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**Gender and Cartography**

# 9th United Nations Regional Cartographic Conference for Africa

## Gender and Cartography

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### 1. Introduction

In 1989, the President of the International Cartographic Association, Dr. Fraser Taylor, voiced his concern about "the disproportionately low participation of women in the ICA", and later said that "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...".

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 and last year the Commission on Gender and Cartography. These were the ICA's first major attempts to address how women's participation in the organization could be increased.

This paper on gender and cartography attempts to accomplish a number of goals – it explores the UN's role in promoting gender equality ; touches on social cartography ; attempts to explain what gender issues are and why they should be of interest to cartographers ; outlines some gender-based research in the field of human resources that should help men and women work together more fruitfully ; and describes gender-related research and activities of the ICA, including a summary of the 1991 study on women's participation in the ICA.

### 2. The United Nations and Gender Equality

It is fitting at this UN conference to recognize the pivotal role played by the United Nations in promoting the equality of the sexes, raising the status of women worldwide, identifying barriers to women's progress, and proposing and encouraging strategies to overcome them.

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 in a global context. With large-scale involvement of governments and non-government organizations (NGOs), these conferences led to an encouraging international exchange of information and a challenging intercultural dialogue that has resulted in progress for women in almost every sphere of life.

**Further Development Needs.** Unfortunately, such developments have not been systematic, nor have they benefitted 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... We do not presume a global community of women. What we do see, however, is that everywhere women are worse off than men ; women have less power, less autonomy, more work, less money, and more*

responsibility" (Seager and Olsen, 7).

Though equality of the sexes is now established as a principle and policy matter in many countries, a 1993 NGO submission to a UN Commission 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. Change, even when undertaken voluntarily, is rarely perceived as positive at first ; rather it is often profoundly disturbing... fundamental changes in the way human beings relate to one another are both necessary and inevitable, but will not occur overnight. 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"* (BIC, 1993). And more recently : *"The creation of a peaceful and sustainable world civilization will be impossible without the full participation of women in every arena of human activity. While this proposition is increasingly supported, there is a marked difference between intellectual acceptance and its implementation. It is time for the institutions of the world, composed mainly of men, to use their influence to promote the systematic inclusion of women, not out of condescension or presumed self-sacrifice but as an act motivated by the belief that the contributions of women are required for society to progress. Only as the contributions of women are valued will they be sought out and woven into the fabric of society. The result will be a more peaceful, balanced, just and prosperous civilization"* (BIC, 1995).

**A Partnership of Women and Men.** 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 have to struggle for their rights"* (ibid.).

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

### **3. Research trends in Cartography**

In 1991, an ICA working group was established to identify major theoretical issues facing cartography. Of these, social cartography has rapidly become a main focus of theoretical research at the present time. As Torok 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 modelling the social-natural reality and exercising [its] power to protect and enrich human lives"* (Torok, 25-8, 27).

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

#### **4. Gender Studies and Cartography**

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 should 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 gendered perspective acknowledges that so-called "gender neutrality" probably does not exist, and recognizes that what had been thought to be a "neutral" work place is probably dominated by a variety of gender-associated values and assumptions. Many researchers now feel that denying any differences between the sexes is probably as imbalanced 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 (Franklin, 84). This structure has produced what has been described as a male-associated "command-and-control" management style that uses power 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 (Kundsinn, Wilwin, Rosener). 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
- seeing work as being part of one's life rather than as separate from it or the only focus of it.

**Women in Non-traditional Fields.** Numerous studies have also examined the experiences of women who have entered non-traditional fields or who work in male-dominated environments. In one study, the two greatest obstacles to thriving on the job were reported as being accepted by male co-workers ("making it in a man's world") and being isolated (from other women) in the workplace. Many women have reported not being taken seriously by men, having their achievements overlooked, having to prove their competence to a greater degree than male colleagues to be accepted, being excluded from after hours activities and informal circles, "hitting the cement ceiling", and being excluded from the most senior ranks. Women often report dismay at the violation of ethical principles in the workplace. And, because it is usually they who feel primary concern in families for the preservation of marriages and the quality of parenting, and they who still take on the largest share of child care and housework, many women find it challenging to

strike a balance between personal and professional life (Carroll & Cherry, Milwid).

**Possibilities for Change.** In some countries female-associated values and styles are beginning to infuse the work place and 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" (Milwid, 269) is being examined. In some instances, a new corporate culture in which men share is gradually developing, one in which some men worry about how to be good parents and still get ahead, and speak more openly about the private costs of their careers.

Should cartographers and their professional organizations be concerned about gender ? 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 they have less access to learning new technologies, if they have more difficulty finding mentors, if their experiences and perceptions are undervalued, this represents a loss not only to women themselves, but also to men and to the work place in general.

#### **5. 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 in the activities of the ICA.

#### **Women in Cartography : Report and Recommendations**

In 1990, the Task Force undertook an international survey 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. Many of its findings support some of those cited in the gender studies section. About 1,300 questionnaires were sent out, and 600 returned, 412 being used in the tabulations. Questionnaires were received from women in 34 countries, with the largest numbers coming from the United States, Canada, Norway and Sweden. The respondents were generally well educated (most with a completed post-secondary qualification or higher) ; mainly work in cartography/GIS but come from a variety of experience categories ; work primarily in the public sector and to a lesser degree in the educational field and private sector; and are in the middle-to-higher job ranks. Most had little involvement with the ICA and more involvement at the national level.

The primary barriers to women's participation were identified as :

- Lack of knowledge about what the ICA is, how it operates and what it has to offer. This was identified as a major barrier to women's involvement in the organization.

*No existence of ICA awareness in my country (Sudan).*

- Participants' perceptions or assumptions about the ICA's style of operation : many respondents indicated their perception that women's contributions are underrated, female-associated management and work styles are not valued, and appointments are made through long-standing, exclusive male networks.

*I think there is low participation [of women] because Surveying and Cartography have traditionally been male dominated (South Africa).*

*Accroître la participation des femmes ne devrait pas prendre l'allure d'une marginalisation par rapport à la participation des hommes (Tunisia).*

- Professional barriers : travel funds are not available at the participants' level ; they are not encouraged by their employers to be involved in the ICA ; most are not in a decision-making position and few have publications.

*I am not in a position to attend international meetings because there are few chances offered (Sudan).*

- Personal barriers : lack of time was frequently cited as a reason for not participating. It is still difficult for many women to balance family responsibilities and their professional life.

*I would like to participate more fully in the ICA in order to have a full idea about ICA activities, hoping to increase my knowledge and to follow professional progress of my field (Sudan).*

*My department is so small thus I find myself involved in cartography, remote sensing, photogrammetry and GIS ... Further, GIS in Botswana is still in embryonic stage and I find myself doing management, teaching, research and development (Botswana).*

The primary incentives/encouragements to the participation of women were identified as :

- 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.
- The holding of regular women-in-cartography sessions at conferences.

#### **Recommendations and Results from the Task Force Report**

The Task Force Report and Recommendations were presented to the ICA Executive Committee at the Bournemouth Conference in 1991. The following recommendations were made, followed by the results achieved :

***A broader range of participation by women and other under-represented groups generally should be encouraged within the ICA.***

Recommendation : In order to create a more balanced and broader base for participation for the entire organization, amend the ICA Statutes to include the addition of the following clause : "The promotion of equality of opportunity in all organizational units and at all levels of responsibility within the ICA and its member national organization."

Result : This amendment was passed unanimously by the Canadian Cartographic Committee and has been adopted at the 10th ICA Congress and General Assembly in Barcelona in 1995.

***Lack of knowledge about what the ICA is, how it operates and what it has to offer is a frequently quoted barrier to women's involvement in the organization.***

Recommendation : Prepare and distribute general information brochures, posters or a videotape of the ICA, through the appropriate national organizations.

Result : A brochure on the ICA including information on its Commissions and Working Groups has been produced and is being widely distributed.

**Recommendation :** Request wider distribution of the Newsletter within member countries.

**Result :** This recommendation has been implemented on the recommendation of the Executive Committee of the ICA.

***More participation by women and other under-represented groups in the ICA Executive Committee, Commissions and Working Groups, and at conferences should be encouraged.***

**Recommendation :** Consider actively encouraging Commission Chairs, Country Representatives and national organizations to involve more women in their activities.

**Result :** The president of the ICA wrote to all chairs of Commissions and Working Groups to strongly encourage the implementation of this recommendation.

**Recommendation :** Consider whether quotas for Board seats or Commissions or Working Groups would be appropriate for the ICA, perhaps on a temporary basis.

**Result :** The ICA Executive Committee feels that this recommendation should not be considered at the present time.

**Recommendation :** Permit, not as a general rule, but selectively, in order to encourage the participation of women, minorities, and younger participants, representation by more than one per country on Commission and Working Groups.

**Result :** Implementation of this recommendation would require changes to the ICA Statutes.

***The primary professional barriers to ICA participation cited by respondents are that travel funds are not available at their level, and they are not encouraged by their employers to be involved in the ICA.***

**Recommendation :** Establish a fund to provide matching travel funds to selected participants at ICA conferences, particularly to younger, first-time and developing country participants, ensuring that 50% of such funds be made available to women for any one occasion.

**Result :** It was decided by the Executive Committee to fund some activities undertaken by the commissions and the working groups on a project basis. Within this framework, some assistance was made available to members of the Working Group on Gender in Cartography to assist members from developing countries to participate in seminars in Mexico. During the 10th General Assembly in 1995, a Promotion and Solidarity Fund has been created : travel awards to ICA international conferences will be given from this fund.

**Recommendation :** Request that conference organizers provide an inexpensive accommodation option, and encourage informal home-sharing and hotel-sharing for those who request it.

**Result :** This type of accommodation has been available at all major ICA events since the recommendation was made.

**Recommendation :** When possible, and in particular, when requested, address (or request national organizations to address) invitations to would-be participants in ICA conferences or through their employers.

**Result :** The Working Group has received a number of requests for its Women in Cartography data base so that members can receive individual mailings.

***The primary personal barrier to ICA participation cited by respondents with dependents, after lack of time, was child care requirements.***

**Recommendation :** Ask conference organizers to investigate the possibility of offering childcare arrangements during conferences, whatever age range is feasible, and announce a contact name for further information in conference brochures.

**Result :** While this can be encouraged informally, a response to this recommendation is within the

jurisdiction of individual conference organizers.

**Further study of the issues raised in the survey is required.**

**Recommendation : Establish an ICA Working Group on Gender in Cartography.**

**Result : The ICA Working Group on Women in Cartography was named in 1991, with a mandate to promote equality of opportunity in all organizational units and at all levels of responsibility within the ICA and its member national organizations. Its initial terms of reference for 1991-1995 were :**

1. To document the present status and trends in participation of various groups in cartographic activities.
2. To document the role of female associated values in changes in the cartographic profession.
3. To propose mechanisms which will ensure that equal opportunities do exist within ICA for all component groups.
4. To identify and analyze the perceptual differences according to gender in the creation and use of maps and other cartographic products.

**These terms of reference have been changed for the period 1995-1999 into :**

1. To serve as a resource on issues related to gender and Cartography  
by preparing papers for presentation at conferences or for publication in cartographic journals  
by preparing and disseminating a basic bibliography on topics related to gender and development within the context of cartography and related fields.
2. To facilitate professional contacts between cartographers in the international community  
by updating the Directory of Women in Cartography, Surveying and GIS  
by organizing joint projects with other ICA Commissions and Working Groups  
by maintaining contact with commissions in the "sister organizations" such as the International Geographical Union, la Fédération Internationale des Géomètres, and with UNESCO, which focus on gender and development related issues.
3. To enhance professional development opportunities for the ICA target groups (women, younger cartographers and cartographers from developing nations)  
by organizing special sessions at ICA conferences  
by holding seminars and workshops, featuring women and other target group members as presenters, to provide a forum for the development of professional skills by target group members and others.
4. To propose mechanisms which will ensure that equal opportunities exist within the ICA for all component groups  
by approaching the Executive Committee to consider special programs for target groups  
by promoting equal participation in the ICA, through the study of participation trends.

#### **ICA Working Group on Gender in Cartography : Activities**

The Working Group first met in Mexico City in November 1991. Believing their work will strengthen the ICA country member organizations as well as the ICA itself, members decided on the following objectives, in addition to their Terms of Reference : to strengthen the network of women in cartography, to provide a support group for women cartographers, to provide information about women in cartography and about the ICA, and to act as a catalyst.

Members plan to reach out to women's groups or commissions in other organizations, such as the Gender and Geography Commission within the International Geographical Union, with which a working relationship has already been established. The group has produced an International Directory of Women in Cartography in electronic format (Dbase, IBM/PC), including about 380 names to date.

While in Mexico, Working Group members presented two seminars: "GIS - an Introduction to Basic Concepts and Terminology" which included an overview of GIS activities in China, the United



States, Mexico, Norway and Canada ; the second was entitled "Application of Expert Systems to Cartography and Geographic Information Systems." A high degree of interest was shown, both in terms of content and in terms of the impact of seeing all-women panels of cartographers in the Americas. The Working Group is indebted to the ongoing interest and support of ICA president Fraser Taylor.

Other Working Group activities have included presentations at the IGU Symposium on Women and Work at Rutgers University in August 1992, and a workshop on gender held in Cologne in 1993. "Multi Media/Hyper Media" and "Introduction to GIS" sessions were also presented at a conference held jointly with the ICA Commission on Education and the Commission of Map Production Technology in Istanbul, Turkey in April 1994.

**Conclusions :** This paper has explored the recent history of gender equality and has touched on social cartography. It has examined some gender issues and some gender-based research in the field of human resources. It has reviewed the research and activities of the ICA related to women's participation.

While conditions, opportunities, economies and societal values vary tremendously throughout this region, some gender issues are almost universal in character. It is hoped that the general principles introduced here will stimulate further discussion and be given attention in national Working Groups. Consideration should be given to the following proposals for concrete actions :

- The under-representation of women and other minority groups should be recognized wherever it may exist in the cartographic community, and addressed at the local, national and international levels.
- Increased opportunities should be created for women and other minority groups in the cartographic community to participate in professional and educational conferences at regional level and networking activities. The importance of creating more role models for women in cartography cannot be over-emphasized.
- Discussion of gender issues in the cartographic community from a cross-cultural perspective should be promoted.

This conference should consider the recommendation : ***Acknowledging the unequal participation of African women in the cartographic both at the national and international levels, the conference recommends to systematically encourage the appointment of an increased number of women to the national delegations. Further, it recommends to establish a monitoring mechanism to ensure that the general targets for the increased participation of women are met.***

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