research opportunities for students at Argonne, and practical vs. theoretical courses.

For the Saturday morning session some participants were asked to present information for discussion on the following topics:

New courses and new course structures, Kathleen Parson,
Macalester and James Webb, Viterbo.

Curricular requirements, Dean Schwartz, Macalester.

Five year planning and departmental budgets, Dick Bayer, Carroll College

Meaningful discussions and exchanges of information on these topics occurred during the Saturday session. Especially meaningful exchanges and discussions about departmental budgets developed.

It soon became apparent that there was much information on budgets, purchase and maintenance of equipment, etc. that could be useful to members of MACTLAC. Eugene Jekel, Hope, agreed to see that there would be a session at next year's meeting devoted to these topics and Joe Danforth, Grinnell, agreed to assemble from representative colleges information that might be pertinent to a meaningful discussion.

Initially discussion centered on recognition on the boundaries within which higher education must operate; these included resource boundaries (limitations in funding, in staff potential based on human qualities, in time, and space plus inflation), student imposed boundaries (diversity in professional objectives and interests, impatience with traditional methods, lower math and reading skills, high demand for rapid feedback and gratification, and preoccupation with grades), and other boundaries (information explosion and professional

school/organization guidelines). An interesting exchange of ideas on superfluity in chemistry then took place; the danger in attempts to establish a comprehensive set of knowledge was emphasized. The successful¹ and unsuccessful enrichment courses taught at Drake were presented and most of the remaining discussion centered on innovations for the nonscience student. Process and tools for lifelong learning were seen as keys.

Successful implementation of course supplements was seen as dependent upon 1) identification of specialized interests which are not presently served within the existing curricular framework and 2) finding the appropriate individual or vehicle to meet the interest. It was emphasized that in adding a short supplement to a majors' course, the topic was less important than the person, the depth, and the process. It was pointed out that in enrichment of the nonmajors' curriculum, there was opportunity for multidisciplinary approach.

The overwhelming sentiment within the discussion group was in favor of using qualitative analysis in the general chemistry course and most in attendance were using it in one form or another. There was one individual who indicated that their institution did not use it because they felt that it was out of date and the benefits usually derived from exposing students to it could be realized in other ways.

Some of the reasons given for using qualitative analysis included the following: (1) it was a means to teach ionic equilibrium in a very meaningful way (2) it was very beneficial in teaching students how to write chemical equations (3) it was a means of exposing students to descriptive chemistry that is usually left out of lecture material in the general chemistry sequence (4) it provided an excellent means for students to learn careful laboratory techniques that would be needed in later courses (5) it provided an opportunity for students to perform a sequential analysis on a scientific problem.

Some of the discussion involved different approaches to the use of the qual scheme. It was indicated by most people that the amount of qual has been reduced in courses in order to allow time for equilibrium experiments not associated with the scheme. Others suggested that there was a benefit in not using the conventional schemes but, instead, letting students devise their own schemes through the use of a set of reagents and trial and error. These approaches are both being used.

Perhaps the most revealing idea to emerge in the discussion was the notion that the teacher is the one that makes the use or non-use of qualitative analysis beneficial to students. Those that use it are convinced that it is worthwhile and work to make it meaningful for their students. Those that do not see merit in spending time on it are probably better off if they do not try to use it.

Mr. John Church, Information Retrieval Division, Institute of Paper Chemistry, Appleton, Wisconsin, addressed the group on the use of Chemical Abstracts Concentrates, a computerized information retrieval system.

The group discussed the possible use of this service in lieu of printed indexes for Chemical Abstracts, the cost of which is becoming outrageous. Mr. Church and Mr. Jones pointed out that the combination of this service from the Institute with printed Section Groupings can provide a college with essential services of Chemical Abstracts for a total cost of \$925.00 per year,

a considerable savings compared to the cost of the printed CA plus index.

The group expressed interest in receiving printed information on this service plus a sample contract for services from the Institute, to discuss with their faculty, librarians, and deans. Mr. Church offered to make such a packet available. Mr. Jones offered to see about getting him a MACTIAC mailing list, in exchange for the opportunity of enclosing a questionnaire on CA subscriptions.

The Questionnaire is being circulated in conjunction with the Middle Atlantic Association of Chemistry Teachers in Liberal Arts Colleges, for the purpose of demonstrating to ACS the magnitude of the problem of CA in Liberal Arts Colleges. Dr. Donald Jones, Western Maryland College (former MACTLAC'er from Wabash) has requested this information. Dr. Jones is a new member of the ACS Committee on Professional Training.

Fortunately for those on the executive committee, interesting and challenging speakers were chosen to address the entire membership.

Dr. Henry A. Bent spoke on "Thermodynamics, Exercise, Physiology, and the Energy Crisis". Dr. Robert Hanson, director of EPDA Ames Lab spoke on "Materials".

A social hour following Friday's activities was well attended.

1976 MEETING

The 1976 meeting will be at Hope College in Holland, Michigan. By the time you have received this report you should have in hand the excellent program prepared by Dr. Eugene C. Jekel and his staff. I hope to see you at the meeting. Remember, registration fees were increased to \$2.00. Dues remain at \$1.00.

FUTURE MEETINGS

The site of the 1977 meeting will be Monmouth College in Monmouth, Illinois. That meeting will highlight the fact that MACTIAC is twenty-five years old. Because of that significant milestone in the continued development of our organization, the Executive Council would like to have the names of individuals that you believe deserve to be honored as HONORARY MEMBERS OF MACTIAC. The constitution on Honorary Membership reads as follows:

Article II - Membership, Section 2. Honorary membership shall be granted only by a unanimous vote of the Executive Council, and shall be reserved for those persons who have rendered extraordinary service to this Association or who have made especially noteworthy contributions to the improvement of chemistry teaching in the member colleges. Election to honorary membership shall be recognized by the presentation of a specially prepared and individualized scroll. Honorary members may also be Emeritus members as described in Section 3.

Nominations for Honorary Membership in MACTIAC should be in the hands of the President, Sister Mary Thompson or the Secretary-Treasurer, Marvin Dixon,

by 10 a.m. October 10, 1976. These nominations must be in writing and should have one or two seconding letters accompanying the nomination. PLEASE GIVE THIS MATTER SERIOUS CONSIDERATION.

Carleton College, Northfield, Minnesota, was selected as the site for the 1978 meeting of MACTIAC.

If your institution and department is interested in hosting a meeting of MACTIAC please let the Executive Council know soon. Such information will expedite their planning for future meeting locations. In order for an invitation to be considered letters from the department of chemistry and the office of the president indicating the willingness of that institution to host a MACTIAC meeting and the range of time over which the invitation would be considered effective should be submitted to the Secretary-Treasurer.

GENERAL BUSINESS MEETING, October 11, 1975

Dr. Jack Cook presided at the general business meeting. The minutes of the 1974 business meeting were read and approved. The Treasurer's report was approved.

The Nominating Committee of Bill Child, Quenton Peterson and Al Hansen presented the following slate of officers:

President - Sister Mary Thompson
President Elect - Addison Ault
Secretary-Treasurer - Marvin Porter Dixon

Nominations from the floor were requested. None were forthcoming; thus a motion that a unanimous ballot be cast for the slate presented by the Nominating Committee. The motion was seconded and passed.

The new State Representatives elected to three year terms were:

Dr. Patricia Fish - Minnesota
Dr. Thomas Holloway - Missouri
Dr. Arild Miller - Wisconsin

Jack explained that a provision for honorary and emeritus membership had been added to the recently amended constitution in its new printing but needed ratification by the organization. It was moved that Article II, Section 3 be passed. Following a second the Article passed.

A request was made for the nomination of individuals to become honorary members.

Berwyn Jones reported that a price break to small Liberal Arts Colleges on Chemical Abstracts is not to be. Other ways to obtain needed information were suggested. He recommends purchase of the sectional groupings of Chemical Abstracts (\$350.00) and then using a computer tape search through the Paper Institute, Appleton, Wisconsin. Mr. John Church from the Paper Institute explained the service to the C. A. Discussion Group at this meeting. Further, Berwyn hopes to find funding to support a work shop on how to use the service. A mailing from the Paper Institute is to be expected by member departments describing the service. Berwyn will include a questionnaire in the mailing.

ARCHIVES

Arild Miller is the Chairman of the Committee responsible for the Guidelines for the Archives. The Repository for the Archives is to be the Paper Institute, Appleton, Wisconsin. Dr. Miller reported that requests have

been made for archiveal material. The Secretary in the report of the meeting is to further request for materials. Ben Shawyer of Monmouth is to take Berwyn Jones' position on the Committee.

PLACEMENT SERVICE

Quentin Peterson agreed to continue to coordinate the Placement Service. He reported that of 125 cards sent concerning openings, 100 were returned. Information about 15 openings were mailed to approximately 20 MACTLAC members. Quentin recommends keeping a modest information sheet giving vital statistics, courses taught, specialities, notification of decision and nature of temporary position. The service is serving departments as well as the membership of MACTLAC. For information one should write to:

Quentin Petersen, Chairman
Department of Chemistry
Central Michigan University
Mount Pleasant, Michigan, 48859

POLITICAL AWARENESS

The Executive Committee had not appointed a Political Awareness committee. Through membership activity, however, the following guidelines and thought concerning the committee were proposed.

1. A preference for the committee activity to be political awareness rather than political activity.
2. Certain administration in GLCA & AMC are constantly aware of political activity and may be much more active than MACTLAC.
3. The Executive Committee is to appoint a Political Awareness Committee to:
 - a. make contact with GLCA, AMC, individuals in Washington, D.C., and others to see how MACTLAC could be of assistance and to see what program could be influenced by MACTLAC.
 - b. inform Department Chairmen of MACTLAC member institutions of legislation which could have impact on their programs so that each institution could decide the best course of action for themselves.
 - c. establish communication with other regional organizations.
 - d. be established next year.

If members were interested they were to notify Jack Cook or Sister Mary Thompson indicating their willingness to serve.

NEW BUSINESS

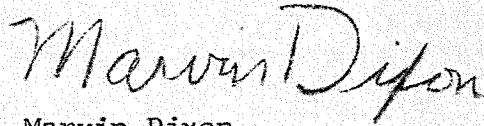
Sister Mary Thompson moved that a note of thanks and appreciation to Dr. Leland Johnson for his warm welcome on behalf of Drake and to Dr. Joe Woods and his faculty and staff for a pleasant and well planned meeting at Drake and for the free and open use of their fine facilities. The motion was seconded and executed with applause.

Remember the PLACEMENT SERVICE! Does your institution have an opening? Is your department seeking a new staff member - temporary or permanent? Are you seeking a new position-sabbatical leave, reduction in staff, a different climate? If any of these conditions effect you, then please let Dr. Quentin Peterson know of your needs.

Dr. Quentin Petersen, Chairman
Department of Chemistry
Central Michigan University
Mount Pleasant, Michigan 48859

Quentin will make available information he has to MACTIAC members seeking information on positions in other MACTIAC schools provided MACTIAC schools continue to inform him of existing and/or potential openings in their respective departments. Write to Quentin at the above address.

Sincerely,

A handwritten signature in cursive script that reads "Marvin Dixon". The signature is written in dark ink and is positioned above the typed name and title.

Marvin Dixon
Secretary-Treasurer