

FROM THE TASK FORCE ON WOMEN IN CARTOGRAPHY TO THE ICA WORKING GROUP ON GENDER AND CARTOGRAPHY: WHAT WE LEARNED

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Abstract

In 1989, the President of the International Cartographic Association voiced his concern about "the disproportionately low participation of women in the ICA" just prior to announcing the establishment of the ICA Task Force on Women in Cartography. The mandate of the Task Force was to measure and encourage the participation of women cartographers or professionals in related fields in the activities of the ICA. The work initiated by the Task Force was subsequently carried out by the Gender and Cartography Working Group established in 1991. This paper will attempt to define what gender issues are and why they should be of interest to cartographers. It will provide a summary of Working Group activities and experiences and present possible strategies for the future.

1 Introduction

"If ICA is to prosper and grow then the Association must attract and involve cartographers who are currently under-represented in its ranks. These include the younger generation of cartographers, cartographers from developing nations, and women cartographers...". These were the words of ICA President, Fraser Taylor, when he voiced his concern about the disproportionately low participation of women and other under-represented groups in the association in 1989.

Out of this concern came the establishment of the ICA Task Force on Women in Cartography, which subsequently became the ICA Working Group on Gender and Cartography. These were the ICA's first major attempts to address how women's participation in the organization could be increased.

2 Gender Equality as a Societal Goal

The United Nations Decade on Women, 1975-85, with its theme "equality, development, peace", highlighted by international conferences in Merida, Copenhagen and Nairobi, did much to focus the world's attention on the reality of women's lives and work worldwide. With large-scale involvement of governments, non-governmental organizations (NGOs), and interested individuals, these conferences led to an encouraging international exchange of information and challenging inter-cultural dialogue that has resulted in progress for women in almost every sphere of life.

2.1 Further Development Needs

Unfortunately, such developments have not been systematic, nor have they benefited women in all countries equally. One innovative atlas, *Women in the World*, reminds us that:

"The official invisibility of women perpetuates the myth that what women do is less important, less noteworthy, less significant. Women are made invisible by policies and priorities that discount the importance of collecting information about them." [15]

The United Nations Forward Looking Strategies for the Advancement of Women, tabled at the end of UN Decade for Development of Women, have been now ratified by most of the UN member states. Though equality of the sexes is now established as a principle and policy matter in many countries, a recent submission to the 1993 UN Commission on the Status of Women acknowledged:

"Despite rational arguments for including women in decision making, there is an almost involuntary resistance. The exclusion of women from important consultations is so deeply ingrained in most cultures that change is unlikely without a conscious, deliberate effort to involve them... The transition to full equality between women and men is an evolutionary process requiring education and patience with oneself and others, as well as unswerving determination." [3]

The task of achieving gender equality on a societal level is gradually becoming understood as one that demands a full partnership of men and women: without the qualities, talents and skills of both women and men full economic and social development of the planet becomes impossible:

"Partnership calls for changes by both women and men. Women need to develop their own capacities and step forward to play an active role in solving the world's problems. Men, for their part, must learn to cooperate with women and encourage their efforts. When men actively promote the principle of equality, women will no longer have to struggle for their rights." [3]

The holding of a fourth UN-sponsored International Women's Conference in Beijing in September, 1995, is sure to provide both an enthusiastic and sobering accounting of the progress and barriers experienced by the world's women ten years after International Women's Decade.

3 Gender Issues and Cartography

Social change and gender issues are influencing every aspect of social and scientific research.

3.1 Gender Studies

While this short paper cannot hope to deal in any substantial way with this emerging interdisciplinary field, a few key concepts will be introduced that could be of value to the cartographic community.

Gender issues. Although they are typically perceived as women's issues, gender issues are in fact sex neutral, since they are based on the relationship between the sexes. A **gender perspective** acknowledges that so-called "gender neutrality" does not exist, and recognizes that what had been thought to be a "neutral" workplace is dominated by a variety of gender-associated values and assumptions. Many researchers now feel that denying *any* differences between the sexes is as imbalanced a view as upholding a rigid division of labour or roles based entirely on sex.

Gender studies and human resources research now acknowledge that men and women demonstrate at least some distinct values and approaches in the work place and have begun to speak of "**male-associated**" or "**female-associated**" styles. The following constitute a few examples only and should not be considered definitive pronouncements about how all men and women operate.

The old social order is increasingly being characterized as essentially the (unexamined or not-yet-deconstructed) traditional white male hierarchical power structure. Here, tasks are fragmented, specified, prescribed, predictable, non-random, fully scheduled and carried out without reference to context [10]. This structure has produced what has been described as a male-associated "command-and-control" management style that makes use of power derived from one's organizational position and from formal authority. This is a style most men, and many women, have learned and continue to use in the workplace.

Recently, various "female-associated" principles, values and skills have been identified as practiced (though not exclusively) by female leaders. These include, among others: a greater sense of the inter-relatedness of actions and events and more attention to context; a less hierarchical or formal leadership style; encouragement of participation; sharing of power, information, recognition and rewards; greater collaboration; an attempt to reconcile being efficient and being humane; a focus on communications, including highly developed listening skills; an emphasis on building relationships, long term interactions and the use of negotiation skills; and seeing work as being part of one's life rather than as separate from it or the only focus of it. [11, 14]

In some countries female-associated values and styles are beginning to infuse the workplace and to become valued by men, though change is gradual. Organizations are being re-designed; "the validity of the corporate pyramid, a structure that dictates top-down decision-making, individual competition, and centralized control" [14] is being examined. In some instances, a new corporate culture in which men and women share more equally is gradually developing.

3.1 Social Cartography

In 1991, an ICA Working Group was established to identify major theoretical issues facing cartography [20]. Of these, social cartography [4] has rapidly become a focus of theoretical research at present. As Török has pointed out:

"Cartography is more than maps. Map makers and users are human and members of societies. This ontological fact again puts cartography into a much broader context than its immediate professional environment. The social context of cartography, its institutions, professional organizations, the commercial side and the political-ideological effects on map making and other activities - these are a prospective field of present and future investigations...."

Cartography is a part of the cultural context, and digital technology makes possible temporary, dynamic, cartographic representations that become parts of our everyday life, that organize, transport and influence our world views. Maps as social images are very effective and the deeper understanding of the interrelations and co-existence of the different social contexts is the way how we develop cartography.... Creation is a divine act, so modern cartographers should not fear of giving up the myth of the objective and value-free cartography. Instead of this ideology we must accept, understand, and popularize the idea, that cartography was, is and hopefully will be modeling the social-natural reality and exercising [its] power to protect and enrich human lives." [20, pp. 25-6, 27]

Concepts such as *cultural context* and *inter-relationships*, which guide the social cartographer, are also crucial to gender studies.

Gender issues should matter to cartographers because the dynamic between male and female colleagues affects both individuals and the places they work. If, as our own and others' research tells us, women have less visibility and power in the workplace than their male colleagues, if their voices are mostly absent from policy and decision-making, if their experiences and perceptions are under-valued, whether intentionally or unintentionally, this represents a loss not only to women themselves, but also to men and to the workplace in general.

4 Promoting Gender Equality; Women's Participation within the ICA

Only recently have the ICA and other international organizations begun to question whether gender might play a significant role in their activities or orientation. As in most male-dominated fields, the ICA has always had much lower female than male participation. This was seriously addressed in 1989, when the ICA Task Force on Women in Cartography was appointed, with a mandate to measure and encourage the participation of women cartographers or professionals in related fields, such as surveying or GIS, in the activities of the ICA.

4.1 Task Force on Women in Cartography

To learn more about the women currently working in cartography and related professions, and the barriers and incentives that contribute to their participation or non-participation in the ICA, the Task Force on Women in Cartography undertook an international survey. Many of the findings support those cited in the gender studies section (cf. 3.1). About 1,300 questionnaires were sent out, and 600 returned, 412 being used in the tabulations. Questionnaires were received from women in 41 countries, with the largest numbers coming from the United States, Canada, Norway and Sweden.

The final report was published in 1991 [16], providing comprehensive information on the educational and professional profile of the respondents. It also examined the main barriers to women's participation within the ICA's work and provided recommendations on how to overcome those barriers.

Lack of knowledge about what the ICA is, how it operates and what it has to offer was identified as a major barrier to women's involvement in the organization. Further barriers were the participants' perceptions or assumptions about the ICA's style of operation, including perceptions that women's contributions are under-rated, that female-associated management and work styles are not valued, and that appointments are made through long-standing, exclusive male networks.

The most frequently cited professional barriers to participation in the ICA were the following: travel funds are not available at the participants' level; they are not encouraged by their employers to be involved in the ICA; and most are not in decision-making positions and have few publications.

Among the personal barriers mentioned, lack of time was frequently cited as a reason for not participating. Because the major responsibilities of home and family still rest with women, they find it difficult to balance family responsibilities and their professional life.

The primary incentives or encouragements to the participation of women in the ICA were identified as: providing more information about the ICA; the possibility of receiving travel grants that would match those of the employer; greater participation of women in the ICA Executive Committee, Commissions and structure generally; and the holding of regular sessions on women in cartography at conferences.

Based on the survey results, the Task Force on Women and Cartography provided a series of recommendations to the ICA Executive Committee. One suggestion which was unanimously accepted was the inclusion within the ICA statutes of the statement that the ICA supports the "promotion of genuine equality of opportunity within the ICA and its member national organizations". The other suggestions included the wider circulation of the ICA newsletter; preparation of a general brochure on ICA activities; the establishment of ICA travel funds; the provision of inexpensive accommodation at ICA conferences; considering the possibility of establishing quotas for ICA Commissions and Working Groups; and the creation of the Gender and Cartography Working Group with a mandate to further promote equal opportunities for women and all under-represented groups within the ICA.

4.2 Gender and Cartography Working Group

The overall goal of the Working Group is to promote equality of opportunity in all organizational units and at all levels of responsibility within the ICA and its member national organizations. Its specific goals are to study the present status of women and other under-represented groups, such as younger cartographers or cartographers from developing countries, and to design mechanisms to achieve more balanced contributions by gender, age group and geographical region. A further goal is to study the impact of technological change and societal developments on the cartographic profession, and the influence of female-associated values on this process.

Other Working Group objectives include: strengthening the network of women in cartography, providing a support group for women cartographers, providing information about women in cartography and about the ICA, and acting as a catalyst.

5 Major Accomplishments of the Gender and Cartography Working Group

In the first year of the Working Group's activities the focus was on the completion of the work initiated by the earlier Task Force, namely the completion of the digital database comprising tabulated results of its international survey on women in cartography. As a by-product of the digital data base, a directory of women in cartography was published. In subsequent years new activities have been added, such as educational seminars and workshops on various aspects of cartography as well as on gender-related issues; working relationships have also been established with other professional organizations, including UNESCO and the IGU Commission on Gender and Geography.

5.1 Women's Survey Results Data Base

A digital Data Base comprising results of the 1991 Survey of Women in the ICA was created for further study. It contains a wealth of information on the situation and opinions of women cartographers in 42 countries. A preliminary analysis of the results has been conducted by a member of the Working Group member, Dr. E. Krzywicka-Blum [12].

5.2 Directory of Women in Cartography, Surveying and GIS

To improve networking opportunities among women in cartography and related fields such as surveying and GIS, a directory of survey participants was prepared and distributed during the 1993 ICA conference. At present, the directory contains 380 entries of professional women from more than 40 countries; a second edition is being prepared. In addition to updating addresses, the new directory will include information such as the job titles and professional interests of the women listed, as well as phone and fax numbers and e-mail addresses. Among the first users of the directory was the organizing committee for the Barcelona conference.

5.3 Seminars on New Trends in Cartography

To provide role models for women cartographers and to create higher visibility for women's professional cartographic activities within the ICA, the Working Group members have organized several seminars on new trends in cartography. The first series of seminars were given in Mexico City, Mexico, in 1992, in conjunction with the first national GIS conference, organized by one of our members, Dr. Carmen Reyes. (Subsequently, Dr. Reyes was awarded a prestigious medal for her outstanding contributions to the field of GIS and Geomatics). The first seminar, entitled, "Introduction to GIS, Basic Concepts and Terminology" [7], was followed by examples of the implementation of GIS in several countries. Presentations were made by Working Group members from Canada, China, Norway, Mexico and the USA. The second seminar, geared to more advanced GIS users, was entitled, "Application of Expert Systems to Cartography and GIS" [8].

In 1994, a similar seminar was given in Istanbul, Turkey, including the new topics "Cartographic Visualization" [1] and "Hypermedia and Multimedia in Cartography" [9]. These presentations were part of a joint seminar entitled: "Teaching Conventional to Digital Map Production Lines and New Trends in Cartography" organized by the ICA Commission on Education and Training, the ICA Commission on Cartographic Production Technology and the Gender and Cartography Working Group. The chairperson of the organizing committee was Dr. Necla Ulugtekin, a professor of cartography at the Technical University of Istanbul and an active member of the Working Group.

These activities were strongly supported by the members of the Working Group, who will continue to pursue opportunities as they arise. We have received invitations to hold similar seminars in several other countries. At present, the Group is planning to upgrade its seminars by adding a "hands-on" component to provide more practical training.

5.4 Workshops on Gender-Related Issues

To further educate ourselves on gender-related definitions, issues, trends and developments, two workshops jointly entitled, "The Role of Women in Technological Change", were held during the ICA International Cartographic Conference in Cologne, Germany, in 1993. The first focused on the definition of feminism, particularly in relation to the field of geography. It emphasized that the essence of feminism is to create equal opportunities for members of both genders. The second focused on the role of women in science and other non-traditional professions such as surveying and cartography.

5.5 *Contacts with the IGU Commission on Gender and Geography*

Contact has been established with the IGU Working Group on Gender and Geography, which in 1993 became the IGU Commission on Gender and Geography. The ICA Working Group was invited to present a paper at the plenary session at the IGU Symposium on "Women's Paid and Unpaid Work in a Changing Global Economy", held at Rutgers University, USA, in August 1992. The Group has also received an invitation to present a paper at the next Symposium of the IGU Commission to be held in 1995 in Havana, Cuba.

5.6 *Contribution to Policy Making at the International Level, through Participation at UN Cartographic Conferences*

The significance of the work conducted by the Working Group was acknowledged by the presentation of invited papers at two UN conferences, the Fifth UN Regional Cartographic Conference for the Americas, held in New York in 1992 [2] and the 13th UN Regional Cartographic Conference for Asia and the Pacific [17], held in Beijing, China, in 1994. The following resolution, proposed in our paper at the Beijing conference, was passed by the Conference: "The Conference acknowledging the important role women play in surveying, mapping and charting, and noting the under-representation of women at professional, educational conference and networking activities, recommends that the National Survey, Mapping and Charting organizations create increasing opportunities for women to attend such activities and create opportunities for women for career advancement".

The overall feedback obtained by the Group in its four years of activity has been very positive. Scientists from several universities, in the fields of geography and sociology, have sent us copies of their publications with words of encouragement and congratulations for having initiated an important field of study [6,21]. More detailed information on the various activities of the Working Group can be found in the Quadrennial Report submitted to the ICA Executive Committee in March 1995 [13].

6 Future Plans

The Working Group's current term ends in 1995. This is the time to summarize and evaluate activities, and to make plans for the future. During the last Working Group annual meeting, members were in favour of continuing the efforts within the framework of an ICA Commission. Further, in response to a growing demand for educational workshops and seminars, the members of the Working Group have prepared a joint research proposal with Carleton University, Canada, Sao Paulo University, Brazil, and Geomatics Canada. The project will rely on the Gender and Cartography Working Group training team, and will be based on a network of women who will serve as the local organizers.

6.1 *ICA Commission on Gender and Development*

The activities of the Working Group related to social and organizational change require continuous effort. A proposal, therefore, has been submitted to the Executive Committee of the ICA, endorsed by the Canadian National Committee for Cartography, to continue the work carried out by the Working Group in a new ICA Commission to be called the Commission on Gender and Development.

The addition of the word "development" is warranted by the broader scope of the new Commission, as it would focus not only on gender issues but would turn its attention to the development of individuals from all under-represented groups, including younger cartographers and members from developing countries [19]. The new Commission will continue the activities carried out by the Working Group, such as the organization of educational seminars and maintenance of the Directory to facilitate networking. More emphasis, however, will be given to human resource development. The new name expresses the intended scope of activities, and would serve to attract members of the two other aforementioned groups, which, until recently, have had no administrative structure to channel their activities within the ICA. The achievement of more balanced participation within the ICA will significantly benefit the entire international cartographic community.

6.2 ELALA Research Proposal

To continue the most successful activity of the Working Group, namely the organization of educational seminars, a joint research proposal was submitted to an international competition organized by PAIGH (Pan American Institute of Geography and History) [18]. The project won the first prize in the geographic category of "projects of major proportions". It is a three year project entitled: "Geographic Information Processing and Electronic Atlases for Sustainable Development in Latin America". The unique aspect of this project is that it is based on an international network of women, who occupy prominent positions in the participating countries (Argentina, Brazil, Chile, Colombia, Mexico and Peru). The Gender and Cartography Working group will play a major role by providing the training component. Two other ICA Commissions, the Commission on National and Regional Atlases and the Commission on Tactile Mapping, have also expressed interest in active cooperation.

7 Conclusions

This paper has provided a summary of Gender and Cartography Working Group activities, starting with its first step, the Task Force on Women in Cartography. It has emphasized the evolution of the Group's thinking and approaches taken, and has indicated what the next steps can be, including the proposed ICA Commission on Gender and Development. The initial focus of the Task Force on Women was women's issues within the ICA. The Gender and Cartography Working Group focused on gender, emphasizing the interrelation of male- and female-associated values and the need for partnership. The newly proposed Gender and Development Commission will broaden this focus and enlarge the scope of activities to include not only gender concerns, but the development of all under-represented groups within the ICA. The activities of the group will be redefined within the broader scope of social and organizational change to which members wish to contribute.

The word "development" was chosen because of the need to attract and support under-represented groups within the ICA. It is our intention to augment the previous role of the Working Group to encompass human resources development in general. Such development could be accomplished directly by providing the means for professional development of Working Group members, or indirectly by individuals serving as role models to encourage other cartographers within the cartographic community. The most popular activity of the Working Group has been the organization of educational seminars on aspects of cartography that were of interest to the Working Group members. The importance of encouraging women was highlighted when a conference participant from Sweden indicated that reading about the existence of the Working Group encouraged her to participate and present a joint paper at the ICA conference in Cologne. She felt the support offered by the Gender and

Cartography Group assisted her in making her decision to attend, it was one of the most tangible and rewarding comments received about the contribution of the Working Group. Under the proposed new mandate, both genders and all under-represented groups must be given similar opportunities to contribute their unique perspective and experiences.

It is hoped that the general principles introduced here will stimulate further discussion and be given attention in Working Group activities. The under-representation of women and other minority groups must be recognized wherever it may exist in the cartographic community. It can only be solved with the full cooperation of local, national and international cartographic organizations. It is also hoped that increased opportunities can be created for women and members of other minority groups to participate in professional and educational conferences and networking activities. The Working Group on Gender and Cartography has come a long way but there is still much to accomplish. While the road ahead is long, we believe it to be an exciting one. We welcome the participation of all who share our goals and concerns.

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References

- [1] Artimo K., 1994. Visualization of Geographical Data. Helsinki University of Technology, Finland. Presented at the ICA seminar in Istanbul, Turkey.
- [2] Beaver, C., 1992. The Role of Women in Surveying and Mapping. Presented at the Fifth United Nations Regional Cartographic Conference for the Americas, New York, USA.
- [3] BIC (Baha'i International Community), 1993. Statement to the United Nations Commission on Status of Women, New York, USA.
- [4] Cultural and Social Cartography, 1993. Cartographica Special Issue, Vol. 30, No. 1, Ottawa, Canada.
- [5] Helgeson, S., 1990. The Female Advantage: Women's Ways of Leadership. Doubleday Currency, New York, USA.
- [6] Huffman N.H., 1994. Surveying the Other Map: Towards a Feminist Cartography. The Pennsylvania State University, Stage Collage, Pennsylvania, USA.

- [7] ICA Working Group on Gender and Cartography, 1992 and 1994. Introduction to GIS Basic Concepts and Terminology. Presented at the ICA seminar in Mexico City, Mexico in '92 and in Istanbul Turkey, in '94.
- [8] ICA Working Group on Gender and Cartography, 1992 and 1994. Application of Expert Systems to Cartography and GIS. Presented at the ICA seminar in Mexico City, Mexico in '92 and in Istanbul Turkey, '94.
- [9] ICA Working Group on Gender and Cartography, 1994. Hypermedia and Multimedia in Cartography. Seminar presented at the ICA Seminar, Istanbul, Turkey.
- [10] Franklin, U. M., 1984. Will Women Change Technology or will Technology Change Women? Knowledge Reconsidered: A Feminist Overview. Canadian Research Institute for the Advancement of Women, Ottawa, Canada.
- [11] Kundsinn, R. B., 1974. Women and Success. The Anatomy of Achievement (originally Successful Women in the Sciences), William Morrow and Co. Inc., New York, USA.
- [12] Krzywicka-Blum E., 1993. The Participation of Women in the International Cartographic Association; Analysis of the Questionnaires. Wroclaw University, Poland.
- [13] Quadrennial Report to the ICA Executive Committee, 1995. ICA Gender and Cartography Working Group. Ottawa, Canada.
- [14] Rosener, J. B., 1990. Ways Women Lead. Harvard Business Review, November-December 1990.
- [15] Seager, J. and A. Olsen, 1986. Women in the World: An Atlas. Pan Books, London, UK.
- [16] Siekierska E., D. Williams, and L. O'Neil, 1991. ICA Task Force on Women and Cartography: The Participation of Women in the International Cartographic Association (ICA): Report and Recommendations. Ottawa, Canada.
- [17] Siekierska, E.M., 1994. Gender and Cartography. A Background Document for the 13th UN Regional Cartographic Conference for Asia and the Pacific. Beijing, China.
- [18] Taylor D.R.F., R. Vasconcellos and E. Siekierska, 1994. Geographic Information Processing and Electronic Atlases for Sustainable Development in South America. Research Proposal, Carleton University, Ottawa, Canada.
- [19] Terms of Reference, 1995. Proposal to the ICA Executive Committee for the ICA Commission Gender and Development.
- [20] Török, Z., 1993. Social Context in International Cartographic Association. The Selected Main Theoretical Issues Facing Cartography. Report of the ICA Working Group on Theoretical Issues.
- [21] Van der Hoonaard W., 1994. Gender and Cartography; Some Hypotheses. Department of Sociology, University of New Brunswick. Fredericton, Canada.