AFRICAN MATHEMATICAL UNION

COMMISSION ON THE HISTORY OF MATHEMATICS IN AFRICA

AMUCHMA-NEWSLETTER-17

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Chairman: Paulus Gerdes (Mozambique)
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Universidade Pedagógica (UP), Maputo (Mozambique), 15.5.1996

1.   OBJECTIVES

The A.M.U. Commission on the History of Mathematics in Africa (AMUCHMA), formed in 1986, has the following objectives:

a. to improve communication among those interested in the history of mathematics in Africa;

b. to promote active cooperation between historians, mathematicians, archaeologists, ethnographers, sociologists, etc., doing research in, or related to, the history of mathematics in Africa;

c. to promote research in the history of mathematics in Africa, and the publication of its results, in order to contribute to the demystification of the still-dominant Eurocentric bias in the historiography of mathematics;

d. to cooperate with any and all organizations pursuing similar objectives.

The main activities of AMUCHMA are as follows:

a. publication of a newsletter;

b. setting up of a documentation centre;

c. organization of lectures on the history of mathematics at national, regional, continental and international congresses and conferences.

2. RENEWAL OF AMU EXECUTIVE AND OF AMUCHMA

2.1 Renewal of AMU executive

At the General Assembly of the African Mathematical Union, which took place during the 4th Pan-African Congress of Mathematicians (Ifrane, Morocco, 18-24 September 1995) a new AMU executive was elected. Prof. Aderemi Kuku (Nigeria), the outgoing chairman was not eligible for reelection after having served two terms (1986-1991, 1991-1995). In his place, Prof. Ahmed Kerkour, President of the Moroccan Mathematical Society and President of the Al Akhawayn University (Ifrane), was elected the new Chairman. Prof. Daouda Sangare (Mali) and Prof. Badie Hassan (Egypt) were re-elected Secretary-General and Treasurer respectively.
The new Executive Committee of the AMU appointed the following mathematicians as chairpersons of its Commissions:
* Mathematics Education: Mohamed El Tom (Sudan);
* Mathematical Olympiads: Mrs. Nouzha El Yacoubi (Morocco);
* Women: Mrs. H. Swart (South Africa).

2.2 Renewal of AMUCHMA

On 22 September 1995 the Executive Committee of AMU decided to restructure the composition of AMUCHMA. Paulus Gerdes (Mozambique) and Ahmed Djebbar (Algeria) were reconducted to the posts of Chairman and Secretary respectively. Salimata Doumbia (Côte d'Ivoire) was appointed Treasurer. Reconducted as members of AMUCHMA were Maassouma Kazim (Egypt), Mohamed Aballagh (Morocco), Abdoulaye Kane (Senegal), and Mohamed Souissi (Tunisia). Officially instated as new members are: Kgomotso Garegae-Garekwe (Botswana), Ahmedou Haouba (Mauritania), Cornelio Abungu (Kenya), Ruben Ayeni (Nigeria), David Mosimege (South Africa), and David Mtwetwa (Zimbabwe).
The Chairman and Secretary take this opportunity to thank the outgoing members for their contributions, and wish the new members a fruitful participation.

2.3   First Symposium on the History of Mathematics in Africa

In mid September 1997 AMUCHMA intends to organise the First Symposium on the History of Mathematics in Africa, to take place in Côte d'Ivoire. It will be the principal activity of the celebrations of the 20th Anniversary of the African Mathematical Union. For suggestions, please contact the Chairman, Secretary, or Treasurer. Financial contributions may be sent to:
>   The Treasurer AMUCHMA, Mrs. Salimata Doumbia, IRMA, Université Nationale du Côte d'Ivoire, 08 BP 2030, Abidjan 08, Côte d'Ivoire

3. MEETINGS, EXHIBITIONS, EVENTS

3.1   The 4th Pan-African Congress of Mathematicians

The 4th Pan-African Congress of Mathematicians was held in Ifrane, Morocco, 18-24 September 1995. The following the papers were related to the history of mathematics in Africa:
*   Paulus Gerdes (Mozambique): Geometry of the sona sand drawing tradition in subequatorial Africa;
*   Salimata Doumbia (Côte d'Ivoire): The Theorem of Pythagoras in Africa.

3.2   36th International Mathematical Olympiad

The 36th International Mathematical Olympiad was held from 19-20 July, 1995, in Toronto (Canada). Among the 73 participating countries, only two African countries were represented: Morocco and South Africa. They achieved impressive results. Morocco's representatives received one silver medal, four

bronze medals and one honorary mention; South Africa's two bronze medals and four honorary mentions (CF. AMUCHMA 14: 3.3).

3.3   6th Pan-African Mathematical Olympiad

The 6th Pan-African Mathematical Olympiad — organised by the African Mathematical Union — was held during the Pan-African Congress of Mathematicians from 18-26 September, 1995, in Infrane (Morocco). Six countries were able to send delegations: Benin, Côte d'Ivoire, Gabon, Mauritania, Morocco and Uganda. The results by country were: 1. Morocco (gold medal), 2. Benin (silver), 3. Côte d'Ivoire (silver), 4. Mauritania (bronze), 5. Uganda (bronze), and 6. Gabon (bronze) (cf. AMUCHMA 14: 3.4).

3.4   Papers presented at recent meetings

*   José Barrios Garcia (University of La Laguna, Tenerife, Canary Islands) presented a paper entitled "Tara: a study on the Canarian astronomical pictures (Towards an interpretation of the Galdar Painted Cave)" at the III SEAC International Conference on Archaeoastronomy and Ethnoastronomy (Sibiu, Romania, 1-3 September 1995).

4.   CURRENT RESEARCH INTERESTS

4.1 Theses in progress

*   José Barrios Garcia (University of La Laguna, Tenerife, Canary Islands) is finalising a Ph.D thesis on "Arithmetic and Astronomy amongst the Berber inhabitant of Grand Canary and Tenerife in 14-15th centuries". His supervisors are Fernando Estevez (Dept. of Anthropology, University of La Laguna, Tenerife) and Mariusz Ziolkowski (Dept. of Historical Anthropology, Warsaw University, Poland).

*   Daniel Soares (Universidade Pedagógica, Beira branch, Mozambique) is preparing a Ph.D. thesis on the mathematical knowledge of traditional house builders in Mozambique, the transmission of it from one generation to the next, and explores the possibilities of using this knowledge in mathematics education.

*   David Mosimege (University of the North, South Africa) is preparing a Ph.D. thesis on traditional games with mathematical aspects in the North of South Africa, and on the possibilities of using them in mathematics education.

4.2 Biography of Hypatia of Alexandria

Michael Deakin (Monash University, Australia) is preparing a biography of Hypatia that contains English translations of all the genuine texts. Cf.Deakin's account of the primary sources for Hypatia's life and work (see #138, 190, 191).

5. NOTES AND QUERIES

This section is reserved for questions that readers would like to have answered; these are the 'queries'. The answers will be the 'notes'. If you have questions or answers about sources, dates, names, titles, facts, or other such matters related to the history of mathematics in Africa, frame them in clear and concise language and send them to the editors. If you are answering a question, make clear reference to that question. All readers may send both questions and answers. Each will be published with the name of the sender.

6. HAVE YOU READ?

6.1 On the History of Mathematics in Africa

#185 Argoud, Gilbert (Ed.): **Science et vie intellectuelle à Alexandrie (Ie-IIIe siècles ap. J.C.** [Science and intellectual life in Alexandria (1st-3rd Cent.)], Publications de l'Université de Saint Etienne (France), 1994, 225 pp.
  Collection of articles of which the majority are dedicated to Heron of Alexandria (1st century) and his contributions to mechanics and mathematics.

#186 Aujac, Germaine: **La Sphère, instrument au service de la découverte du monde: D'Autolycos de Pitane à Jean de Sacroboso**, Paradigme, Caen (France), 1993, 380 pp. [Review by Bernard Vitrac, *Historia Mathematica*, New York, 1995, Vol. 22, 196-202]
  The articles in this collection are grouped under three headings: 1. Spherics and geocentrics; 2. Spherics and 'sphéropée'; 3. practical applications. The following contributions concern the history of mathematics in Africa:
  * Euclid and Spherics (151-156);
  * Greek geography in Alexandria in the 2nd century (347-368).

#187 Brummelen, Glen Robert van: **Mathematical Tables in Ptolemy's** *Almagest*, Ph.D. Dissertation, Simon Fraser University, 1993, 428 pp.
  Attempts to understand the methods used to construct the tables in the *Almagest*.

#188   Brummelen, Glen Robert van: **Ptolemaic Interpolation: Method, Application and Tabulation in the *Almagest***, in: Tattersall, James (ed.), Proceedings of the CSHPM/SCHPM 19th Annual Meeting, Carleton University, Ottawa (Canada), 1993, Vol.6, 71-80

> An explanation for the errors that appeared in the interpolation tables in Ptolemy's *Almagest*, and a reconstruction of the tables that lends insight into Ptolemy's numerical methods.

#189   Brummelen, Glen Robert van: **Lunar and Planetary Interpolation: Tables in Ptolemy's *Almagest***, in: Journal for the History of Astronomy, 1994, Vol.25, 297-311

> Errors in the numerical tables in Ptolemy's *Almagest* are usually quite minor. Several auxiliary tables, however, contain some more serious errors. These errors are analysed and explained.

#190   Deakin, Michael: **Hypathia of Alexandria**, in: Mathematics Education, no. 8, 1992, 187-191

> Describes the life, times, and work of Hypathia of Alexandria (370-415 AD) (cf. AMUCHMA5: 4.1 and # 138)

#191   Deakin, Michael: **The Primary Sources for the Life and Work of Hypathia of Alexandria**, History of Mathematics Paper no. 63, Department of mathematics, Monash University, Clayton (Australia), 1995, 16 pp. (also posted at Landman's site on Hypatia: http://landman.hal.com/~landman/Hypatia)

> Describes the primary sources for the life, times, and work of Hypathia of Alexandria (370-415 AD) (cf. AMUCHMA5: 4.1 and # 138)

#192   Djebbar, Ahmed: **On mathematical activities in North Africa since the 9th Century**, in: International Study Group on the Relations between History and Pedagogy of Mathematics Newsletter, Washington (USA), 1996, No. 37, 11-13

> Partial reproduction of the paper published in AMUCHMA 15.

#193   Gerdes, Paulus: **Femmes et Géométrie en Afrique Australe**, L'Harmattan, Paris (France), 1996, 219 pp.

> French language edition of #175. The book deals with patterns invented by women in Southern Africa. The themes treated in the book are: decorated handbags, coiled baskets, mat weaving, string figures, decorated pottery, grass brooms, tattooing and body painting, bead ornaments, and mural decoration.

#194   IREM de Montpellier (Ed.): **Proceedings of the First European Summer University "History and Epistemology in Mathematics Education" / Actes de la Première Université d'Èté Européenne "Histoire et Épistémologie dans l'Éducation Mathématique"- 1993**, Université de Montpellier II, 1995, 598 pp.

The following are contributions by Africans and / or deal with mathematics in the history of Africa:
*   Bebbouchi, Rachid: À propos de la continuité [About continuity], 85-89;
*   Assem, Ali: Relations entre l'enseignement et les facteurs culturels — Qu'en est-il des mathématiques élémentaires en Algérie? [The relationship between education and culture — what is the case of elementary mathematics education in Algeria?], 305-307;
*   Aissani, Djamil: Bougie médiévale — centre de transmission méditerranéen [Medieval Bougie — centre of mediterranean transmission], 499-506;
*   Doumbia, Salimata: L'experience en Côte d'Ivoire de l'étude de jeux traditionnels africains et de leur mathématisation [The experience of Côte d'Ivoire in the study of traditional African games and their mathematisation], 549-555.

#195   Obenga, Théophile: **La Géométrie Égyptienne — Contribution de l'Afrique antique à la Mathématique mondiale** [Egyptian geometry — Contribution of ancient Africa to world mathematics], L'Harmattan, Paris & Khepera, Gif-sur-Yvette (France), 1995, 335 pp.

This book by the Congolese linguist and egyptologist Obenga, presents an overview of geometrical knowledge of ancient Egypt, stressing the relationship of this knowledge with know-how developed in other parts of Africa. He also underlines the influence of Egyptian geometry on the development of mathematics in ancient Greece, criticising eurocentric views on the history of mathematics (cf. #114).

#196   Rashed, Roshdi: **The Development of Arabic Mathematics. Between Arithmetic and Algebra**, Kluwer, Dordrecht / Boston / London 1994, 372 pp.

Updated translation of the 1984 French original (cf. #149).

#197   Sesiano, Jacques: **Koptisches Zahlensystem und (griechisch-) koptische Multiplikationstafeln nach einem arabischen Bericht**, Centaurus (Denmark), 1989, Vol. 31, 53-65

The Coptic number system and greek-Coptic multiplication tables as described in a short Arabic account. This 15th century work is

devoted to presenting the old Coptic numeral system which used 27 Coptic letters to abbreviate calculations.

#198   Yussupova, Gulnava: **Zwei mittelalterliche arabische Ausgaben der "Sphaerica" des Menelaos von Alexandria**, Historia Mathematica, New York (USA), 1995, Vol. 22, 64-66
      A description of two Arabic texts with commentaries on Menelaus "Sphaerica", one written by al-Tûsî (Persia) in the 13th century and the other by the 17th-century mathematician al-Jazdî (Persia).

#199   Zaslavsky, Claudia: **L'Afrique compte! Nombres, formes et démarches dans la culture africaine**, Éditions du Choix, Argenteuil (France), 1995, 328 pp.
      French language edition of the classic *Africa Counts: Number and Pattern in African Culture* (1973) (see #20).

6.2 Publications on the History of Mathematics, Ethnomathematics and Mathematics Education

#200   Bazin, Maurice & Modesto Tamez: **Math across cultures**, Exploratorium Teacher Activity Series, San Francisco (USA), 1995, 48 pp.
      Booklet with suggestions for teachers on how to use a multicultural approach in the maths classroom. Chapter 3 is on mathematics in Africa: *Counting like an Egyptian: Egyptian math* (pp. 23-32).

#201   Gerdes, Paulus: **L'ethnomathématique en Afrique**, *Plot*, Orléans (France), 1995, no. 70, 21-25
      Reproduction of the introduction to "L'ethnomathématique comme nouveau domaine de recherche en Afrique" (#130).

#202   Lumpkin, Beatrice & Arthur B. Powell: **Math: a rich heritage**, Globe Fearon Educational Publisher, Upper Saddle River NJ (USA), 1995, 48 pp.
      Booklet intended to motivate African-Americans to study mathematics. It explores "the African roots of modern mathematics" and explains "how math influenced the contributions and achievements of several African American in math-related careers" (p.5)

#203   Lumpkin, Beatrice & Dorothy Strong: **Multicultural Science and Math Connections — Middle School Projects and Activities**, Weston Walch Publisher, Portland, Maine (USA), 1995, 193 pp.
      Part 1 (From Africa to the Arctic) includes the following chapters related to Africa: 1. Nubia (3-16); 2. Egypt (17-37); 4.

Mozambique (44-52); 5. Kenya (53-61). Part 2 (Lives in Science and Math) includes the following chapters related to mathematics in Africa: Thomas Fuller (140-143) and Hypathia of Alexandria (144-149).

#204　Millroy, Wendy: **An ethnographic study of the mathematical ideas of a group of carpenters**, NCTM, Reston, Virginia (USA), 1992, 210 pp.

> The author conducted an ethnographic study as an apprentice carpenter in Cape Town, South Africa, to document the mathematical ideas that are embedded in the everyday woodworking activities of a group of carpenters.

#205　Zaslavsky, Claudia: *Africa Counts* **and Ethnomathematics**, For the Learning of Mathematics, Montreal (Canada), 1994, Vol. 14, no. 2, 3-8

> A description of the motivation for and some of the research leading to, the author's classic *Africa Counts: Number and Pattern in African Culture* (1973).

#206　Zaslavsky, Claudia: **The Multicultural Math Classroom: Bringing in the World**, Heinemann, Portsmouth (USA), 1996, 288 pp.

> Pleads for a multicultural mathematics curriculum and presents examples of mathematical activities for use in the classroom, including many examples from Africa.

7.　ANNOUNCEMENTS

7.1　Membership of the African Mathematical Union (AMU)

The executive committee of the African Mathematical Union (AMU) has taken the following resolutions:

1. Any African mathematical scientific or educational Society, Institute, or University wishing to join the AMU pays $ 100 as annual subscription.
2. Individual membership has been introduced. The subscription fee for individual African mathematicians is $ 20 annually.

The amounts should be transferred to the AMU account at:

> The Egyptian American Bank,
> 87 Moustafa Kamel St., Maadi,
> Cairo, Egypt,
> A/C: 01-12-588106-000

For more information, contact the treasurer of the AMU:

> Prof. Badie T. Hassan, Mathematics Department, Faculty of Science, Cairo University, Giza, Egypt

7.2   Award for Prof. Saliou Touré

The French Academy awarded the 1994 Medal of Francophonie to Professor Saliou Touré, for the coordination of the Interafrican Mathematics Collection of schoolbooks for French-speaking countries in Africa. Saliou Touré was for many years the Director of the Abidjan Mathematical Research Institute (IRMA) at the National University of Côte d'Ivoire, and Secretary-General of the African Mathematical Union. He was also Deputy-Minister of Education and is now Minister of Higher Education and Scientific Research of Côte d'Ivoire.

7.3   Mathematical Conferences in Africa

*   The Academy of Scientific Research & Technology and The Egyptian Mathematical Society are organising the 2nd National Conference of Mathematics on the theme *Algebra and its Applications*. The conference will be held in Cairo, 6-11 April 1996. For more information, contact:

> Prof. A. A. Ashour, Department of Mathematics, Faculty of Science, Cairo University, Orman-Giza, Egypt

*   The 'École Normale Supérieure' of Casablanca is organising an International Colloquium on Mathematics Education on the theme *Mathematics education in Morocco and teacher education: evaluation and perspectives*. The colloquium will be held in Casablanca, 29-31 May 1996. For more information, contact:

> Ahmed Daïfe, École Normale Supérieure, Route d'El Jadida, B.P.9172, Mers Sultan, Casablanca, Morocco (Fax: 02-98-53-26)

7.4   Mathematical Journals published in Africa

The Moroccan Mathematical Society publishes the *Journal de Mathématiques du Maroc*. The latest issue is Vol.3, 1995, 109 pp. For more information, contact:

> Journal de Mathématiques du Maroc, B.P. 1780 R.P. Rabat, Morocco

The Department of Mathematics and Informatics of the Eduardo Mondlane University (Maputo, Mozambique) publishes *Mathematica, Statistica, Informatica*. The latest issue is Vol.3, September 1995, 59 pp. For more information, contact:

> Manuel Alves, Department of Mathematics and Informatics, Eduardo Mondlane University, C.P. 257, Maputo, Mozambique

Editors of Mathematical Journals in Africa (incl. on Mathematics Education) are asked to send their latest issues so that they can be listed in future issues of the AMUCHMA Newsletter.

7.5 New edition of "World Directory of Historians of Mathematics"

In July 1995 the International Commission for the History of Mathematics (ICHM) published the third edition of the *World Directory of Historians of Mathematics*, which may be obtained from the Vice-Chairperson:

> Prof. Kirsti Andersen, History of Science Department, University of Aarhus, Ny Munkegade, DK-8000 Aarhus, Denmark (Fax: 45 8612 0740; E-mail: ievhka@aau.dk)

7.6 E-mail group on the History of Mathematics

This an an unmoderated mailing group for individuals with a serious interest in the history of mathematics. It deals with all aspects of the history of mathematics, including the following:
* Announcements of meetings on the history of mathematics;
* Information on new books and interesting journal articles;
* Discussion on the teaching of the history of mathematics;
* Using history in the classroom;
* Questions that you would like to have answered;
* and, hopefully, answers to these questions;
* * Discussion of questions unresolved in the literature.
Anybody interested in joining this group should send an e-mail to:

> majordomo@maa.org

consisting of the single line:

> subscribe math-history-list

The group is managed by:

> Frederick Rickey, Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403-0221, USA (E-mail: rickey@math.bgsu.edu)

7.7 Fifth TWAS History of Science Prize

The Third World Academy of Sciences (TWAS) invites submission of unpublished essays to be considered for a fifth History of Science Prize to be awarded in 1997. The research essay should summarize the major achievements of a Third World scientist prior to the 20th century, whose work has not hitherto been clearly recognised. It should indicate the impact of the scientist's contributions to his/her community and, where relevant, establish their influence on modern scientific thought. The length of the

essay (in English) should be between 20,000 and 50,000 words and be sent to TWAS by 1 December 1996. For more information contact:

>Helen Grant (History of Science Prize), Third World Academy of Sciences, c/o International Centre for Theoretical Physics, P.O.Box 586, 34136 Trieste, Italy (Fax: 39 40 224559; E-mail: twas@ictp.trieste.it)

8. ADDRESSES OF SCHOLARS AND INSTITUTIONS MENTIONED IN THIS NEWSLETTER

* Aballagh, Mohamed: Départment de Philosophie, Faculté de Lettres, Université de Fez, Fez, Morocco
* Bazin, Maurice: Exploratorium, 3601 Lyon Street, San Francisco, CA 94123, USA (E-mail: mauriceb@exploratorium.edu)
* Brummelen, Glen Van: The King's University College, 9125 - 50 St., Edmonton, AB, CANADA T6B 2H3(Fax: (403)-465-3534; E-mail: gvanbrum@kingsu.ab.ca)
* Deakin, Michael: Department of Mathematics, Monash University, Clayton 3168 Victoria, Australia (E-mail: mdeakin@monash.edu.au)
* Djebbar, Ahmed: Département de Mathématiques, Bâtiment 425, Université de Paris-Sud, 91405 Orsay Cedex, France (Fax: 33-1-47015917; E-mail: **Ahmed.Djebbar@math.u-psud.fr**)
* Doumbia, Salimata: IRMA, Université Nationale du Côte d'Ivoire, 08 BP 2030, Abidjan 08, Côte d'Ivoire
* El Tom, Mohamed: Mathematics Department, University of Qatar, Doha, Qatar (Fax: 974-44 86 42)
* El Yacoubi, Nouzha: Université Mohammed V, Faculté des Sciences, B.P. 1014, Rabat, Morocco
* Garcia, José Barrios: Depto. de Análisis Matemático, Universidad de La Laguna, 38271 La Laguna (Tenerife), Islas Canarias, Spain (Fax: 34-22-604023; E-mail: Jbarrios@ull.es)
* Garegae-Garekwe, Kgomotso: Department of Mathematics and Science Education, University of Botswana, Private Bag 0022, Gaborone, Botswana (Fax: 356591)
* Gerdes, Paulus: Universidade Pedagógica, P.O.Box 3276, Maputo, Mozambique (Fax: 258-1-422113; E-mail: paulus@up.uem.mz)
* Haouba, Ahmedou: Institut Supérieur Scientifque (I.S.S.), B.P. 1913, Nouakchott, Mauritania (Fax: 222-2-53997)
* IREM de Montpellier: Université de Montpellier II, Place Eugène Bataillon, 34095 Montpellier Cedex 5, France (Fax: 67.14.39.09; E-mail: irem@math.univ-montp2.fr)
* Kane, Abdoulaye Kane: Minister of Culture, Dakar, Senegal
* Kazim, Maassouma: 5, Said Bahgat St., Heliopolis, Cairo, Egypt (tel: 02 2443818)

* Kerkour, Ahmed: Chairman AMU, c/o President Al Akhawayn University, P.O.Box 104, 53000 Ifrane, Morocco (Fax: 212-5-56 71 50)
* Koelblen, Sabine: 4 rue des Jesuites, 62000 Arras, France
* Lumpkin, Beatrice: 7123 S. Crandon, Chicago, IL 60649, USA
* Mosimege, David: Department of Mathematics Education, University of the North, Private Bag X1106, Sovenga 0727, South Africa (Fax: 0152-268 2869; E-mail: mosimegem@unin1.unorth.ac.za)
* Mtetwa, David: Faculty of Education, University of Zimbabwe, P.O.Box MP 167, Mount Pleasant, Harare, Zimbabwe
* Obenga, Théophile: Faculté des Lettres et Sciences Humaines, Université Marien Ngouabi, B.P. 69, Brazzaville, Congo
* Powell, Arthur: Academic Foundations Department, Rutgers University, 175 University Avenue, Newark, New Jersey 07102, USA (Fax: 201- 648 5700; E-mail: abpowell@andromeda.rutgers.edu)
* Rashed, Rosdi: C.N.R.S./R.H.E.S.E.I.S., 27 rue Damesme, 75013 Paris, France
* Sangare, Daouda: Secretary-General AMU, 502 Avenue du 8 mai 45, 69300 Caluire, France (Tel. 33 - 78 23 31 72)
* Sesiano, Jacques: 1, rue Patru, 1205 Genève, Switserland
* Soares, Daniel: Departamento de Matemática, Universidade Pedagógica, C.P. 2025, Beira, Mozambique
* Souissi, Mohamed: 7 rue de Teheran, 2000 Le Bardo, Tunisia
* Swart, H.: Mathematics Department, University of Natal, King George V Avenue, Durban 4001, South Africa
* Zaslavsky, Claudia: 45 Fairview Avenue, #13-1, New York, NY 10040, USA

8. SUGGESTIONS

What are your suggestions for improving the AMUCHMA Newsletter?
What are your suggestions for other activities of AMUCHMA?
Send your suggestions, comments, information, questions and any other contributions to the chairman or secretary of AMUCHMA.
Send articles, books and manuscripts for the AMUCHMA Documentation Centre to the Chairman or Secretary.

9.   DO YOU WANT TO RECEIVE THE NEXT AMUCHMA-NEWSLETTER?

The AMUCHMA Newsletter, published in Arabic, English and French, is available free of charge upon request.

Send requests to the Chairman

    Paulus Gerdes
    P.O.Box 915, Maputo, Mozambique (Fax: 258-1-422113),

for the **English** version;

or to the Secretary

    Ahmed Djebbar
    Département de Mathématiques, Bâtiment 425, Université de Paris-Sud,
    91405 Orsay Cedex, France (Fax: 33-1-47015917)

for the **French** and Arabic versions.

Readers who would like to receive the **AMUCHMA Journal in Portuguese** should contact the editors, P.O.Box 915, Maputo, Mozambique.