The position of women in surveying

Thesis

How to cite:

For guidance on citations see FAQs.

© 1990 The Author
Version: Version of Record

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online’s data policy on reuse of materials please consult the policies page.

oro.open.ac.uk
THE POSITION OF WOMEN IN SURVEYING

Clara H. Greed
I declare that this dissertation is entirely my own work, except where otherwise acknowledged in the text, and that it has not been submitted for any other degree or award.

...Clara H. Greed...

Clara H Greed.

1990.
THE POSITION OF WOMEN IN SURVEYING

The Position of Women in the Surveying Subculture, as Observed in Education and Expressed in Practice: With Particular Consideration of the Implications for the Nature of Land Use and Development.

Clara H. Greed, BSc. (Hons), Dip. TP, MRTP, MAS.
STUDENT: Clare H. Greed

DEGREE: PHD

TITLE OF THESIS: The Position of Women in the Surveying Subculture, as observed in education and expressed in practice: with particular consideration of the implications for the nature of land use and development.

I confirm that I am willing that my thesis be made available to readers and maybe photocopied, subject to the discretion of the Librarian.

SIGNED: Clare H. Greed

DATE: 20/1/90
ABSTRACT OF THESIS

Chartered surveyors provide professional advice on all aspects of land use and development. Only 3% of surveyors are women, but they comprise over 15% of students. This study investigates surveyors' attitudes towards women in the profession and society, and the implications for the nature of the built environment. A theoretical basis and model are developed, centred around the concept of a surveying subculture. The historical development of women's position in surveying is traced. The present day nature of surveying education and practice is investigated based on a qualitative, sociological approach, using ethnographic methods and unstructured interviewing. Examples from these sources are used to build up an image of the subculture, to highlight conceptual linkages, and to illustrate the processes which determine women's vertical and horizontal progression and role, emphasising all the 'little' occurrences which are the building blocks of the subcultural edifice vis à vis women. Whilst these 'aspatial' (social) factors are central in influencing 'what is built', surveyors' 'spatial' attitudes to different land uses are also considered. The male majority obviously has the greater influence on the built environment, but it was found that 'more' women entering does not necessarily mean 'better' or 'different'. Class could be as significant as gender: those who are the 'right type' may be described as bourgeois feminists, who seek to succeed in a man's world rather than alter it. Changes must be made within the organisational structure of the profession to enable more women to reach senior positions, and in surveyors' attitudes towards women and their needs, in order to alter the nature of the built environment for the benefit of women, whilst acknowledging the need to take fully into account the differences between and among women, as well as between men and women.
## CONTENTS

<table>
<thead>
<tr>
<th>Title Page</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract of Thesis</td>
<td>2</td>
</tr>
<tr>
<td>Contents</td>
<td>3</td>
</tr>
<tr>
<td>Appendices</td>
<td>11</td>
</tr>
<tr>
<td>Tables</td>
<td>12</td>
</tr>
<tr>
<td>Published Work</td>
<td>13</td>
</tr>
</tbody>
</table>

## INTRODUCTION

**Chapter I - Introduction**

- Introduction                     1
- The Concept of a Subculture       2
- The Research Question             3
- Antecedents to the Study          4
- The Nature of Surveying           6
- The Research Approach             8
- Conceptualisation of the Research 10
- The Model                         14
- Methodological Approach           15
- The Style                         16
- The Contents                      17
- The Position of the Researcher in the Research 19
- Is this Feminist Research?        20

## PART I CONCEPTUALISATION

**Chapter II - Conceptual Perspectives**

- Approach to the Literature Review 22
- Theoretical Perspectives on Gender, Class and Space 22
- Applicability of feminist theory 22
  - Macro                             26
  - Meso                              26
  - Micro                             27
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicability of mainstream theory</td>
<td>27</td>
</tr>
<tr>
<td>Macro</td>
<td>28</td>
</tr>
<tr>
<td>Meso</td>
<td>29</td>
</tr>
<tr>
<td>Micro</td>
<td>30</td>
</tr>
<tr>
<td>Broader spatial perspectives</td>
<td>31</td>
</tr>
<tr>
<td>Substantive Perspectives on Surveying Education and Practice</td>
<td>34</td>
</tr>
<tr>
<td>Some reservations</td>
<td>34</td>
</tr>
<tr>
<td>Conceptual levels</td>
<td>36</td>
</tr>
<tr>
<td>Macro</td>
<td>36</td>
</tr>
<tr>
<td>Meso</td>
<td>39</td>
</tr>
<tr>
<td>Micro</td>
<td>40</td>
</tr>
<tr>
<td>Surveying education</td>
<td>42</td>
</tr>
<tr>
<td>Joseph's findings</td>
<td>43</td>
</tr>
<tr>
<td>Surveying profession</td>
<td>47</td>
</tr>
<tr>
<td>Chapter III - Women and Urban Literature</td>
<td>51</td>
</tr>
<tr>
<td>Introduction</td>
<td>51</td>
</tr>
<tr>
<td>The Nineteenth Century</td>
<td>51</td>
</tr>
<tr>
<td>The First Wave of Feminism and Space</td>
<td>52</td>
</tr>
<tr>
<td>Retrospect</td>
<td>54</td>
</tr>
<tr>
<td>Traditional Urban Sociology and Women</td>
<td>54</td>
</tr>
<tr>
<td>Retrospect</td>
<td>56</td>
</tr>
<tr>
<td>The Development of A More Radical Urban Sociology and Women</td>
<td>57</td>
</tr>
<tr>
<td>The Second Wave of Feminism and Space</td>
<td>59</td>
</tr>
<tr>
<td>Conclusion</td>
<td>63</td>
</tr>
<tr>
<td>Chapter IV - Resolution</td>
<td>64</td>
</tr>
<tr>
<td>Explanation</td>
<td>64</td>
</tr>
<tr>
<td>Conceptual Resolution</td>
<td>65</td>
</tr>
<tr>
<td>The framework and the glue</td>
<td>65</td>
</tr>
<tr>
<td>Macro levels and linkages</td>
<td>66</td>
</tr>
<tr>
<td>Gender</td>
<td>66</td>
</tr>
<tr>
<td>Class</td>
<td>68</td>
</tr>
</tbody>
</table>
PART II THE WORLD OF SURVEYING

Chapter VI - The Background: Surveying up to 1900

Introduction 92
The Origins of Surveying 92
Change 96
Enclosure 99
Industrial Revolution 104
Publicity and admission 176
Grades are they different? 179
Performance in college 181

Table IV: Archetypal Example of Examination Final Position 182

Double Standards 182
Destination 183

Chapter IX - Fitting into Surveying Education 185

Introduction 185

Space Matters 186
  Atmosphere 186
  Regional location 186
  Inter-departmental differences 187
  Intra-departmental differences 187

The Normal Way of College Life 188
  Making a fuss 188
  Childcare 189
  The importance of sport 189
  Who is 'we'? 191

Styles of Communication 192
  Impersonality and professionalism 192
  Presentation of coursework 193
  Student interaction and participation 194
  Interaction between lecturers 195

The Ideal Woman 196
  Women and sport 196
  Presentation of self 197

The Role of Women 197
  The helper 197
  Exceptions 199
Chapter X - The Position of Women in Surveying Practice

Introduction 214
Table V: Percentages of Surveyors by Division 214
The Modern Surveyor 216
The Nature of Surveying Firms 217

Distribution of Women Surveyors 219
Table VI: Percentage of JO Membership by Areas 219
Methods and Attitudes 221

Employment 225
Table VII: Percentages of all Young Surveyors in Each Sector 226
Table VIII: Percentages of all Women Surveyors in Each Sector 226
Progress of the Young Woman Surveyor 227

Vertical Distribution of Women Surveyors 232
Private sector 233
Public sector 237

Horizontal Distribution of Women Surveyors 239
Conclusion 243

Chapter XI - Getting by in the World of Surveying 245

Introduction 245
The Professional Context 246
The office milieu 246
Comparisons and refugees 246

Work and Home 247
Career and children 247
Attitudes towards women 248
Coping and frame of mind 249
Crossing the divide 250
Disconnections and costs 250
Changes 251

Other People 251
Introduction 251
Typists 252
Fellow surveyors 254
Technicians 256
The men on the building site 257
Clients 258
Ethnic minority women 260
Negotiating 261
Marginal women 263

The Presentation of Self 264
Clothing 264
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self defence</td>
<td>267</td>
</tr>
<tr>
<td>Cars</td>
<td>270</td>
</tr>
<tr>
<td>Wordprocessing and computers</td>
<td>271</td>
</tr>
<tr>
<td>Conclusion</td>
<td>272</td>
</tr>
<tr>
<td><strong>Chapter XII - The Influence on &quot;what is built&quot;</strong></td>
<td>273</td>
</tr>
<tr>
<td>Introduction</td>
<td>273</td>
</tr>
<tr>
<td>The Practical Ethos</td>
<td>274</td>
</tr>
<tr>
<td>The commercial emphasis</td>
<td>274</td>
</tr>
<tr>
<td>Helping others</td>
<td>275</td>
</tr>
<tr>
<td>Land or design - a tension</td>
<td>277</td>
</tr>
<tr>
<td><strong>Attitudes to Different Land Uses</strong></td>
<td>279</td>
</tr>
<tr>
<td>Introduction</td>
<td>279</td>
</tr>
<tr>
<td>City wide level and fragmentation</td>
<td>280</td>
</tr>
<tr>
<td>Zoning and planning</td>
<td>282</td>
</tr>
<tr>
<td>Transportation</td>
<td>283</td>
</tr>
<tr>
<td>Community uses</td>
<td>286</td>
</tr>
<tr>
<td>Retail development</td>
<td>288</td>
</tr>
<tr>
<td>'Special' needs</td>
<td>291</td>
</tr>
<tr>
<td>Employment</td>
<td>293</td>
</tr>
<tr>
<td><strong>The Surveyors' Influence on the Development Process</strong></td>
<td>294</td>
</tr>
<tr>
<td><strong>Women and Development</strong></td>
<td>298</td>
</tr>
<tr>
<td>Different policies?</td>
<td>298</td>
</tr>
<tr>
<td>Women and property</td>
<td>300</td>
</tr>
<tr>
<td>Conclusion</td>
<td>303</td>
</tr>
<tr>
<td><strong>Chapter XIII - Conclusion</strong></td>
<td>304</td>
</tr>
<tr>
<td>Introduction</td>
<td>304</td>
</tr>
</tbody>
</table>
General Observations 305
  The position of women in surveying 305
  The effect of the subculture on what is built 305

The Nature and Role of Women in Surveying 308
  The surveying tribe 308
  The nature of women's success 309
  Women's role 310
    In education 310
    In practice 311

Implications for Theory and Methodology 314
  Introduction 314
  The relative importance of class 314
  The importance of gender 316
  Land and space 317
  Reservations 319
  Conceptual conclusions and pointers 321

Hopes for the Future 324
  Introduction 324
  Education 326
  Practice 328
    Organisation of work 329
    Attitudes 329

Conclusion 332

APPENDICES

Appendix I: RICS Membership Figures 1989 334

Appendix II: Figures 335
  Figure I: Role of the Surveyor in the Development Process 335
  Figure II: Conceptual Model 336
  Figure III: Realms of Relevance 337

Appendix III: Methodological Appendix 338
Quantitative Contextualisation 338
Question of Questionnaires 339

Use of Quotations 339
   Clichés 340
   Verbatim statements 341
   Paraphrases 341

Collection, Distillation and Presentation 342

Points of Interest in Unstructured Interviews 345
Archetypal Examples of Unstructured Interviews 345
   Telephone interview 346
   Group discussion 348

Questionnaire 350

Appendix IV: Comparisons with Other Professions 354

Appendix V: A Summary of the Range of Courses 356

Bibliography 359

List of Tables

Tables of Variations on the Splutter Effect 162
   Table I: Condensed Growth 162
   Table II: London Factor 163
   Table III: Progression through Years 164

Table IV: Archetypal Example of Examination Final Position 182
Table V: Percentage of Surveyors by Division 214
Table VI: Percentage of JO Membership by Areas 219
Table VII: Percentages of all Young Surveyors in Each Sector 225
Table VIII: Percentages of all Women Surveyors in Each Sector 226
Published Work Based on this Research


Material based on this thesis appears in the following:-


GREED, Clara (1989) " 'She's a good chap': women in construction", Architects and Surveyors Institute Year Book and List of Members, Highwood Publications, London.


INTRODUCTION
CHAPTER I INTRODUCTION

Introduction

Surveyors give professional advice on all aspects of land use and development, being particularly prominent within the private property sector. Their work is not limited to land surveying, but includes the valuation, investment, transfer, development, and management of land, and what is built upon it. Therefore, the professional decisions surveyors make have a major influence on the nature of the built environment. This study is concerned with 'chartered surveyors', that is those who belong to the main professional surveying body - the Royal Institution of Chartered Surveyors (RICS). It focusses on the position of women in surveying, and considers the implications of the attitudes manifested by surveyors for women in the profession and in society, and for the nature of the built environment which they inhabit. Women comprise slightly over 3% of the fully qualified membership of the RICS, and this figure is only increased to nearly 6% if student members are included (Appendix I). Taking the construction professions and trades together, less than 5% of those in practice are women. By contrast, 52% of the population of Britain is female (Morphet, 1983), with over 80% of women living in urban areas (OPCS, 1983). These factors may be irrelevant to urban policy making if women's needs are perceived as being no different from those of men; or if it is believed that the professional man is capable of sufficient disinterested neutrality to plan equally well for all groups in society (Dunleavy, 1980:112). But, as research and human experience have shown, women suffer disadvantage within a built environment that is planned by men, primarily for other men (Stimpson, et al, 1981; Hayden, 1984; WGSG, 1984; Little et al, 1988).
It is important to keep in mind what one prominent woman town planner has called, "the script for women in the professions in the Eighties" (Howatt, 1987). The last ten years have been marked by increasing numbers of women entering male dominated professions such as Accountancy, Medicine and Law (Spencer and Podmore, 1987). Surveying has been affected by this trend, and currently around 20% of surveying students in college are women (Source: RICS, 1989; Whittington, 1987). The reasons for this are complex. There has been increasing pressure to enter from women, but men have also welcomed this trend in order to compensate for the 'manpower' crisis caused by decreasing numbers of school leavers and an expanding property market.

The Concept of a Subculture

For the purposes of this study it was helpful to see the world of surveying as a subculture. 'Subculture' is taken to mean the cultural traits, beliefs and lifestyle peculiar to surveying. It is used both as a key theoretical concept and a convenient shorthand term for describing the general milieu of surveying. It is argued that the values and attitudes of the subculture, as held by its members, have a major influence on their professional decision making. The role of the subculture, as producer, reproducer or transmitter of values, is open to debate. The questions of what its actual boundaries are, and whether it contains within it significant sub-divisions, were to prove of importance in understanding the particular position allocated to women within surveying. The surveying subculture cannot be looked at in isolation but must be considered in relation to the social, economic, political and spatial context of contemporary Britain.
The Research Question

The aim of this research is not to study the position of women in surveying, 'just' in order to add to the increasing number of valuable studies of women in the traditionally male areas of the professions, science and technology (a major task in itself) (e.g. Swords-Isherwood, 1985; Whyte, 1986; Carter and Kirkup, 1989). Nor is the intention to make another study in the genre of how successful business women got where they are in a man's world, so that others might learn how to deal with the likely problems and thus imitate their exemplary role models (Kanter 1977; Marshall, 1984; La Rouche and Ryan, 1985). Rather, the aim is to consider the ways in which the values of the surveying subculture might have an influence on the nature of urban development. However, material from these areas is of relevance in order to understand the mechanisms that women encounter within the structures of the surveying profession, which limit them achieving their full potential.

The research problem may be encapsulated into a single question: How do the attitudes of the surveying subculture towards women affect what is built?

The research seeks to make a contribution to filling in one part of the answer to the classic urban question, "Who gets what, where and why?" (Pinch, 1985; Diamond, 1986). Its antecedents are in the literature of urban resource allocation, and urban sociology from a range of perspectives, albeit ungendered (Pahl, 1977; Pickvance, 1977). This material is not rejected as irredeemably biased because it is 'male', or at least 'malestream' (Siltanen and
Stanworth, 1984: 186), but is drawn upon as a means of developing concepts: but with caution. The question that constantly confronts the feminist researcher in examining urban literature and other relevant areas, such as work on the sociology of education (Acker, 1983a), is whether the apparent silence on gender issues, in what is otherwise invaluable work, should be interpreted as meaning that women are included 'in' or 'out' of the discourse.

There are other actors, apart from surveyors, involved in the development process as shown diagrammatically in Figure I in Appendix II (Kirk, 1980: 38-41; Ambrose, 1986: 68-69), including architects, town planners, councillors, and the financial institutions and developers. Most of these groups are predominately male. Surveyors cannot be 'blamed' for everything as their power varies according to the particular situation, and not all surveyors are directly involved in urban decision making. It is not possible to isolate either surveyors, or women in surveying, from the surrounding societal and professional context within which they operate. Nor can one absolutely 'prove' the precise influence of the surveying subculture on urban society in general, or its effects on a specific development in particular.

Antecedents to the Study

Whilst there has been considerable emphasis on studying the other urban decision makers and 'managers' (Pahl, 1977; Bassett and Short, 1980) in the public sector of town planning and housing, the power of those landed professions working for the private sector from whence the initiative for development often derives, has been
relatively neglected (except for Marriot, 1967; Ambrose and Colenutt, 1979; Simmie, 1981). There have been very few studies of surveyors themselves, as against studies of urban processes or other landed professions, with the notable exceptions of Michael Thompson's comprehensive historical study of the profession (1968), and Martin Joseph's valuable work on the professional socialisation of estate management students (1978, 1980; 1988: chapter 16). Women are scarcely mentioned in these studies. The surveyors have occasionally produced reports about themselves, although, with some notable exceptions (JO, RICS, 1986, 1988), reference is not made to women surveyors. A collection of conference papers on women land surveyors in other countries was produced for the International Federation of Surveyors conference in 1983 (FIG, 1983).

Twenty years ago (1968: 316) Anselm Strauss commented that no sociologist had written about what he called the odd and unusual professions of realtors and investment brokers in the USA, and it would seem that this has not yet been fully rectified on either side of the Atlantic. This is in marked contrast to other professions such as law, management, and in particular medicine, the more ethnographic examples of which in the genre of Becker et al (1961) being of most interest. In recent years this work has been joined by a small but growing area of work by women on women medical students, such as Lorber (1984), which has demonstrated that findings related to men cannot be indiscriminately applied to women in the 'same' situation.

The findings of such studies, whether feminist or 'malestream', are not necessarily transferable across the Atlantic. Surveying is an especially 'English' professional monopoly which developed to serve
the needs of landed interests in society. Land as a representation of power is particularly strong in English society, possibly because of its scarcity within an island setting. Surveying does not manifest itself in quite the same form in other countries; the professional cake being divided up between engineers, architects, town planners and others. The scope and nature of the profession are major determinants of women's potential role as surveyors. The profession is still undergoing change, and at present is having to examine its raison d'être in view of the 'threat' of 'harmonisation' with the European Community in 1992 (DTI, 1988).

The Nature of Surveying

The RICS is the largest and oldest of the professional bodies concerned with land use and development in Britain (Thompson, 1968), many times larger than the other main landed professions, namely the Royal Town Planning Institute (RTPI) and the Royal Institute of British Architects (RIBA), and arguably commensurately greater in influence on the nature of the built environment (Appendix IV). It is not one profession but many, comprising within its scope different specialist sections (called 'divisions'), practising within a diversity of professional fields (RICS Directory, 1989). Although a surveyor is often seen by the general public as a man standing at the side of the motorway (Menzies, 1985), wearing an orange anorak, and holding a surveying pole, this is a false but significantly male image. Such men are likely to be surveying technicians.

The surveying spectrum (Appendix I; RICS, 1986a; Greed, 1989) extends from technological areas such as minerals surveying, where few women
are found, through to quasi-technological areas such as quantity surveying in which about 3% of practitioners are women; and across to more commercial areas such as estate management where up to 25% of students and about 10% of practitioners are women (RICS, 1986, 1988). In particular a high proportion of women (not all of whom are professionally qualified) are in residential estate agency work. At the other end of the spectrum are the smaller, more socially orientated areas of practice such as housing management, where about 50% of students are women. There is debate amongst surveyors, as to whether housing managers count as 'real' surveyors. Many women practitioners believe that housing is currently being recolonised by men who see it as an appropriate area for power and control. Such are the contradictions and complexities of the world of surveying.

Throughout its history, the boundaries of the profession have fluctuated to include or exclude certain groupings for a variety of reasons. Surveyors are great pragmatists and survivors, flourishing under Labour (Eve, 1948) and Conservative governments with equal ebullience. However surveying is generally accepted to be a 'conservative' profession in all senses of the word, and yet at present it would appear to be in the interests of the profession to admit women. The reasons for this apparently enlightened attitude required further investigation. Only a certain sort of woman would appear to be attracted to and accepted into the world of surveying. It would seem that women who subscribe to the values of the business woman or bourgeois feminist are most likely to be 'the right type' (Hertz, 1986). This was to become one of the key observations that developed in the course of this study in relation to understanding the women themselves. The rise of the bourgeois feminist (arguably a form
of pseudo-feminist) is linked to wider political changes in Britain. Not only have the numbers of women surveyors increased, the whole profession has expanded numerically, and grown in prestige in recent years, under the enterprise culture created by the Conservative government of the Eighties.

**The Research Approach**

In order to investigate the position of women in surveying, it is necessary to study the men as well as the women. Obviously in a profession that is 95% male, the men have the greater influence on urban decision making. An investigation of how (or indeed if) men in the landed professions perceive women and their needs as members of urban society, and thus as potential recipients of urban goods and services, is of great importance. Their perceptions influence the extent to which women's needs are taken (seriously) into account in the development of urban policy. Therefore attention is given to understanding the male backcloth and stage upon which the women play out their professional roles.

At a time when significantly greater numbers of women are entering the profession, it is vital to investigate the question of whether 'more' women will mean 'better' or 'different' regarding the influence they might have on the nature of the profession and the policies deriving from it (Greed, 1988). It is important to investigate their motives for entering the profession, and to understand 'what makes them tick'. Secondly it was found that although there was a number of older women in the profession, their influence did not appear to be commensurate to their numerical presence. It was necessary to look more carefully
at the mechanisms at work that might limit women's role and progress. Therefore, emphasis has been put on listening to individual women at the personal level, as well as hearing the pervasive male voice present throughout the subculture. Talking to the women themselves produced alternative insights from 'below' as to how they experienced the surveying profession, and what was 'really' happening within it.

Many women presented their view of surveying from the perspective of their own experience (Greed, 1990). Such personal accounts became a key empirical component of the study. Although I talked to a number of men surveyors too, a representative study of them was not made, but one could not help but make a sub-conscious comparison with the male reality as 'the norm' against which the women's experiences were inevitably measured. Likewise Gallese (1987: 20) states that she found it virtually impossible not to compare the business women in her study to successful men. It should not be assumed that women entering the profession will necessarily hold different views from the men, nor that they are likely to be feminist, or that they will become radicalised by their experiences of being in a minority in a male subcultural group. It is a fascinating question as to why some women surveyors become feminists, and others do not, when they appear to have similar life experiences. Regardless of their individual views, many women and men surveyors would argue that the nature of a surveyor's personal beliefs is a private matter which should not influence 'his' professional judgment. Even if women's views are 'different' upon entering the landed professions, such are the powers of professional socialisation (Gibbs, 1987) that they are likely to change. Many do nevertheless retain an alternative viewpoint, and some possess a highly developed 'double-consciousness' (Rowbotham,
1973) and are able to objectify and discuss their experiences with
great insight.

Conceptualisation of the Research

As the research developed the emphasis shifted from looking at the
built environment i.e. the spatial end product, to examining the
aspatial (social) processes (Foley, 1964:37) and value systems which
determined its nature. One of the conclusions of this research is that
the spatial and aspatial cannot be separated and that to make progress
for the future, changes must be made in professional organisational
structures to the advantage of women, to facilitate the 'coming
through' of alternative people and values to change the nature of
policy making. Both the horizontal and vertical distribution of women
within the profession was investigated as their relative position
would determine 'who', male or female, would be in the right position
with the power to make policy decisions and thus shape the built
environment. Not only were women under-represented in the higher
levels of the profession but women were more numerous in some
specialist areas, such as residential work, than in others. Much of
this study is concerned with the subcultural values and processes
that contribute to this situation, and which play a major part in
ensuring the reproduction over space of social relations (Massey,
1984:16): in this case the imprint of gender relations on the built
environment.

Emphasis was placed on developing a conceptual basis expressed as a
model, to justify the tenuous link between the influence of surveyors'
personal attitudes and values and the nature of the built
environment, as mediated through the vehicle of the subculture. This involved a literature review across a diversity of realms. From an initial base in urban studies, plus a variety of feminist material, the range of sources broadened taking in literature on professional socialisation, management theory, occupational psychology and sociology of education. Material from traditional 'bourgeois' sociology, concerned with the details of human interaction and social groups, was combined with material from a more radical 'neo-marxian' tradition which gave a broader structural perspective. Class as well as gender (to varying degrees in different contexts) proved to be a major factor in determining 'who' was considered suitable and 'the right type' within the surveying subculture, and therefore who was likely to gain a position of power and influence to shape the built environment. However relatively speaking for the purposes of this study, Weber was of more use than Marx. The emphasis on 'class' and 'capitalism' in some branches of theory precluded any discussion of gender by rendering it secondary or 'trivial'. The fashion has been for the emphasis to be on 'structure' rather than on the personal life experience of the individual, i.e. the 'agent' in much urban sociological work (Giddens, 1984). The tide now seems to be turning towards a more person orientated form of research, which is nevertheless strongly linked to theory, and this research reflects this trend.

For the purposes of this study a person's 'class' is taken as being based on more than economic position (or current occupation) in society, but is seen as being based on a composite of factors, including economic 'class', but also embracing social and family background, education, and personal characteristics (in the
commonsense understanding of nature of dress, speech, personal interests and perspective, and manners (all heavily gendered attributes, compare, Webb, 1990: 216), because they are all indicators of 'who' is likely to attain power and influence in society. Everyone in the landed professions might be seen at the crudest level of economic class analysis as belonging to the professional 'service' class (Crompton and Sanderson, 1990) but they are likely to have alternative subcultural perspectives; different levels of influence, income, and seniority, and thus 'life chances' according to the particular land use profession to which they belong, and in relation to their own personal characteristics; not the least of which are age, gender, and regional location. Although I pay attention to such nuances and personal details I still take 'class' as a macro level societal concept in my conceptual model. In mainstream sociology, Weber's concept of 'status' (1964) is the nearest to my own composite perception of 'class', as he gives emphasis to cultural and social characteristics as well as economic ranking in judging a person's 'standing', in society, albeit from a primarily male-orientated perspective. The definition of 'class' and its relationship with 'gender' are irresoluble questions, but as a result of doing the research a few pointers are presented in the concluding chapter.

Fascination with the mechanisms at work within the profession that determine which sort of people reach decision making positions, and the nature of the values and assumptions which informed their professional opinions, became central pursuits in seeking to answer the research question. One of the most important factors, as to how it all worked, appeared to be the need for a person to be suitable to 'fit' into the subculture. The need for identification with the values
of the subculture would seem to block out the entrance of both people and alternative ideas that are seen as 'different'. The concept of 'closure' as discussed by Parkin (1979: 89-90), and originally developed by Weber in relation to the power of various sub-groups protecting their status (1964: 141-152, 236), is a key theme. 'Closure' (in the sense of closing ranks) refers to the processes (Parkin identifies several alternative forms) whereby groups protect their privileged position from outsiders, by, "restricting access to resources and opportunities to a limited circle of eligibles. This entails the singling out of certain social and physical attributes as the justificatory basis of exclusion" (Parkin, 1979: 44). Introducing higher educational requirements, stressing personal criteria which interlopers cannot possibly meet, or simply making people feel out of place are all ploys which effect closure. These are defined as 'exclusionary mechanisms' by Parkin, and are discussed further by Collins (1979) in respect of education and the professions.

In the case of the surveying profession, closure can be worked out on a day to day basis at the interpersonal level, with some people being made to feel awkward and 'wrong' and others being welcomed into the subculture group and encouraged to progress to decision making levels within it. It is a major proposition of this study that one should not see the 'little' nastinesses and nicenesses of everyday life as trivial, or not serious enough to be counted as real data, but rather as the very building blocks of the whole subcultural edifice. Gender is an important consideration in understanding 'who' receives what sort of treatment. Women as 'outsiders' have been particularly conscious of these mechanisms being used against them, but their
experiences have often been dismissed as being 'personal' or 'emotional' and therefore of little importance.

Gender does not exist in a vacuum, any more than does class, and both must leave their imprint on space. The study of the interrelationship between 'gender' and 'space', and the question of whether this 'new' duo can be related to existing theories concerned with the interrelationship between 'class' and 'space', has exercised the minds of many feminist geographers (Foord and Gregson, 1986; McDowell, 1986). It is hoped that this study contribute to this debate.

The Model

Early on in the research three clear levels emerged 'downwards' which form the basis of my model. For the purposes of this study these were seen and defined as:— the macro or total societal level, where the all encompassing concepts of gender, class, and space (and respectively, the related phenomena of patriarchy, capitalism, and the built environment) were considered; the meso or intermediate 'group' level, which included the surveying subculture, but also other meso level social groupings, such as the family; and thirdly the micro or individual level of personal interaction, experience, and attitudes—of both women and men. To demonstrate quite 'how' the personal views of individual surveyors (as transmitted via the intermediary of the surveying subculture) affected the profession's perceptions and policies vis à vis women and the built environment, I sought to show linkages and causal relationships 'up and down' between these levels. Likewise looking at the same problem 'sideways', I sought to understand how the 'big' societal factors of gender and class
relationships, were transmitted 'across' onto space (the built environment) via the bridge of surveying, as 'instrumentalised' through surveying education and practice, resulting in particular types of land use and development. Put at its simplest (collapsing the vertical and horizontal dimensions) the model may be expressed in a thumbnail sketch:

Gender, class and other social factors ---→ surveying subculture ---→ space.

Methodological Approach

One cannot 'prove' absolutely that 'gender' does determine the nature of development, but one can at least illustrate the situation through material from empirical observations. Nowadays it would appear to be more acceptable to aim at the "empirical illumination of theoretical concepts" as Philip Cooke (1987) comments (with some reservations) from within the realms of urban geography. Such is the nature of macro sociological theory, which is concerned with causation, that it may be untestable as Sandra Acker (1984: 36) points out with respect to the sociology of education.

The question was how to go about observing the values and attitudes that shape the world of surveying. Out in the 'real world' of practice the values of the subculture were seldom stated as everyone took them for granted, and rarely articulated them or wrote them down. However in the educational situation they had to be openly expressed to be transmitted to the next generation, and therefore they could be observed. A qualitative 'sociological' approach (Mills, 1978) based
on substantial use of ethnographic methods (Hammersley and Atkinson, 1983) combined with unstructured interviewing, and intensive investigation of the literature of the subculture (journals and reports) was adopted. Contextualising quantitative material was also sought in respect of the numbers of women surveying education and practice (Appendix III). This broadly 'ethnographic' approach tied in with the style of the research, its antecedents in the study of professional subcultures, and its links with what may be broadly described as 'the Chicago school of urban sociology'. The study of the urban situation, the investigation of communities and subcultures within it using ethnographic methods, and the development of theories of human interaction were all elements from these traditions which were of value (Bulmer, 1984).

Style

Whilst a broadly ethnographic approach to the research was used, it is not intended to present the findings as a comprehensive traditional ethnographic report. Rather ethnographic observations and insights are incorporated into the account in order to develop and highlight themes from the conceptual basis, to substantiate linkages on the model, and/or to simply illustrate the essential background narrative of the nature of the world of surveying vis à vis women; which is relatively uncharted territory from a sociological perspective. The choice of illustrations is based on a distillation of the most representative examples from the three research sources outlined above. In particular comments noted (as made by surveyors) in the course of my data gathering will be inserted in the text, both in Parts I and II, thus "as quotes", because so often they encapsulate 'exactly' the
theme under discussion. The source, status as data, and types of these quotations (shown as c, v and p in the text) is explained in Appendix III. Extensive reference is also made to written statements from professional journals and reports in respect of the historical development and contemporary characteristics of the surveying subculture. These and quotations from books will also appear in double quotation marks, but without italics. Words in single quotation marks 'thus' are either meta-concepts, adages, or words used in a particular sense such as in 'Sex at Work' (Hearn and Parkin, 1987).

The Contents

Following this introduction, Part I is devoted to conceptualisation, and the related literature review and discussion of methodology. Chapter II firstly seeks to identify the gender, class and space dimensions of the position of women in surveying, drawing material from both feminist and mainstream literature, and relating the discussion from the beginning to key ethnographic insights which influenced the direction of the literature search. Following this material which increased my understanding of the nature of surveying education and practice, vis à vis women, is discussed. Chapter III considers the historical antecedents, and contemporary setting of the study of women and the built environment; seeking to draw out material of relevance to the model, and to show the 'place' of the study of women in surveying in the wider setting of the evolution of urban literature. It also provides the context and link to the historical account (chapters V-VII) in Part II. Chapter IV constitutes the resolution chapter which gives an explanation of the conceptual model constructed as a result of the literature review (Appendix II,
Figure II). Key sensitising concepts (Hammersley and Atkinson, 1983: 179), questions, and unresolved dualisms are set out in this chapter, to bear in mind when reading Part II. Chapter IV goes on to consider how the subculture might be observed and understood, discussing the overall approach to the research. Explanation of more specific aspects of the methodology are reserved for the contextualising methodological appendix (Appendix III).

Part II comprises the more empirical component of the thesis and consists of three sections. Firstly the historical development of the profession is discussed (chapters V, VI, VII). Emphasis is put upon understanding the roots of the profession which contributed towards shaping its present day value system, especially its noticeable veneration for 'land' and its attitudes towards 'women', both of which developed prior to urbanisation in the nineteenth century (Thompson, 1963) in rural feudal society (Perrot, 1968). The development of surveying education and practice is traced through to the present day. Particular reference is made to the last forty years of the professional journal of the RICS namely the Chartered Surveyor. The purpose is to look for material on the women surveyors themselves; to look for indications of the images that surveyors have of women in society; and to consider the implications for women of the policies and professional activities described in the journals.

The second section is divided into a chapter (VIII) on the scope and nature of surveying education in relation to the position of women within it (which corresponds to the 'macro' level of the model), followed by a chapter (IX) on the ethos of surveying education (meso level) and women's experiences within this setting (micro level).
The third section (Chapters X, XI) deals with the situation out in practice, by looking firstly, at the horizontal and vertical position of women within professional practice (which relates to both the macro and meso levels); and secondly, at women's experiences of surveying practice (corresponding to the meso and micro levels). In the penultimate chapter (XII), surveyors' attitudes towards land use and development policies are discussed, in order to illustrate 'how' the values of the surveying subculture might affect 'what is built' in respect of women's needs and wants. These five chapters, in particular, contain ethnographic material and quotations from unstructured interviews, but, to a lesser degree, illustrations are incorporated into all chapters to develop conceptual themes and illustrate the nature of the world of surveying. There then follows a concluding chapter (XIII).

The Position of the Researcher in the Research

In feminist research it is almost obligatory, to "leave the researcher in" (Stanley and Wise, 1983). So, I am a town planner (a member of the RTPI) who has in the past worked in local government, and a lecturer in a Polytechnic Department of Surveying in the provinces in the South of England. I am also entitled to call myself a town planning surveyor by dint of membership of the Architects and Surveyors Institute (a non RICS surveying body) and am a member of their education and training committee. In many respects I am a person in surveying myself, although I retain at least two other sets of double consciousness, as a woman and as a town planner (Du Bois, 1983:111). I became interested in the research topic for three main reasons. As a lecturer I was fascinated by the question of whether the
observable increase in the number of women students would have an effect on the nature of surveying education and practice. Secondly, as a town planner who had become a feminist of sorts several years after qualifying, I was keen to apply my new found consciousness to the built environment. Thirdly, I simply sought to understand my own life, in relation to my experiences of education, the built environment and the landed professions. I was curious to compare my experiences with those of others in similar circumstances. So I am part of what is being studied (Lury, 1987) and cannot be separated from it as "in this process, I too am subject" (Mulford, 1986). I am both researcher and researched (Greed, 1990, a). I do not pretend to have an objective neutral approach, and, would question the value of having one (Morgan, 1981). Gardner states (1976) that, "participatory research may lead to subjective richness but reduce objective accuracy", but I am purposely aiming at subjective accuracy.

**Is this Feminist Research?**

Many men in the profession assumed it was and felt threatened. Was this because I was further drawing attention to the fact that, as many have observed, there is something especially 'male' (and a particular type of 'male' at that) about the landed professions, over and above the situation in other professions or in society as a whole? For example, Mark Dorfman (1986) comments, "Overly concerned with protecting and developing professional status, the RIBA, RTPI and RICS have become masonic strongholds forbidden to ordinary men, and women and ethnic minorities in particular". I was accused by some academic men within the world of the landed professions of being "over essentialist" in assuming that the 'problem' was 'all men'.
In conclusion, it is the researcher's motivation and personal perspective rather than simply the emphasis on gender (as many non-feminist men study 'women's problems', as a research 'subject' too), which makes this research 'feminist'. I am motivated by a desire for change, which is born out of a dissatisfaction with the status quo, which I 'judge' from the perspective of seeing gender relationships as one of the main problems, and thus I research it from that viewpoint to demonstrate the evidence to others. Likewise I seek to use what may be seen as somewhat alternative, or 'subjectivist' research methods (Ramazanoglu, 1989), which I consider a feminist perspective demands, particularly in respect of seeking to break down the division between the personal and professional which cuts right through this particular research topic. None of this precludes acknowledgment of the relevance of a wide range of 'other' social factors and forces. For example I will stress the importance of 'class'. This does not 'dilute' the feminist element of the research, nor does it mean I am to be labelled as a socialist feminist. Gender never exists floating free of everything else, but is always expressed within the cultural and social phenomena which surround us, including class and space. For example, it will be seen that within the different class 'fractions' of the land-use professions women find the effects of patriarchy are administered and experienced differently. I argue in that my research is feminist, this increases rather than decreases my receptivity to incorporating in my conceptual framework and empirical study a diverse range of factors, which help increase my understanding of the surveying subculture and the differences among the men and among the women within it. But I would rather that it were seen simply 'research' (and not as something 'other') in which women are given their rightful position, as the majority (52%) of the population.
PART I

CONCEPTUALISATION
CHAPTER II CONCEPTUAL PERSPECTIVES

Approach to Literature Review

In order to develop the theoretical basis of this study, which spanned across both the conceptual areas of gender, class, and space; and the substantive areas of surveying education and practice, I sought to apply material from a diverse range of academic realms as shown in Appendix II, Figure III. I have, from the beginning, included some key ethnographic observations and illustrative quotations linked to specific explanatory literature as often an ethnographic observation triggered off a new path of literature search, or a chance find of a book clarified the significance of some observations that were worrying me. This approach has the advantage of introducing a greater element of selectivity and enables me to focus in on 'women in surveying' from the beginning. I will seek to highlight those aspects of the literature review which directly contributed to the evolution of the conceptual dimensions of the research, as well as those which helped me develop my key themes in seeking 'to make sense' of the world of surveying.

Theoretical Perspectives on Gender, Class and Space

Applicability of feminist theory

Relatively speaking, the 'big' divisions in feminism (Jagger, 1983) proved less important for this research than the variations over a smaller range between the bourgeois and reformist feminists, within the middle ground of liberal feminism. These appeared more concerned
with 'material' issues (Delphy, 1984; Donovan, 1985:49-50) and 'practical' feminism, than with developing theories about the forces underpinning society. The concept of the bourgeois feminist became important, and first hit me when I attended a women surveyors' meeting at which the speaker (not a surveyor, but a 'women-in-management' expert) proudly declared of herself, "I am a capitalist feminist: feminism has been hijacked by the Left", this statement being met with a mixed, but not unfavourable, reaction. American business woman literature, such as work by La Rouche and Ryan (1985), was recommended to me by several women surveyors who were themselves using its principles in the furtherance of their careers. Their philosophy of life appeared to be based on the principle that one should not expect 'special' concessions from the state or your employers. "You've got to paddle your own canoe" (c, see Appendix III) was one of the most frequent phrases used when I asked the women how they coped, which reflected a self help attitude to life (and sometimes a sense of insecurity, or distrust of society). Hewlett (1988) has brought the message home that American feminism has been more about equal rights within a free market economy, than about socialist feminism, or radical political change. Such matters as the provision of maternity leave (Hewlett, 1988:298) are apparently not seen as key issues in some branches of the American movement. Many women surveyors are in a sense 'different' from other women because they work in high income areas and so can afford (just) to pay for private solutions to societal problems such as child care. The position of professional women in society (Stacey and Price, 1981:159) is a complex enigma which combines elements of both comparative privilege and personal self sacrifice.
Women surveyors are not necessarily going to be feminist because of their experience of male professions and the property world. (Ironically some men surveyors assume they are, and feel threatened by them without good cause.) Relatively speaking, women in the private sector orientated areas of the landed professions, especially surveying and to some extent architecture, are likely to be fairly 'conservative', and may appear, superficially, to have no consciousness of conflict with the world of men and business. Several non-surveying women have commented to me that women surveyors appear to them incredibly 'straight' and uncritical in their world view; and I have observed that those who exhibit these characteristics the most strongly are often the most successful. Such women are more likely to be motivated to enter male professions by the prospect of future achievement, than in righting past wrongs or changing "what is built". Some may see it as quite normal to go into business and have no argument with the world of men, declaring, "I simply don't know what all the fuss is about" (p). Curiously they might assume that their own views reflect Tory policy, as naively they seek to apply the principles of individual achievement and business success (which may be intended for businessmen) to their own lives; which is in practice a radical act.

On the other hand many women planners, some women geographers, and certain groups of women architects (such as Matrix, 1984) and housing managers are more likely to be critical or even radical in their world view. They may campaign for the provision of better childcare, especially creches, and greater state intervention on behalf of women in society, which may actually embarrass some women surveyors, several commenting "they're always going on about creches, and showing
us all up'. However there is a gradation within the more radical groups between those who are 'alternative' and even separatist in their politics, to those colloquially described as 'femocrats' (Leoff, 1987:14) who seek to use existing governmental structures to carry out change. Such women often favour a non-confrontational approach based on negotiation and appeals to the logic of developing good management practice which uses all 'manpower' resources fully. The latter group includes a few women surveyors. Clearly women in the landed professions are not a unitary group any more than the men. Such differences of view are of importance for the women in working out who are "people like us" (c). It would seem that the differences perceived by men among themselves, which contribute to the mechanisms of social closure within professional groups, are mirrored amongst the respective female groups. I was attracted to Berger and Luckman's idea of sub-universes (1972:102) to explain these fine nuances within the subcultures of the landed professions.

Many women surveyors seem quite alienated from feminism and may never have read any feminist literature (or indeed have any knowledge of the realms of academic sociology, or of the humanities in general). Yet they appear to possess a level of feminist consciousness, but are unlikely to express themselves in feminist jargon. They may not identify 'patriarchy' as the cause of their problems or even think in terms of macro sociological first causes (but undoubtedly experience their effects). They are more likely to see their problems as being personal, as their own fault, or as being caused by those who work with them. They may be put off by the false media image of feminism and dislike "the way feminists dress and carry on" (p). As women surveyors are operating in a minority situation many consider it
unwise to draw attention to themselves, by discussing their problems openly, it is a matter of "heads under parapets" (as described in SBP, 1987:4). When I talk to such women about their experiences they will often start by saying, "I'm not a feminist, but ...".

Reading widely in the realms of feminist literature helped me develop conceptual linkages for the model at the macro level, drawing from a range of perspectives. I studied the various attempts to link class to gender at a macro-sociological level offered by a socialist-feminist perspective (Saffioti, 1978; Hartman, 1981; and Mitchell, 1981). The work of radical feminists, who see gender itself as the main causal factor, but seek to study class as a sub-set of gender (Rowbotham, 1974; Millett, 1985; and Firestone, 1979), was of value in giving a different perspective. Joan Acker's continuing work on gender and stratification from a less radical perspective (e.g. 1973, 1988) was also helpful, particularly in showing the gendered nature of the processes which create class divisions. The differences between women was a key issue when dealing with professional women, who had apparently escaped much of the domestication of women in general. There are 'class' differences between women (McDowell, 1986:313; Walby, 1986), and likewise shared class loyalties between high status women and men (Connell, 1987). Obviously women surveyors are not a unitary group, although on several occasions men surveyors have let slip to me that, "women, they're all the same really".

At the meso level, much feminist literature might be seen as a sub-set of anthropological research which is concerned with the study of the male subculture by the woman as outsider (Ardener, 1978). Of particular interest is the idea that there are in fact two gender based cultures
in society itself (Hite, 1988: 132) with two separate sets of socialisation processes (Sharpe, 1976; 176; Mead, 1949). I see professional socialisation as a specialised extension of 'male' socialisation. The trick for women surveyors is to 'get it right' i.e. to know which socialisation messages apply to them, and to which particular part of their lives: as women and/or as surveyors.

At the micro level there is a vast amount of literature on the problems women encounter at the individual and interpersonal levels at home and in the professional work situation, some of which will be discussed below as part of the substantive material on education and professional socialisation. The Spenders work on gatekeeping and exclusion of women (1983, 1986) was of interest as it complemented and extended the work of Parkin (1979) on closure, from a feminist perspective, whilst demonstrating how it operated at the interpersonal level. Many would argue that men's day to day relationships with women are influenced by their sexuality. Popular books that sought to explain 'men' (Brothers, 1981; Ingham, 1984; Hite, 1988) especially those written by men (Korda, 1974; Hodson, 1984), were helpful in understanding the odd and seemingly illogical ways in which some men surveyors treated women surveyors. Metcalf and Humphries' book on the sexuality of men (1985) was of additional interest as one of the contributors was a town planner.

**Applicability of mainstream theory**

In dealing with a profession, whose role is to serve the landed interests in society, I was naturally interested in material which related property and wealth, to class and power in society at the
Since so many "malestream" theories have been developed without specific reference to women, it could not be assumed that theories developed from observations related to men would 'fit' women, and explain their experience and position in society, without some modification and reformatting. At the macro sociological level a range of marxian literature offered a broad structural explanation of society. However I felt a distinct uneasiness with Marx's personal attitudes towards women (which often seem to be held by his modern disciples too) whom he saw as a type of property (Marx, 1981: 222). Likewise at the other end of the ideological spectrum, Berger and Luckman, whom otherwise I found most helpful in their work on the construction of cultural realities at the micro sociological level, were equally guilty in dismissing "womentalk" (sic) as quite irrelevant. (1972: 60). Also at the meso level, material concerning women's representation in the professions was often presented as peripheral in traditional literature, no doubt because of the small numbers of women present (Becker, 1961: 60; Joseph, 1980: 97).

There is a large group of women who have been left out of traditional class analysis, namely office women, and more broadly the petite bourgeoisie of London who include substantial numbers of female and ethnic groups. I was attracted to works rectifying this neglect (Crompton and Jones, 1984; Crompton and Mann, 1986). Such women possess a tradition of working in offices, banks, and shops (Howe, 1978) and in some cases running their own businesses. Although they are mainly a non-professionalised group, they are of relevance as, like women surveyors, they are working within the male domain of the office situation (Delgado, 1979) with similar 'problems' (Hearn and Parkin, 1987). The boundary between 'professional woman' and 'office
lady' tends to blur somewhat in some areas of practice, especially in residential estate agency.

I combined material from traditional 'bourgeois' sociology, concerned with the details of human interaction and social groups, with material from a more radical neo-marxian tradition which was valuable in giving the broader structural perspective of the urban situation (although some would say that symbolic interactionism can also be built into a theory of society too, Blumer, 1975). Class as well as gender (to varying degrees in different contexts) proved to be a major fact in determining 'who' was considered suitable and 'the right type' within the surveying subculture. However relatively speaking for the purposes of this study, Weber was of more use than Marx. There is much discussion in Britain as to whether marxism is only a macro level theory or whether it can accommodate micro levels of human interaction. In this respect Pickvance's idea of 'nested hierarchies' of power at different levels within society was of interest as a meso level linking concept (1987:288).

At the meso level, I was attracted to the concept of the subcultural group as already mentioned in chapter I, and investigated a range of studies of different professional subcultures as indicated in the second part of this chapter. The family, especially the surveying family, also seemed to be a meso level group, although it is all a matter of definition as some would see it as being of macro-sociological importance. The work of Miller and Swanson's work The Changing American Parent, (1958) especially Chapter 2, "Changes in society, and child training in the United States", provided me with one of my most important key themes, which tied in with the concept of
the bourgeois feminist. Miller and Swanson, in their study of the upbringing of children in the Fifties in North America, make the interesting distinction between what they call entrepreneurial and bureaucratic cultures of different middle class families, that is respectively those families who are part of the business community and those who are orientated towards public service in government agencies. Both boys and girls brought up under the former influence are likely to go into the private sector and possibly have their own businesses. Although intelligent, they and their parents may feel somewhat ill at ease with the requirements of academic education. Those in the bureaucratic category are more orientated towards public and governmental service, exhibit all the traits that are rewarded by the school system, and may be more likely to conform to traditional gender roles. Miller and Swanson's work puts considerable emphasis on girls as well as boys. It is full of valuable observations, which I saw echoed in the lives of women surveyors. For example, entrepreneurial mothers may be keen to have their children cared for by childminders and nannies; and far from causing maternal deprivation, they see it as a means of developing independence amongst their children. More recent work from the realms of the sociology of education on the different fractions within the middle classes echo some of these ideas (Bernstein, 1975; Davies, 1976: 129; Delamont, 1976).

I see the micro level as the operational level where people's judgment of each other and their suitabilities determines who gains entrance and progresses within the subcultural group. The ideas of Berger (1975: 128) on person selection of those that 'fit' and of Merton (1952: 361-371) on the bureaucratic personality were of interest. Although women surveyors seem to be more entrepreneurial in
personality, as will be explained in later chapters, men surveyors can adopt bureaucratic or entrepreneurial demeanours depending on the societal and organisational situations in which they find themselves. One cannot generalise too much, or create foolproof conceptual 'types', as the situation is extremely complex. Indeed it seemed to me that bureaucratic and entrepreneurial types were flip sides of the same patriarchal coin. Katie Stewart's work (1981) on male bonding and ranking cast further light on this apparent paradox in showing that men can make alliances with other men who may hold opposite views from themselves, but derive from similar social backgrounds.

Broader spatial perspectives

I was interested in literature which made the linkage between society and space. Neo-marxian urban literature showed that the nature of the built environment might be seen as an end product of complex social and economic processes (Dunleavy, 1980; Simmie, 1981; Massey, 1984). It demonstrated the role of the different 'fractions' of the landed professions in the property development process, with specific professional groups representing different capitalistic interest groups in the development process, such as those of commercial capital and property capital (Bassett and Short, 1980:176). The relationship between social processes and the spatial end product could also be facilitated by other less 'threatening' theories such as urban systems theory (Mc Loughlin, 1969) which was remarkable for being all encompassing and yet apolitical (Simmie, 1974; Bailey, 1975). Such theories were devoid of any gender dimension, but were of value in helping to see 'the whole'. Johnston's (1983:196) commentaries on the the way in which sociological geographers from different ideological
perspectives conceptualise the relationship between space, the individual and society were of interest as background reading in helping me to clarify my own conceptual linkages.

The study of the interrelationship between gender and space, and the question of whether this 'new' duo can be related to existing theories concerned with the interrelationship between class and space - involving a major reappraisal of urban conceptualisation - has exercised the minds of feminist geographers in recent years (Foord and Gregson, 1986; Mc.Dowell, 1986), and is discussed within the context of the evolution of urban literature in the next chapter.

Space has other more mystical meanings. Cockburn in her book on male domination through technology quotes Connell, a male sociologist who has made a study of gender, as stating that to be male is to occupy space (Cockburn, 1985, a:213). The landed professions by their very nature reflect this particular trait of masculinity. This ethos directly affects the surveyors' perception of women's natural 'place', within the built environment and their role as professionals. Taking the importance of male control further (of which domination over land is but one manifestation) Marilyn French (1985) sees 'control' (power) as a primary causal factor, almost in a feminist interpretation of Weber, as both argue that there are a variety of social, cultural, and personal attributes, over and above purely economic factors, which determine who exercises this power. Nature is seen by some as the main force that has to be controlled, and women and land are seen as part of nature (Griffin, 1984). Other elements that have to be controlled on the agenda of the landed professions are; - the future (Cross et al, 1974), the working class and their housing, and the market. The role
of surveyors as controllers, managers and planners, as well as businessmen and professional gentlemen, comes out strongly in the historical account of the development of the profession.

Women have been seen as 'space' that is as property themselves both as wives (Holcombe, 1983) and as virtual chattels in rural estates, where they might be seen as mere figures in the landscape (Dresser, 1978). Not only were women property, most could not own property (Hirschon, 1984) until relatively recently. Women have entered the modern period without their relationship with real property being satisfactorily resolved within English law in respect of divorce and intestacy (Freund, 1978; Midland Bank Trust Company v. Green, 1979). This historical background still influences the way in which the landed professions view women today.

In conclusion to this section, whether investigating the macro, meso, or micro aspects of the situation it was important always to look behind apparent realities and 'facts' and consider the cultural perceptions that created the images of reality (as variously seen by researcher and researched). Goffman's idea of 'front' (1969), i.e. that occupational groups may present a false public image (front), to increase their status (and income) or protect their territory, by giving the impression that higher levels of professional expertise are required than are really the case, was helpful. 'Backstage' (or behind the counter) things might be surprisingly amateur, and high levels of expertise may not be expected at all; provided one can 'look the part' for the customers. As will be seen, surveyors may project a highly technological and mathematical image of their profession to outsiders when in fact these aspects are not central 'internally', either in
professional activity or in deciding who is 'the right type'. Likewise Sayer's work on realism (1983), and in particular his idea of 'unpacking' meanings and looking behind the facts as they appear was particularly appealing. Also it was of great value to meet people from other academic realms at conferences, who did not share the values of the surveying world, which helped to 'make the familiar strange' (Delamont, 1985).

Substantive Perspectives on Surveying Education and Practice

Some reservations

The purpose of the second half of this chapter is, firstly, to identify material from these realms which contributed to the development of the conceptual levels, and secondly to discuss substantive material from the realms of the sociology of education and the professions which provided insights and 'sensitising concepts' (Hammersley and Atkinson, 1983: 179) in seeking to understand the world of surveying. Like the urban geographers, the educational sociologists (both traditional and feminist) have difficulty dealing with class and gender together, let alone the trio of class, gender, and space. In the mainstream literature of the past, if women appear they are more likely to be seen in stereotypical supporting roles as 'the mother', rather than as pupils or students themselves. In reviewing the literature of the sociology of education one is confronted with the problem that, until relatively recently, much of the emphasis appeared to be on studies of male working class boys (Acker, 1983, a) within state schools (Willis, 1977), who typically are in conflict (Cohen, 1976) with the educational system, or are seen as 'problems'.
In contrast women and men surveying students may be seen as those that have succeeded, and are at college because they want to be, and they themselves are from relatively privileged problem free backgrounds.

Whilst the balance is nowadays being righted by the tremendous growth in gender related research, I had considerable difficulty believing some of the feminist literature that purported to describe the experience of 'all' women. Many feminist books make much of how girls are socialised in school (Deem, 1980; Thompson, 1983: 37; Stanworth, 1984) into accepting the primary importance of having children and becoming housewives, thus cutting down their career horizons. This was not what many women surveyors had experienced. Many women surveyors told me that in their schools they were constantly encouraged to have careers, indeed to such an extent that anyone that 'only' wanted children was likely to be seen as rather 'thick' by their teachers, and would be likely to be put in the non 'O' level stream studying cookery or art. Women surveyors told me they were more likely to be encouraged to be doctors, lawyers, or accountants than surveyors, because of the perceived 'roughness' of surveying (the exact opposite of the reality) (compare, Elston, 1980: 111). Sharpe comments that bricklaying is seen as unladylike (1976: 176) and by association it would seem that this attitude transfers to the landed professions in general. It is fascinating that some girls are told they cannot do surveying because it is seen as too scientific, but paradoxically a career in medicine is encouraged. In contrast, Mahoney (1985) notes that boys are likely to receive talks on surveying in which it is portrayed as an acceptable profession.
Of course, the class factor must be taken into full account, as many women surveyors went to girls' public schools or 'selective' schools, or at least were of a higher social class than average. The literature on public schools has traditionally been male orientated; so the school background of women surveyors, and other upper middle class women going into professional areas, seems to be missed out falling down a gap in the middle between studies of gender or of class. However there were some useful exceptions of studies of girls in public schools (Delamont, 1976 and Okely, 1978; and also Delamont, 1984; Atkinson, 1985: 161, Walford, 1986; and especially Delamont, 1989).

**Conceptual levels**

I will now look at material, from both the literature on education and of the professions, of relevance to my three levels of macro, micro and meso. Education has a major role to play in the development of the nature of society, and there is much literature at the macro level on its role in the reproduction of social relations and transmission of the values of the 'ruling classes' (Bernstein, 1975; Bowles and Gintis, 1976; Sarup, 1978). Material that dealt with the role of education in controlling and limiting access to the professional classes and thus maintaining the class system was of great interest. The concept of credentialisation (which derives from North America), that is the limiting of access to specialised professional enclaves by means of increasing the educational entrance requirements (Collins, 1979: 90-91) seemed, to some extent, applicable to the development of the surveying profession, as will be described in the historical account. Parkin refers to credentialisation also as an exclusionary mechanism used in the process of closure (1979: 54).
One must be cautious about American literature, as Britain is unique in having what appears to be relatively easy access to the higher professions by simply completing undergraduate courses or undertaking 'articles', without the need to attend expensive, difficult and time consuming graduate school. There are many additional ancient class and status factors involved which limit the progress of those who are "not the right type" (the most frequently heard cliché in the subculture). Credentialisation does not always seem to be a valid theory in a profession such as surveying in which everyone agreed, "it's not so much what you know as who you know that matters" (p). Many women commented to me that every time they work out and achieve what is required in terms of qualifications or experience, saying "the men move the goal posts and change the rules" (p). Credentialisation might be used to legitimate the status quo as I came across people getting qualified, after they had achieved professional status.

I was intrigued by the work of Olin Wright (1985), who convincingly links bourgeois sociological concepts deriving from traditional studies of professional groups, and credentialisation in education, with macro sociological concepts from a neo-marxian perspective whilst retaining a gender perspective of sorts. Thus he creates a workable, if somewhat confusing overview of society which he grounds in the concept of exploitation as the basis of class analysis. Whilst having reservations with his theoretical basis, the sheer sweep of his conceptual framework gave me further inspiration for the development of my theoretical model.

Other theories of education at the national level almost contradict ideas of credentialisation, for example, models of educational
expansion based on economic manpower theory and national resources which seem more applicable at times of economic growth (Blaug, 1972; Woodhall, 1972; chapter IV "The demand for educated manpower"). One must always look at what is the true outcome is for women in a period of either educational growth or manpower shortages, or sheer educational 'inflation' (Dore, 1976). If women are 'encouraged' one has to consider what role and position they are likely to hold within the professional organisation. Increased numbers in themselves mean very little: women make up half the pupils in schools but that in no sense ensures either equality in education or improved career advancement in work, i.e. the outcome of broadened entry is crucial. As Joseph noted (1980) academic achievement and qualifications are not concomitantly linked to progress within the profession (even for men): quite the opposite in some cases. Indeed this proved to be one of the major complaints of the women interviewed. However men, now, appear keen to recruit more women to keep the numbers up (e/t, 10.3.89:1, No.985 "RICS educational shake-up", Footnote '), particularly because of the 'demographic time-bomb' factor, but whether this is to the benefit of women is another matter.

The concept of professional and business elites has been important in 'bourgeois' sociological conceptualisation of power structures. I investigated theories on the role of the professions within elites (Mills, 1959; Bottomore, 1964) and the personalities they engendered (Gerth and Mills, 1954). There seemed to be less substantive, rather than theoretical material from neo-marxian writers but the work of Westergaard and Resler (1978) was of interest. A helpful summary of the state of the art of the sociology of the professions is Saks' article which classifies and clarifies the various approaches (1983).
But, the role of women in elite professional groups is unclear, they may be seen in a supporting role as wives (who must look 'right' as in Whyte, 1963:292) or as the 'same' as the men but twice as 'guilty' (Callaway, 1987). The literature is full of contradictions regards women (Silverstone and Ward, 1980). Female elite professional groups may merely be seen as quasi-professions (Etzioni, 1969), even when they do exert considerable power (if 'only' over other women or in welfare agencies). Even when women belong to an elite group in terms of family and class, they may still occupy the role of a sub-proletariat within that group, and may have very different expectations, and simply "be treated differently in the same situation" (a phrase which has been used by many a woman surveyor in conversation with myself in the context of career prospects) (Mac Donald, 1981). Indeed the privilege of an expensive education may actually hobble them for life (Okely, 1978). However other studies suggest that powerful female elites can co-exist and succeed alongside male elites from the same families (Delamont, 1976). In contrast some would argue that individual women from non-establishment, shopkeeper, marginal, and so-called 'lower class' backgrounds are likely to do better (because of less mainstream conditioning), provided their family has a business orientation of self employment, and a mentality of risk taking independence (Hertz, 1986).

The material on the meso level proved one of the most useful areas, in terms of the extensive literature on professional and educational subcultures, and on the use of ethnographic methods in the study of these subcultures. The question of whether the student subculture was positive or negative in function was of particular interest in examining the relationship between the educational and professional
subcultures in surveying. As Joseph points out, Willis (1977) identifies an anti-academic, pro-practical subculture amongst his working class boys which was assumed to be 'bad' by their teachers; but it is seen as 'good' when similar traits are exhibited by surveying students, as will be explained.

It was important to look for material that linked the home and personal life to the school or college, as many women surveyors considered their background and present family commitments as key determinants in both educational and career progress. Although there were some books that did this admirably (such as Miller and Swanson, 1958; Douglas, 1967; Connell et al, 1982) I was still left with an overall feeling that all life ceased after one left the school gates. Indeed it is a characteristic of much malestream literature to compartmentalise life and deal with 'work' situations including education in isolation. It does not deal with those matters which are of no concern to men whilst they are at work, such as childcare or domestic duties, because presumably they take it for granted that their wives are doing this for them. More negatively in traditional literature some home/work linkages were made, but they were more concerned with the level of support the wife gave to her husband's career (Pahl and Pahl, 1971); than with seeing the mother and the student, or the wife and the professional, as one and the same person as in more gender related literature (such as Rapoport and Rapoport, 1971; Finch, 1983; and Lorber 1984: Chapter VI).

At the micro level of inter-personal relationships and classroom interaction, there is now a substantial literature related to women's
experiences of school education. Whilst there is much material regards schools, there is nothing like the same amount of material regards women's experience in higher education. Do all those awful things that some of the feminists go on about regarding mixed state schools happen in Polytechnics too? (Loban, 1978; Deem, 1984; Jones, 1985; Mahoney, 1985). Higher education is also mixed, but there are many other factors to take into account especially class, selection, and motivation. There are definitely some 'problems', but they manifest themselves in a more subtle way with surveying students; and as several women commented, "there is simply no point in making a fuss". However some of the literature rang true for some of the women in surveying. As one of my sanest women ex-students said, "there was a stage when I thought I was going mad, we were always told everything is equal now, so I thought it was just me. It wasn't until I got out in practice that I met others who said exactly the same things had happened to them too".

I was interested in developing linkages between the conceptual levels, and was attracted to a range of theories which tried to explain the role of the subcultural group at the meso level as a transmitter and enforcer of social control for those in power in society above at the macro level, through the attitudes and actions of the individuals in the group. I studied the ideas and diagrams of Bourdieu (1973), Bernstein (1975), Delamont (1976), Atkinson (1985) and Olin Wright (1985), all of whom in their various ways make linkages between the macro level to the micro through the meso level, retaining a broad structural view of society without getting bogged down in subcultural detail for its own sake.
Surveying education

I will now discuss substantive material of direct relevance to the areas of surveying education and practice. As will be explained, in a sense, the whole surveying subculture is out of step with much of academia, because there is a strong practical as against academic emphasis which tends to encourage both lecturers (Stapleton and Netting, 1986) and students to decry 'theory' or learning for its own sake. Davies (1976) notes that a rather laid back attitude towards academic study is not uncommon amongst high status public school boys (although they might be working like mad on the quiet!). Some women students also subscribe to this anti-academic attitude, although for women "it's different" (a frequent phrase) as they perceive that they are judged by a double standard and expected to work twice as hard, or they will be told that they are not really interested.

I sought material to explain the actual setting of surveying education and the place of women students and lecturers in academia. I frequently got the distinct feeling that the 'normal student' and 'ideal lecturer' were male and that women were still a special category. There were exceptions such as Whitburn's study People in Polytechnics (1976) which dealt, quite unselfconsciously, with women as well as men. However much of the foundational literature on Polytechnics, where around 80% of surveying courses are located, was alarmingly gender-neutral (Robbins, 1963; DES, 1966; Robinson, 1968). Overall the role of women as academics is open to much debate (Acker, 1983, b; Cass, 1983; Acker, 1984). Women's apparent unimportance, if not invisibility, is reflected in their lack of adequate representation in official Polytechnic statistical sources (as
explained in Appendix III). Feminist material concerning the nature of the subjects taught (Culley and Portuges, 1985; Whylde, 1983) especially in the landed professions (Weisman and Birkby, 1983); how they are taught (Weiner, 1985; Bunch and Pollock, 1983); and the educational organisations and spatial settings in which education is carried out (Langland and Gove, 1981; Stanworth, 1984), were all of value in developing sensitising concepts (Hammersley and Atkinson, 1983: 179).

**Joseph's findings** At this point it would seem appropriate to introduce in more detail existing work on the subculture of surveying education. Apart from Joseph (1978; 1980; 1988: Chapter 16) there is the occasional, but rare student who has written about surveying education himself (for example, Davies, 1972; Wareing, 1986). Indeed Wareing found that only 1% of his student colleagues would want to go into surveying education, even if they were offered head of department status! (In fact only 1% of men and 2% of women surveyors are in surveying education).

I found Joseph's research invaluable in confirming many of the feelings I already had about surveying, and fully acknowledge the value of his work, his encouraging interest in this study, and thank him for his permission to reproduce his findings here. However with respect, I had some misgivings about his methodology, and of course the inevitable lack of women. There were three elements which Joseph investigates in his study;— (i) the values of the surveying profession, (ii) the question of whether students were socialised to surveying before or during the course, and (iii) the nature of the professional culture. Firstly, as a result of studying surveyors whilst in college and then following on with a short longitudinal
study, he concludes that those that reflect the 'correct' professional values, with the greatest level of 'precision' (as tested by questionnaires) are the most likely to succeed, and that this is not the same as success in examinations. Rather it is a matter of those that are most strongly reflect the values of the surveying subculture and who are likely to have family connections that are most likely to succeed. The second question was concerned with whether these values were 'confirmed' rather than 'conferred' as a result of taking the surveying course, He observed 'anticipatory socialisation of prospective students', that is Joseph sees students turning up for the course, with their values preformed.

Joseph refers to the work of Becker et al (1961) who stressed the idea of the development of a 'perspective', acquired by an ongoing interactive socialisation process, with the subculture as the end product, rather than seeing the subculture as a 'fixed' institutionalist element that students are expected to internalise. Therefore he questions Becker who sees the professional socialisation process as a major aspect of professional courses. It would certainly seem from my research also that for men, and especially for women, the most successful surveyors are those that come from families which are already part of the professional subculture, indeed I came across veritable surveying dynasties. The women who can 'handle it' the best, are those who are already cognisant of what to expect from men, i.e. they are having their suspicions 'confirmed' (Greed, 1987,c) by professional education, and they can cope when sexist images are 'conferred' upon them (in a kind of reverse or negative socialisation process, reserved for women).
Joseph uses the word 'culture' frequently, and indeed significantly states that Gerth and Mills (1954:xxii) say it is one of the spongiest words in social science. Regards the third part of his study he defines the 'culture of surveying' by identifying what surveyors see as 'good words' and 'dirty words'. As can be seen subjects such as planning and economics have the lowest status, and are seen as waffly subjects. Law, valuation, and construction and land survey are good subjects, because they are practical.

**Dirty words** academic, theoretical, planning, economics, and education.

**Good words** practical, relevant, sensible, law, land, surveying.

He identifies four key concepts, which were the basis of his questionnaire to test the correctness of the values of his students. These were: practicality, success, professionalism and freedom which he defined as follows. Surveyors are motivated by a desire for 'practicality' which means dealing with 'real' issues and a desire 'to get the job done'. He notes a suspicion of anything sociological or abstract or indeed learning for its own sake (however, many surveying students have good A levels). 'Success', is measured in the esteem of peers and in professional 'status' rather than in monetary terms. Professionalism is all tied up with a sense of duty and service to the client and also a strong sense of veneration for 'land', almost in the sense of serving it, as if it and not the human were the client. Freedom is expressed in a desire to have the independence and control over one's time, that a professional partnership or at least one's own business gives, and again relates to the freedom of "not being stuck in an office all day but getting out and about" (a phrase we both
heard endlessly). (I remind the students of this in cold weather, when we go out on site visits).

Some of this orientation has changed quite radically within the last ten years as the ethos of surveying has become much more commercial and unashamedly concerned with financial success within the enterprise culture of the Eighties (Greed, 1988). Whilst 99% of all surveying students have always got jobs, at the time of Joseph’s study over a third of students were finding jobs in public service, whereas nowadays the figure is nearer 10% and indeed last year around 80% of my college’s female estate management students found jobs in prestigious London practices. The relative status of some of the subjects has shifted. The construction and land surveying component is now seen as more down market, and a whole new range of ‘practical’ market orientated subjects, including computers, modern valuation techniques, and even management and business studies, have taken their place in importance, and ‘economics’ (reborn within the enterprise culture) is no longer a dirty word.

The big question is how do women students fare within this subculture, indeed do they possess a second subculture of their own? Some educational studies of female subcultures, related to working class situations, note that ‘conflict’ manifests itself in silence and sullenness rather than outright aggression. In the case of the girls in surveying it is very different in that they want to be there and they are, in a sense, twice as motivated as the boys. However because it is still considered odd in some circles for girls to be surveyors they may be seen as ‘deviant’ or in conflict with society. For example I have come across several examples of girls being told by
their school teachers that they were being awkward, or naughty because they wanted to become surveyors, and being virtually punished by women teachers for it (Wigfall, 1980; and compare Whyte et al, 1985). Paradoxically women surveying students are often ultra conservative in their views and so here it is a matter of interclass misunderstandings between women. However this reflects a deeper issue that may owe its existence to the power of patriarchy ineffectively administered, which is the fact that women receive a variety of conflicting messages as to how they should be socialised, as women and as surveyors. Indeed many women have told me how difficult it is to be a woman and a surveyor at the same time. However it would seem that women from entrepreneurial backgrounds are more likely to take both in their stride (Miller and Swanson, 1958).

Surveying profession

There is a range of helpful texts on the professions which briefly mention surveyors and their 'unusual' characteristics. Millerson (1964: 141) states "thus qualifying associations benefit through these late developers seeking qualification", with reference to those surveyors who took their professional examinations in their early thirties. Indeed the surveyor's measure of personal development and success is not necessarily based on academic qualifications, and in the past many successful and competent professional men took many years getting round to becoming completely qualified. Saunders and Wilson (1933: 194) describe surveyors as "an unusually wide variety of specialists". Hurd (1978: 134) remarks that Lewis and Maude's work (1953) seems dominated by a spirit of nostalgia. I had difficulty seeing my women surveyors fitting into these "tobacco laden" settings.
Material related specifically to the ideologies and ethos of the landed professions was more useful (Knox, 1988) and some of it was even written by women and/or included a gender perspective (Wigfall, 1980; Estler et al, 1985; Howe, 1980; Howe and Kaufman, 1981). The latter was of relevance for comparative purposes, in demonstrating that town planners' professional decisions were influenced by their personal views which were thus reproduced over space. Of particular interest were articles on the nature of the town planning tribe (Marcus, 1971; Walsh and Gibson, 1985; and RTPI, 1984, 1986). In contrast little attention has been given by academia to the study of the professional work of surveyors, with the exception of an article by Dickson on the management of surveying practices (1985), and of greater value for my purpose, the work of Martin Avis and Ginny Gibson (1987) on the management structures of general practice firms.

A wider perspective was gained from material on the growth in the numbers of young women choosing professional careers (Silverstone and Ward, 1980; Gerstein et al, 1988); and on the situation where they formed a minority in professional education (Kleinman, 1987; Thomas, 1990; Dewar, 1987); and in practice, such as in Law (Smart, 1984; Spencer and Podmore, 1987), medicine (Elston, 1980; Lorber, 1984), business management (Kanter, 1977) and science (Burke, 1985; Irving and Martin, 1985). Dorothy Griffith's work on women in technology was of great relevance, especially her observation that technology is even more male than science (1985: 66). A major report by women solicitors on the position of women in the legal profession (Law Society, 1988) gave practical suggestions on how it might be organised to take in to account fully women's 'other' role. Solicitors are much further ahead as 50% of new entrants are now women, but much further behind in
some respects as Law is generally considered to be one of the most patriarchal professions as regards content and practice. It is always interesting to check on material on women in other professions, to see what 'the going rate' is compared with the surveying profession. Such literature cast light on the mechanisms that were at work in filtering and channelling women horizontally and vertically within the various professional organisations. Longitudinal studies such as Woodward's (1973) that linked women's educational experience to their subsequent role in practice in male dominated areas were fascinating, but rare because of the time span required. Also, from a more negative perspective, there have been several studies of what can only be described as the hatred of women exhibited by some professions, especially medicine (Oakley, 1980; Savage, 1986). Surveyors are generally fairly chivalrous and gentlemanly towards women in comparison, but as will be shown, some women consider that this attitude can be equally negative in the long run. The Women and Housing Working Party Report (Levison and Atkins, 1987) was most illuminating, showing the lack of progress of women in spite of the apparently "girl-friendly" (Whyte et al, 1985) ethos of housing.

I consider that the micro level 'nicenesses and nastinesses' of everyday interaction between individuals provides the building blocks of the whole edifice of the surveying subcultural group. This led me into an investigation of relevant areas such as management studies, and what may broadly be described as occupational psychology. It is noticeable that there was often a resounding silence about gender in mainstream work (Hearn and Parkin, 1987: 4). However the situation is changing. For example Kanter had written in the Seventies about women and men in large organisations, and by the Eighties her work on inter-
personal relations had penetrated the mainstream market too (Kanter, 1977; 1984).

Books which comprise studies and/or advice to career women such as those by Gallese (1987), Cooper and Davidson (1982), Marshall (1984), Coote (1979), Hennig and Jardim (1978), and Williams (1977) were very helpful. Also I was very taken by what might be seen as some of the more 'pop' material on management such as CareerTrack® conferences and publications (White, 1987), which are attractive to some women surveyors in apparently giving them the key as to how to succeed (without any major change being required on the part of the men). I was fascinated by concepts such as power dressing which seemed to blame the inequalities of the world on the fact that women wore pink instead of navy blue, or that they spoke with too high pitched a voice, or shook hands wrongly, or were not assertive enough (Dickson, 1982). Other women surveyors, especially older ones, seemed mildly amused and unimpressed by such material. Some men surveyors break all the rules on personal presentation, and are still seen as the right type, so all this seemed very one-sided to me. As one woman confided in me, "behind the rugby changing room doors, that's one place we can never go, heaven knows what they get up to in there". The world (and men) had not changed that much for women in spite of them doing all the things the books told them. I concluded there must be some additional Factor X, which I never identified, which would explain it all.

Footnote: References prefaced 'c/s' (from journal of the RICS, the Chartered Surveyor Weekly), (mainly called Chartered Surveyor prior to 1985, having undergone several name changes over the last 40 years); or 'e/t' (from the Estates Times a popular weekly publication read by a wide range of property professionals) do not have a stated author and may simply be notices, obituaries, reviews etc.
CHAPTER III- WOMEN AND URBAN LITERATURE

Introduction

This chapter gives the historical background and present day context of the study. It consists of an overview of aspects of urban literature that illustrate the general milieu against which the research topic is set, and highlights elements which are of particular interest for the model. This chapter also provides the background to the historical account of the development of the surveying profession.

The Nineteenth Century

Women and their needs are seldom discussed from the viewpoint of women in the literature. If working class women are mentioned in the historical account, they are often seen as those who caused the problem of 'overpopulation' because of low morals and poor hygiene (Richardson, 1876). If middle or upper class women are mentioned, they are likely to be seen either as an angel on a pedestal; or paradoxically as neurotic and contributing to the breakdown of society (Durkheim, 1970; Richards, 1977). Women's presumed selfishness may be cited as the real cause of the evils and the eventual decline of capitalism and imperialism (Callaway, 1987), thus removing the direct blame from patriarchy, and absolving the government from doing anything to help women. Seldom does the literature reflect the fact that women have needs of their own, or that they might see men as the problem, and not vice versa.
Tönnies in defining his two models of society, the old and the new, as either *gemeinschaft* or *gesellschaft* left women in the awkward position of not quite fitting into either category (Bernard, 1981: 520). More radical structural theories of society, such as that of Marx, appear to have virtually disregarded women altogether or assumed they were included as 'workers' rather than in their own right. Marx's construction of reality was based on an arguably sexist emphasis on 'male' work and production, (or even a 'sexless' image of the worker) with little regard of women's role in production, reproduction and consumption. Consumption was seen as being of marginal importance. This has been to the detriment of women whose work and needs were seen as consisting of consumption rather than production. This issue did not begin to be addressed adequately until the neo-marxian revival of the Seventies (Saunders, 1979 and 1985: 85). Such attitudes had spatial implications, for in the more 'socialist' areas of surveying women's needs were often not seen as a suitably worthy subject for urban policy making.

**The First Wave of Feminism and Space**

The first wave of feminism had a strong spatial and material emphasis (Gilman, 1915, 1921; Banks, 1981: Boyd, 1982) which was reflected in the model communities of the time (Hayden, 1981; Pearson, 1988). 'Material feminism' existed in quite a different form from today, often tied up with utopianism, evangelical reformism with the emphasis on "salvation by bricks", cleanliness, and less positively, controlling the sinful working classes through eugenics. The roots of some of the values that shape the views of women in surveying, especially those in housing management, go back to this period. Such attitudes were
often linked to a belief in the rectitude of the gaining and use of personal wealth in the service of mankind; with the successful business person operating in a custodial role for others (Ashworth, 1968: 118). Capitalism was not seen as wrong in itself, but the expectation was that people would use their money rightly and not selfishly. It was considered socially honorable for individuals to have businesses, invest money and let out privately rented property which was "safe as houses" (Hinchcliffe, 1988) in order to ensure the well-being of their dependents, and help 'the poor'. It was considered good for disadvantaged groups to improve their lot through business, 'to pull themselves up by their bootstraps' and liberate themselves. These are all strands that are worth consideration in understanding the antecedents to the social construction of the value system of the modern woman surveyor, many of whom have commented to me, "after all, the state never provided any alternative provision for women, did they?"

Ironically, notable women from this first wave such as Octavia Hill (Hill, 1956) are often disparagingly seen by modern men surveyors, as "only a housing manager" (c). In fact, her ideas were influential over a wide range of land management issues, including rural planning, and regional economic policy (although she is only begrudgingly given the credit, Cherry, 1981: 53). It is significant that most of the textbooks (which I have to use in teaching town planning) never mention any of the female figures except for Octavia who has become the token woman, thus a woman surveyor is deprived of her heritage and of useful role models. Indeed some women surveyors and planners I have met who qualified in the Seventies genuinely believed that theirs was the first generation of urban feminists.
Many women, including myself, for many years knew little of the antecedents of modern urban spatial feminism. Past literature and key figures had been rendered invisible (Hayden, 1981: 336). Nowadays spatial feminists who have regained this consciousness often find themselves out on a limb in relation to other feminists. They may be seen as being too material and suffering from a form of spatial fetishism, because of what is regarded as an overconcern with the practicalities of the built environment. "You're only a sewers and drains feminist" is a criticism which one often hears (sometimes aimed at me by 'academic' feminists!), which incidentally was originally a phrase used by men against reformist women at the turn of the century (Greed, 1987, a). To be 'intellectual' or politically serious, it appears one must be concerned with abstractions rather than practicalities. In contrast, in the landed professions the emphasis is more likely to be on "getting things done" (c) from a sense of public duty and urgency, with very little thought being given to the theoretical basis of decisions.

Traditional Urban Sociology and Women

Although the last twenty years has been dominated by neo-marxian theory, as far as I know marxists in Britain had little to say about the urban spatial situation, except from an economic viewpoint, for nearly a hundred years until the Sixties. In the interim a long tradition of bourgeois urban sociology developed. Some of the early studies were by women (Bell, 1911), but as urban sociology became more formalised women sank to being the assistants of men (Moore, 1977)
with some notable exceptions (Stacey, 1960). Sociological theories of the urban situation both on a city wide and local neighbourhood basis came to the fore in Chicago in the Twenties and Thirties and have been influential right up to the present day; albeit often having more influence in Britain on urban geography than urban sociology. It is notable that some of the Chicago researchers did allow for the possibility of women being workers as well as mothers, as reflected in the urban questionnaires used by Zorbaugh (Bulmer, 1984: 103). Also North American ethnographic studies of urban communities were of interest (such as Whyte, 1981) from a methodological and stylistic viewpoint.

In Britain there had been a steady trickle of studies on working class communities and 'problem people'. Women appear in these studies in a variety of dangerously simplistic stereotypes, which are based on observing them as mono-dimensional denizens of the residential area, rather than as people with jobs, interests, and aspirations beyond its boundaries (for example Morris, 1958). In the Fifties urban ethnography was given a new lease of life in studying the effects of planning on people 'before and after' slum clearance and rehousing (Young and Willmott, 1957) and those who had moved to the new and expanded towns (Stacey, 1960). There is no doubt that Young and Willmott gave some emphasis to women in their study, but their fondness on seeing them in the role of 'Mum', and almost as wallpaper to the main action of life, is open to question. Their later work on the symmetrical family (1978) is seen as nothing more than wishful thinking by many urban feminists. The descriptive style of some of these community studies influenced the way I wrote about my community of surveyors.
There were also studies of deviants within the 'criminal areas' of cities, in the genre of the Chicago school in Britain (Morris, 1958). It is noticeable that such studies are extremely moralistic towards young women, and tend to blame much of the male criminal activity on the mother's influence and perceived lack of responsibility. The blame is on the female subjects rather than their male rulers. In contrast there were several North American studies of the suburbs in which the women were presented as bastions of respectability, but a bit vacuous, thus reinforcing the popular male image of the 'stupid housewife' (Gans, 1967; compare with Friedan, 1982, originally written 1963).

Retrospect

I became concerned with town planning in the first place as an inner city resident from the area in South London identified above (Morris, 1958) coming to live there a few years after the book was published (but I did not come across the book until 15 years later, Greed, 1987, b: 10). Having seen the world from "the other way up", I can appreciate the importance of state intervention in ameliorating the urban situation, but am wary of the tyranny of the 'top down' approach to town planning. I can understand the petit bourgeois tradition of seeking freedom and change through the private sector where it appears people can be in charge of their own life, business and destiny; rather than through a socialism in which others make decisions for them without necessarily understanding what their lives are like. Class, and space as well as gender are key issues to me both theoretically and at a personal level, affecting my perception of the surveying subculture and the women and men within it.
The Development of a More Radical Urban Sociology and Women

A new wave of macro level theories of society and urban space was emerging by the Sixties, in particular systems theory (McLoughlin, 1969). It gives a joint macro sociological and spatial perspective, being of particular value in making horizontal linkages between social processes and the spatial end-product. The key phrases adapted for the purposes of this research of 'spatial' and 'aspatial' date from this time (Foley, 1964).

'Tension' was developing in several cities. This led to a series of urban sociological studies incorporating race issues, as in the work of Rex and Moore (1967) with which, significantly, they tried to integrate a class perspective on the housing situation, but did not incorporate a gender dimension too. Identifying the inner city as a place of danger and conflict (Lawless, 1981) may have had the additional effect of scaring off some women and asserting male dominance over space, as will be discussed further in Part II. In fact over 52% of inner urban dwellers are women. Studies questioning the actions of the urban professionals themselves became more acceptable, starting with the work of Pahl (1977) which showed that all was not fair or value free, indeed urban managerialism (including town planning and estate management by surveyors) was seen as a form of social control. More radical studies of urban processes, fractions, and professionals emerged (Harvey, 1975; Bailey, 1975; Dunleavy, 1980; Simmie, 1981; Goldsmith, 1980; and as mentioned Bassett and Short, 1980). Incidentally Bailey (1975: 137) quoted Harvey (1973) approvingly in seeing ethnography as merely a form of "emotional tourism". In all this I presume the urban professionals under discussion were male, as
women are seldom mentioned (Dunleavy, 1980: 115). Many of these studies are of value in conceptually linking land, class, and the nature of professional practice although generally they are weak on gender even when written by women (Kirk, 1980).

The move towards a more conflict related view of society was influenced by European urban neo-marxian sociology (Pickvance, 1977; Castells, 1977) which extended beyond the realms of sociology and affected geography and town planning. As a result some geographers overreacted and put so much emphasis on the political and economic forces behind the process of urban development that the traditional emphasis on space was lost. The emphasis on impersonal macro sociological forces, combined with an occasional reference to an abstract 'working class' often meant that there was no place for real people as individuals and groups within the new geography. Castells' impersonal view of the city as nothing more than a unit of labour power was alarming (1977) but with time he revised his views, and stressed the human dimensions of consumption more (as discussed by Saunders, 1985). In midst of all these debates the view of women was somewhat ambiguous, as they were neither 'land' or 'society'. Sometimes one feels they are 'land' as the suburban housewife seems to be plumbed into the house along with the washing machine in much neo-marxian theory on housing classes (as in Bassett and Short, 1980).

It seemed bourgeois and trivial to raise community issues in this setting, let alone to mention 'women', with the prevailing emphasis being on structure rather than individual people, combined with a certain animosity from the male left towards feminism. However several men were seeking ways out of the cul-de-sac of structuralism that
would enable both space and people to be put back in without devaluing the theoretical advances that had been made. Giddens' theories on structuration (1984) and Pickvance's idea of nested hierarchies of power as mentioned in chapter II, both provided for linkages between the macro and the micro. Later neo-marxism put a greater emphasis on consumption (albeit defined in 'male' terms) (Saunders, 1985: 85). This opened the way for women to redirect attention to the urban political significance of the domestic realm and the residential area as a valid place for serious class struggle, and to redefine production and consumption and their interrelationship from a feminist perspective. Also there was already some literature (Stretton, 1976) on the relationship between the consumption in the residential market and capitalism from a more liberal perspective.

The Second Wave of Feminism and Space

One could argue that men were only catching up with the women as Cockburn (1977) had already produced a key book on the importance of community politics. However some (men) would suggest that the second wave of feminism had grown as an offshoot from the theories of the Sixties and early Seventies, urban feminist theory being seen as a sub-set of post-marxian theory. This may have an element of truth in it, as regards women academic geographers, but the majority of surveyors had never even heard of neo-marxism, and did not follow theory. Many women surveyors and planners were simply startled by the reality of their experiences of being 'first and few' in the male landed professions, and quietly reflected on it all, and began to work it out for themselves in isolation (as I did). Some were influenced by the writings and personalities of North American women
urban feminists who had come to Britain and who seemed miles ahead (in my case Madge Dresser whose work [e.g. 1978] I did not fully appreciate until years later). Also many ordinary women had been involved in various community groups fighting the planners; some being concerned with design issues related to their traditional role as carers of children (Leach, 1979).

North American women architects and sociologists had not entirely lost the heritage of first wave urban feminism (Jacobs, 1964; and Mead, 1968). Elaine Morgan's book (1974) may be seen as one of the first attempts in Britain to look at urban issues from the 'new' feminist perspective. By the early Eighties a series of valuable encyclopaedic books from North America dealing with a wide range of urban feminist issues past and present were appearing (Torre, 1977; Hayden, 1981; Wekerle, 1980; Keller, 1981; Stimpson, 1981), all of which were of interest for this research in studying "what is built". It would appear that many British urban feminists are still discovering this literature, as these books are not well publicised in the professional press, and few women surveyors appear to know of them.

There was also a development of academic spatial feminism internationally, undertaken mainly by women geographers such as Hadjimichalis (1983), the ideas and current literature of British feminist geography being encapsulated in the work of the Women and Geography study group (WGSG, 1984). A still flourishing Canadian periodical entitled "Women and Environments" (published by the Centre for Urban and Community Studies, Toronto) was established in the Seventies. Mainstream feminist sociological writing was taking urban spatial issues more seriously, for example Campbell's study of
working class girls (1985) made the link strongly between class, location and gender. Meanwhile women planners and architects were developing policies, and seeking actively to change the urban situation, rather than 'just' studying it, or developing theories about it. Indeed those who are achieving the most seldom write their ideas down as they simply don't have the time, or because they see themselves as 'practical' rather than 'academic'.

More broadly, it would seem that ethnicity (and disability to some extent) was stronger initially than gender as a factor which legitimated the need for the development of 'special' urban policies for groups who are 'different'. The issue of 'Equal Opportunities' was gaining prominence amongst local authorities, affecting their role as employers and policy makers, especially in London. In spite of this apparent progress black women urban feminists have pointed out that they are often squeezed out of the debate, reminding us at conferences that many white people still assume that (as the saying goes) 'all black people are men, and all women are white' (SBP, 1987). As will be seen in Part II, surveyors have difficulty seeing a person in more than one 'category' at once.

By the early Eighties, the women and planning movement was emerging more visibly (one of the first articles to appear in the mainstream planning press being, "Planning: the need to plan for women", Planning, 479:8-9, 30th July, 1982) but they were few and far between (e.g. Greed, 1984, a). (Bear this in mind for the comparisons with the situation in surveying in Part II). This trend was greeted with complete misunderstanding by many men planners and surveyors, who made comments like, "women? that's not a land use issue". Beverley Taylor,
a town planner, was one of the key figures in this rebirth. She was the first person to suggest that I should look at the situation of women surveyors, resulting in an article in the first issue of WEB Quarterly, an urban feminist newsletter, which she was instrumental in founding (Greed, 1984, b).

Meanwhile in the public sector, the GLC women’s committee was producing a series of Women and Planning reports including the most comprehensive, "Changing Places" (GLC, 1986). Women’s committees were beginning to have a major influence in several cities in getting things done (Taylor, 1988). 'Women and the Built Environment' became a fashionable topic and several of main journals devoted a 'special' issue to the topic (IJURR, 1978; Built Environment, 1984; Ekistics, 1985; TCPA, 1987). This might be seen as a means of answering criticisms that women were neglected, because now journal editors could always say, "Oh, we did women a couple of months ago".

By the late Eighties a series of conferences were put on by professional bodies such as the RTPI. Having been to most of these conferences, I must say that one is lucky to see more than one or two men, and one is likely to see the same core group of women each time. Most of the men in the landed professions still appear scarcely interested (and suprisingly many younger women aren't either; a point which will be pursued in Part II). To rectify this the various professional bodies have been pressurised to 'allow' the establishment of working parties and groups, for example those dealing with 'Women and', Planning, Housing, and Architecture respectively, (not Surveying until late 1990, note) to advise the main body on issues related to women (aren't all matters related to women?). All these various
initiatives cover many aspects of professional practice and policy at both city wide policy level, and detailed design level (Matrix, 1984).

Conclusion

Little policy change has been implemented as a result of all this, but many women retain their optimism. The majority of development decisions are still made by men in the private sector, and initiatives which come from women in the public sector or academia, are seen as of little importance. It is sobering to remember that the average surveyor has only the vaguest idea of what feminism is. I set my students a cunningly worded town planning essay to find out what they thought of women and their needs. Surprisingly many mentioned 'feminism' but both male and female students seemed to assume that it was a thing of the distant past (the 1960's), and many included in their introduction phrases to the effect that "everyone is equal now". In fact many women students' awakening to 'feminism' (even of the bourgeois variety) does not appear to happen until they go out into practice. However recently there has been a noticable volte face amongst the men regarding attitudes towards recruitment of women into town planning and surveying, because of the current 'manpower' shortage and the threat of the much publicised demographic timebomb. This should not be automatically equated with any desire to alter the nature of the landed professions or their policies to reflect more realistically the needs of women.
CHAPTER IV - RESOLUTION AND OBSERVATION

Explanation

The purpose of the first part of this chapter is to present the model (Figure II, Pull-out Appendix, II). My model should not be seen as a mechanistic explanation, that necessarily 'works' in a linear sense with an input and output; although certain bits of it do actually 'work' in a clearly observable mechanical way. Rather it is an aid to increasing 'understanding' (verstehen) (Weber, 1947). It enabled me to 'peg' (classify) concepts and attitudes in relation to each other, and helped retain an ordered perspective on the observation and processing of material, in what was often a busy and pressurised situation, as I went about my daily round, within the territory of the subculture. In explaining the model, I will not repeat all the references already given, but will draw out those significant concepts and linkages underpinning the model. This material should be seen as a distillation of my literature review, providing an essential point of resolution before plunging into Part II. Ideally the reader should refer to the model and make her own connections as she reads Part II.

In the second part, I will discuss what it was like 'doing' the research which consisted of ethnographic observation of the subculture, and interviews with women surveyors, which enabled me to bridge the gap between the professional and the personal (Greed, 1990, a). Methodological details are put in Appendix III. This second section commences with lists of various questions, sensitising concepts and unresolved dualisms, derived from the literature review and conceptualisation process, which were in my mind when doing the
empirical part of the research. These should be seen as subsidiary tools (and scaffolding) to answering the main research question.

Conceptual Resolution

The framework and the glue

As explained briefly in chapter I, I am seeking to demonstrate how the influence of 'class' and 'gender' relations are transmitted across horizontally onto 'space' through the intermediary of the surveying subculture (represented by the two instrumental columns of surveying education and practice in Figure II). The diagram also seeks to show the linkages upwards and downwards, vertically between the micro personal level, via the meso subcultural level, to the macro societal level. Whilst the above horizontal and vertical dimensions provide the basic framework, certain 'total' concepts help 'glue' or weave the different aspects of the model together. For example, the theories of a deterministic nature namely, those of capitalism, patriarchy, and particularly those concerned with power and control (Weber, 1964; French, 1985) whilst located at the macro level on the model, may also be seen as 'forces' governing the levels below them, providing a total view of society 'vertically', 'running through the whole model like the lettering in a stick of rock'.

My approach was also informed by theories that could accommodate 'everything' and make further linkages between the diverse realms 'sideways' across the diagram, such as urban systems theory which was most helpful in conceptualising land use and development i.e. 'space' as the end product of aspatial processes within society
Likewise I bore in mind theories that demonstrated linkages between different levels 'up and down' and gave a vertical dimension such as structuration (Giddens, 1984). Theories that could link the small scale events of everyday life up to the macro level were important to provide additional strengthening to the structure (Blumer, 1965). I had another dimension (not shown on the diagram) of feeling, intuition, and awareness. Concepts which helped me to look at and behind apparent realities from a more cynical or phenomenological viewpoint such as Berger and Luckman's (1972) work on the construction of social realities and Goffman's idea of 'front' (1969) were valuable. X Ray vision was essential.

**Macro levels and linkages**

The purpose of this section to explain the nature of the macro level concepts, and to identify some of the linkages in order to demonstrate how class and gender relations are transmitted across one to space. Since, the concepts may also be seen as vertical governing influences that run right through the model I have illustrated, in relation to 'space', how the different levels and columns might interconnect, to demonstrate the nub of how the model works.

**Gender** Macro-sociological visions of patriarchy, although helpful in reinforcing my gut feelings about the nature of society, seemed somewhat overgeneralised in their assumptions. In practice 'gender' seemed to work better at the meso level as a subcultural factor within surveying, and even then it criss-crossed with so many other factors it was not always prominent as the main issue. When looking into a particular situation in detail through ethnography, there often
seemed to be a complicated mixture of costs and benefits at work between women and women, men and men, and between women and men; some related to class and some to gender. Whether the women were consciously colluding with the men, or whether they were simply being obedient and well conditioned to accepting patriarchal society and (as some 'aware' women surveyors consciously expressed it) "going along with the flow, and not rocking the boat" (p) was not always clear, but either way the effect was the same.

I have not shown all the possible linkages on the model to avoid the confusion of arrows going everywhere. There were also what I called 'knots' (or conflict points, or 'contradictions') in the model, when people did the opposite of what one would have expected, or incompatible elements met head on. Many of the unresolved dualisms listed at the end of this chapter were developed as a result of such observations. Quite how women surveyors could be independent and 'unusual' in some parts of their lives in being surveyors in the first place, and then accept without question urban policies emanating from surveying which were clearly against their best interests as women, was incomprehensible. I can only conclude that their minds were so compartmentalised, and their existence so fragmented as a result of constantly experiencing two sets of socialisation, that they could actually hold two contradictory views at once. Also people's actions did not always have the results they intended. Sometimes it seemed that the end results that suited the requirements of the surveying subculture were achieved through the activities of individuals who might have socialist or feminist aims in mind, and who believed themselves to be acting quite independently; as will be illustrated in Part II.
Overall, attempts to link gender and space were successful in a negative sense as it was impossible to avoid the fact that most land use is planned for men (such as Stimpson, 1981) and the end product reflects gender relations in society. Also for centuries both women and land were seen as 'property' (Hirshon, 1984) a factor which in itself influences surveyors' perception of women. Linkages could be readily made between class and gender from a variety of feminist perspectives as explained in Chapter II, but few were so foolhardy as to 'do' space, class and gender at once.

Class I sought to relate my three macro level concepts specifically to the world of surveying. For example, under 'class' at the macro level I put in the 'landed classes' and 'feudalism'. In the light of my historical research on the origins of the profession as presented in Part II, I would go as far as to say that relatively speaking feudalism was (and to some extent still is) as important a concept as capitalism and patriarchy for this research. As explained in chapter II, a range of theories especially from a neo-marxian perspective were valuable in demonstrating how class relations were transmitted onto space, showing linkages across between capitalism and land (and thus between 'class' and 'space' on the model), as mediated through the property market (for example Simmie, 1981). Connections could also be made downwards to the meso level by identifying 'fractions' within the professional classes that were concerned with different aspects of the circulation of landed capital (Bassett and Short, 1980). The sociology of education also provided plenty of inspiration on the question of 'fractions' (Bernstein, 1975; Davies, 1976: 192). Seeing surveyors as but one professional fraction amongst several involved in the process
of property development (Ambrose, 1986: 68-698) brought in wider connections with the world outside surveying (Figure I, Appendix II).

**Space** I will now use my third macro level concept 'space' to illustrate the nature of the vertical connections between the levels and horizontal linkages across the columns on the model, because it did seem to be such a central concept, the hub around which many other factors revolved. It is arguably an inanimate object that does not 'do' anything itself, and may be seen as both first cause (in geographical determinism) or end product as in "what is built" in the guise of development. However, its role as a cultural concept seemed more important than its physical existence for the purposes of this research; as for many surveyors 'Land' (Joseph, 1980) is the basis of their total world view. I pictured arrows going both ways, 'space' shaping the surveyors' world view, and the surveyors' world view shaping space - I was observing the reproduction of (cultural) space over (physical) space. As will be seen, these processes are strongly gendered and 'classed' (Acker, 1988).

For example, the surveyors perception of 'his' fellow beings, and the nature of the class system (in so far as it interests 'him'), is more likely to be related to what a person owns (especially land and property) than what he does. This expresses itself in the conservative and deferential attitude many surveyors hold towards the landed classes (shown in italics on the model as a 'class' issue but linking across in its effect to 'space'). This would appear to enforce the maintenance of the values of the ruling classes and thus of capitalism via the workings of the subculture. Kirk (1980) has observed that the landed professions act as major transmitters of capitalism, and I
have observed that surveyors tend to support strongly the attitudes of their masters, because they are their values too! This is carried over (horizontally) into the surveying education column, being reflected in a practical i.e. non-subversive or at least non-questioning approach to study. Paradoxically, surveyors believe in the existence of meritocracy, although as stated earlier success in surveying is not based on meritocracy. Several women-surveyors (in respect of gender) and men outsiders (in respect of class) have commented, "they have a blind spot, they think they are fair" (p).

This deferential 'class' linkage which is so vital in linking 'space' and 'class' is complex as will be seen in Part II (especially in the historical chapters). However surveyors may, given the chance, prefer not to be deferential but choose to operate as urban managers and town planners in their own right without the inconvenience of having to please their landed clients. Sometimes they may choose to entertain socialist ideas. They have always kept a small stock of more left wing members in their number, such as some housing managers and some town planners. Should the need arise, the most suitable type of surveyor can be wheeled out, in order to retain control of land under either Labour and Conservative governments. Also the independence of the professional man, and the radical stance of the professional woman could be at odds with the apparent need for deference and 'dullness' (a typical 'contradiction' in marxist terms). Willingness to take risks and not conform may also be seen as hallmarks of entrepreneurial people who are amongst the main supporters of capitalism.

At the interface between the meso and the micro level, space is shaped by the individual surveyor's world view as reinforced within the
subculture. For example an enthusiasm for Sport which underpins the very foundations of the surveying world inevitably affects "what is built" (at the macro level), because provision of recreational and leisure facilities is looked upon as essential, and may be provided at the expense of other more women orientated uses. Surveyors tend to project many other aspects of their life style and subculture (which they appear to see as perfectly normal and average) on to space. If surveyors genuinely opine that (like them) "everyone has a car nowadays" they might naturally use this as the basis of out of town retail development policy, without realising that fewer than 20% of women have the use of a motor car in the daytime, and less than 35% hold driving licences (Pickup, 1984).

Meso level and linkages

I will now look in more detail at the next level 'down'. I will not subdivide this or the following sections into class, gender and space, but will structure the discussion around highlighting various inter-connections, to show how the model works. In addition to the linkages described above, I was cognisant of the opportunities that various other theories gave to make further connections and provide more 'glue' for the model. There are linkages between space and society. From the realms of the sociology of education, as stated, I was influenced by the diagrams and ideas of Bourdieu (1973), Bernstein (1975) and Olin Wright (1985) who all attempt to create a total model of society, starting at the meso sociological level and working their way 'up' to society and 'down' to individuals' experiences. Likewise from a geographical Johnston (1983: 196) showed the possible linkages between space and society.
The most valuable concept at the meso level was that of the subculture, firstly in respect of the world of surveyors themselves, and also regards women's 'realm' as a possible source of a second and possibly conflicting subculture (a major 'knot' or pressure point in the model). Linkages between different elements within the diagram may not necessarily imply agreement or mutual support but also potential conflict or unresolved dualisms both at a conceptual level, and in terms of the women's lives themselves. To some extent this dualism was resolved in the phenomenon of the bourgeois feminist (Hertz, 1986) who was acceptable to the profession and had her own feminine subculture.

There were several linkages to be made between the bourgeois feminist and the characteristics and roles of women in families from the entrepreneurial middle classes (Miller and Swanson, 1958; Delamont, 1976 and 1989). Such studies connect the world of work and home in people's lives, an issue of great importance in the daily lives of women surveyors. Family perspectives had a direct bearing on women's opportunities for entrance and participation in work in the first place. I was tempted to raise 'the family' to a macro level concept as that is how it seemed to many women, although it was also a meso level social grouping and the vortex of micro level interpersonal relationships. Conceptual linkages may also be made up to the macro level. Class, for example, is a major component of the social construction of work and home, both of which have a role to play in the maintenance of patriarchy and capitalism and thus the reproduction (literally) of gender and class. Paradoxically, a woman coming from an entrepreneurial background might find it easier to enter the profession if her father was right behind her, but might be subject to
the processes of exclusion and closure at the hands of other men like her father within the profession. Men often seemed to adopt exactly opposite attitudes in dealing with their own wives and daughters than with those of others. Thus at the meso level there may be a conflict of interest between the objectives of the subculture and the family. Clearly men surveyors did not hold 'the same views' in different settings.

I bore in mind the question of whether there were several sub-subcultures or sub-universes (Berger and Luckman, 1972) horizontally side by side at the meso level. It is readily observable that quantity surveyors, housing managers and commercial surveyors have different world views. I had no desire to oversimplify these differences for the sake of conceptual tidiness. These matters often come down to a somewhat diffuse feeling of nuances of differences, but they may still have hard macro level implications. For example, women may be encouraged to go into Housing to clear them off the pitch of commercial development. I wanted to show the range of these 'little' divisions, like the teeth of a comb at the meso level, but it would be too messy, so the reader should imagine them. Vertically, but still within the meso level, there are different status groups amongst surveyors (Weber, 1964: 426) and as will be seen, there is an identifiable London based elite group above all others. Many women have commented to me that women are generally of a higher social class than their male counterparts in the surveying profession, making a little hump in the diagram, relative to men at the meso level.

The concept of closure (Parkin, 1979) was of particular value. One could virtually watch this process occurring, and readily obtain
accounts from women of when they felt they had experienced the effects of exclusionary mechanisms; I could almost draw little 'barriers' or closed doors on the diagram to indicate where this happened at the interface between the micro and the meso levels. It would seem that one has to be 'the right type' and this can be achieved through a variety of mixtures of class, gender and subcultural factors, with the proviso that women said they had to be "twice as good and work twice as hard" (p). But that does not mean that once in all will achieve to the same level of promotion, as women may be recruited for different reasons from men. Berger's concept of person selection (1975) and Merton's discussion (1952) of the personality type that fits into a particular structure were of interest.

Material such as Spencer and Podmore (1987) on women in the professions was helpful in understanding the experiences of women surveyors which they recounted to me in respect of their vertical and horizontal progress (or lack of it) within the subculture. I took their personal experiences very seriously in fine tuning the model. Many women said that they were simply not seen, or taken into consideration for promotion, thus reiterating the findings of much feminist work on the invisibility of women. Spender's work on gatekeeping and the exclusion of women (1982, 1983) extended and complemented the work of Parkin on closure (1979), from a feminist perspective. This exclusion affects the bank of alternative ideas that the profession can draw upon, and so many of them continue in all innocence believing that their minority views of 'the reasonable man' are actually representative of society as a whole. Many women felt strongly that they were not listened to in meetings so that it was extremely difficult to put over any alternative views on the behalf of
women. All this has implications for the maintenance of social relations within society and their reproduction over space (one could draw another line joining these factors up with space on the diagram).

The micro level

This is the operational level of maintaining all the above where, for example, closure to those who are not the right type may be 'activated' by such 'trivial' matters as making someone feel awkward and embarrassed so that they feel that they are not really meant to be there, whether it be a college class or a professional meeting. As will be pursued in Part II, it is less likely that women will experience crude sexism or overt discrimination, after all surveyors are gentlemen. Rather they may find that their colleagues simply do not make it easy for them, or share essential information with them, or welcome them into the social support groups, especially sport based clubs, that underpin the professional life of the subculture.

To repeat, personal attitudes and life experiences do affect people's approach to policy making and this does affect ultimately what is built, and this can mean either group subcultural attitudes, or in the case of the rich or powerful, actual individual men's preferences for certain types of development. However even quite ordinary men surveyors have the advantage in getting their views heard and taken seriously. Before they open their mouths their contribution is likely to be seen as valuable, women stating, "they are always given the benefit of the doubt", and indeed they are more likely to reach senior decision making levels, and that more rapidly than women. Therefore both personal attitudes (Howe and Kaufman, 1981) and the gender
composition of professional structures determine "what is built". In the final analysis, as will be pursued in Part II, it may all be because, "Simon's a good chap", or, "Rupert was very impressed by that scheme he saw last week" (p).

Women are affected at the micro level by the inbuilt assumption that the normal individual is male, as shown on the diagram under all the columns, variously as the client, the student, the developer, and the 'map chap'. It would seem that many books, journals, lectures and policies are all presented on the assumption that a predominantly male audience is being addressed.

Regarding space at the micro level, surveyors are renowned for their narrow vision of looking at a particular site in isolation rather than at the wider spatial context of a development, although their actions may have macro-spatial implications, and their world view is meant to be based on a macro level view of 'Land'. Their narrow vision, expressed in the desire to get the best financial return for the site, can in itself preclude any consideration of wider social considerations, let alone of women's issues. In defence of surveyors: this is their job. Much of the work of the average surveyor is concerned with individual buildings, and sites, from a financial, legal and structural viewpoint. However development surveyors act as the professional advisors of private investors and developers, and have a major influence on strategic town planning issues of city wide importance. Even if they plead that their decisions are based purely on financial considerations, as many surveyors have pointed out to me, there are more ways than one of making the same return on the site. Women surveyors have pointed out that the men might actually be doing
their clients out of a better return on their investment by not acknowledging, or misrepresenting both the social needs and the market spending power of women. In such cases, it would seem that patriarchy works above and against capitalism (Walby, 1986). Although space is a neutral inanimate element, it is suprising how often out in day to day professional practice it is made male, and used as the excuse for women and their needs being ignored or blocked, this being presented as "the requirements of the site dictate..." or "the land market requires ..." (p) almost as if the men have convinced themselves that the land itself and not patriarchy, capitalism or themselves, is to blame and in control.

Observation

How to observe all this

People do not carry around in their pockets a blue print of Capitalism or Patriarchy to which they refer in their daily lives for guidance (Greed, 1987, d). Rather they go about their business doing 'what comes naturally' and what makes sense to them. What is amazing is that so often they seem to be unwittingly fulfilling the requirements of various theories in the process as agents/actors (Giddens, 1984). As a researcher in the heat of the moment, I find it hard to carry in my head an encyclopaedia of all the theories that might be relevant in a particular situation. Real life is not simple and one cannot observe a surveyor's attitudes and separate out the various strands as to being caused by Patriarchy or Capitalism or whatever into neat theoretical compartments, nor can one always 'see' inequality as one may have to wait for certain occurrences to show their true fruit in
the course of time (many women only begin to see what is really happening in their careers and lives in their thirties). However one can build up a generalised picture of sets of attitudes held by certain types of surveyors towards class and/or gender factors (and it's surprising how often the two go together in the same observation). A veneration for land amongst certain types of surveyors is often accompanied by a deference for the landed classes; a rather traditional conservative political viewpoint; a love of getting out and about either on site or in the country; a strong group identity and love of team sport; but a rather limited understanding of 'social' as against 'real' professional and business matters; and a rather gauche or over gallante attitude to women.

'Things to bear in mind'

I will now list some of the key sensitising concepts, questions and unresolved dualisms which I bore in mind whilst doing the empirical part of the study to help me make sense of it all. These developed from the literature review, contributed to the development of the model, and were further refined as a result of doing ethnography. No special significance should be given to the order.

Sensitising concepts

The importance of the bourgeois feminist
The entrepreneurial as against the bureaucratic family
The importance of class as well as gender
The differences between women
Collusion between women and men
The concept of the surveying subculture

Space and maleness

The importance of Land

The importance of property 'management'

The importance of sport

The peoplelessness of much surveying

The importance of the market, leaving little space for social factors

The anti-academic, pro-practical emphasis

The male emphasis and absence of women in much traditional urban literature and related professional practice

The role of other actors in the development process, the fraternity

The differences in attitude and motivations between surveyors and planners

The shifting nature of surveying and its boundaries

The 'script' for women in the professions. Separation, fragmentation, denial, impersonality, invisibility of women as a 'special' group

The lack of interest and 'ignorance' of the women regards social/feminist issues.

Questions

N.B. these are questions I framed to help answer the research question. They were not questions to ask my research 'subjects'.

Why do women go into surveying?

What are the women's experiences of education?

Do the things which happen in mixed schools happen to women in colleges?

Why are some women 'sensitised' and become feminists and not others?

How are women affected by professional socialisation?
How do women find it out in practice?
What do the men think of them?
Are they taken seriously?
Do men envisage women becoming partners?
What are the differences between women in the landed professions?
Are housing managers really surveyors and what role do they play?
Are women's actions/attitudes any different regards professional practice?
What is the effect on development?
How do gender and class interrelate?
Is land important or is it really power?
What is the real role of technology in surveying?

**Dualisms**

Woman # surveyor
Macro # Micro
Structural # Cultural
Spatial # Aspatial
Land # People
Social # Spatial
Personal # Professional
Land # Control
Men # Women
Gender # Class
Personal # Public
Independence # Professional Control
Entrepreneurial # bureaucratic
Private practice # public service
Commercial # Governmental
Commercial # Geographical
Patriarchy # Capitalism
Patriarchy # Feudalism
Real # Social
Real # Trivial
Urban # Personal
Objective # Subjective
Academic # Practical
Production # Consumption
Home # Work
House # Home
Housing # Surveying
Planning # Surveying
London # provinces
Nature of the methodology

An ethnographic approach seemed most apt in seeking to understand the nature of the surveying subculture. Ethnography may be categorised as a 'style' rather than a specific set of methodologies (Woods, 1987) but it is normally associated with participant observation in which the emphasis is upon recording events, ethos, and conversations within the 'tribe' under study (Hammersley and Atkinson, 1983; Bell, 1989: 7). The ethnographer seeks to see, record, reflect on, and thus understand the world in the way in which the members of the tribe themselves do, "recreating for the reader the shared beliefs, practices, artefacts, [surveying poles?], folk knowledge and behaviours of some group of people" (Goetz and LeCompte, 1984: 2). A variety of methods such as interviewing, use of quantitative data, and study of subcultural literature are also frequently accepted as part of 'ethnographic style' research (Sherman and Webb, 1988), provided they are approached 'reflectively'. The border line between ethnography and 'ordinary' qualitative research is very elastic. However, it was decided to distinguish between my more ethnographic approaches, and interviews. This enabled greater triangulation between sources (Hammersley and Atkinson, 1983: 324) (which is a good surveying principle too, Hart and Hart, 1973: 324).

Quantitative limitations

My methodology reflects a gradual movement from more quantitative beginnings to my present qualitative stance, because outward appearances and 'facts' were of questionable value. It does not follow that because there are n% more women, that it is n% better for
women or more 'equal' (Greed, 1988). One has to look at what the women are actually doing and what level of seniority they have reached. False images of women surveyors abound. I was amazed to find a large property company using a photograph in one of its advertisements of a woman holding a map standing with two men on a building site: i.e. one third women. I phoned the personnel officer to find out who this woman was, who said "oh they're all actors, real people don't look right, they look awkward and don't stand properly ... no I don't think we've got any real women that actually do that sort of work, I'll check on my computer." I was made to feel silly for being so foolish to imagine she might be a real surveyor!

I had difficulty getting certain quantitative information, for example, for a longitudinal study of the students. If certain men feel 'intimidated' because they sense they are being watched, they are less willing to divulge statistical material as to marks and assessments. The reasons people gave for not giving me information were sometimes more interesting than the information itself. I decided to accept and be grateful for quantitative information when it was offered to me, but saw it as an added bonus on top of my qualitative data. I concluded I could obtain much of the information I needed more effectively through ethnography. Likewise at the beginning of the research I produced a 'doomed' questionnaire as discussed and presented in Appendix III.

Qualitative avenues

I sought to retain a broadly ethnographic approach to all aspects of the research, but undertook specifically ethnographic elements,
namely educational setting ethnography and retrospective ethnography. Whilst trying to retain the principle of remaining open to everything, my ethnography was partial in that it was directed particularly towards investigating four substantive issues of particular relevance to my research question, namely, (a) the overall world view of surveyors as to what they see as obvious and right, (b) their assumptions about land use and development, (c) their assumptions about different types of women and people and (d) what they see as the right type to be a surveyor. There is another sub-division running right through the research;— between observing aspatial social processes within the subculture; and secondly observing surveyors' views on spatial land use and development issues. The built environment is the ultimate ethnographic artefact, and occasionally I felt justified in going off and 'ethnographising' a new development for which surveyors had been primarily responsible: quite what Lutz (1981), an orthodox ethnographer, would make of that I dread to think.

The research was undertaken on a part-time basis over five years, on the basis (in theory at least) of one free research day a week, whilst in full-time employment, and involved in other necessary professional activities. On Fridays, I would divide my time between research visits and telephone calls, reading, and writing up key points and summaries of significant events, and more latterly papers and the thesis itself. I also spent time going through past copies of the Chartered Surveyor Weekly to build up the historical account, and reading current journals. I had to divide my time between all these activities to build up the overall picture, which is why I sought to be as direct and economical as possible in my approach to collecting information.
**Educational setting ethnography**  A selective ethnography of my own department was undertaken over a period of approximately three years, which helped me build up a better picture of the 'male backcloth' and overall ethos of the surveying subculture. There was a need to keep a low profile as a researcher, and to adopt unobtrusive methods so as not to 'upset' anyone. For example, unlike some ethnographers, I did not go into other lecturers' lectures, but I already have a knowledge of what they are like from my pre research days. It did not seem particularly useful to make detailed field notes of every single aspect of the situation as would be the case with the classic ethnographer who was 'new' to the subject, but concentrated more on the points outlined above, but make copious notes in certain situations (Appendix III). I already 'knew' about the world of surveying, but my extensive literature review helped me to construct a conceptual framework around that social reality (Berger and Luckman, 1972; Sayer, 1983), to 'make sense of it all', and with fresh eyes to appreciate the significance of what I was observing.

**Retrospective ethnography**  This method constitutes looking back on events of my life, as a woman in surveying, and thus developing 'sensitising concepts'. I already had an awareness and empathy with the issues that an outsider would not be able to develop so effectively in the time available. I am aware of accusations that I am desensitised by over familiarity. Therefore, I struggled constantly to "make the familiar strange" (Delamont, 1985 and 1989). I did not make specific notes from this source, as it was already 'in' me, but situations tended to trigger off recollections which I added to the ongoing account where appropriate.
Dispersed unstructured interviews  It was important not to limit my activities to one site, because my research was not looking at one educational setting alone, but the overall situation in both education and practice. It is a common strategy in studies of professions where people are dotted about in a variety of offices (Smart, 1984) to make a composite study of a range of settings and individuals. I contacted around 250 women surveyors speaking to them either individually or in groups. Also it seemed diplomatic to visit a selection of other colleges, so that I could mix my findings from these with those of my own college. I have purposely hidden the source of various observations to take the heat off my own situation, to avoid the "does she mean us?" and the "I didn't mean it that way" (p) syndromes.

When talking with the women surveyors I had in mind certain questions which I aimed to cover (Appendix III). As we talked the women usually answered most of these, without my having to 'ask' them. Indeed they would often surprise me by introducing topics that I had not previously considered that gave me new 'sensitising concepts'. However I did have in reserve a set of structured questions to use if conversation did not develop spontaneously, but normally there was never a silence in the whole proceedings. I talked to around 250 women in my dispersed ethnography, face to face in small groups or individually, and on the telephone. (Archetypal example of a telephone interview and a group discussion are in Appendix III).

Interview visits  As will be described in more detail in Part II, I visited a range of surveying firms, and having arranged an informal group meeting for perhaps 12 of their surveyors (usually mainly women) which often lasted a couple of hours. I sought both to observe the
overall set-up 'ethnographically' as well as carry out unstructured interviews (normally in the form of a group discussion). For example, when I entered the board room of one large surveying practice which the women surveyors had been able to arrange for our use, I found a young chap unpacking a new computer on the floor. This seemed very odd. "He just wanted to see what you were like" one of the women informed me, as he and his wrappings were unceremoniously shooed out. Apparently he was a young surveyor who had carefully arranged to have the computer delivered there simply so that he could have an excuse for being there (young male surveyors don't usually unpack their own computers). Such interesting incidents and occurrences that I observed whilst visiting were often of as great a value as the meeting itself as manifestations of the nature of the subculture.

**Telephone interviewing** My dispersed interviewing developed almost by default into something else again. If I wrote to surveyors to see if they would be willing for me to come and visit them they had to check with their boss, and whilst everyone hummed and ha'ad very little was achieved. When I subsequently phoned to check progress, one thing led to another and I found myself there and then conducting a telephone interview which developed quite spontaneously. I used interviewing women directly on the phone as one of my main approaches (compare Frey, 1983; Dicker and Gilbert, 1988) either by prior arrangement or on the off chance. The latter method was often the most rewarding and yielded the longest conversations. Once women sensed that I was giving out the right subcultural signals, the conversation developed and deepened rewardingly. The telephone has the advantage of giving anonymity and invisibility which, in my experience, surprisingly makes the women more open. In some cases the
women in question already knew of me through the grapevine, or I would subsequently meet the women in a social or professional context. I attended a variety of social functions locally and in London. The value of being part of the subculture was that I knew my way around.

Almost telepathically we would share a knowledge of what we thought was obviously important and of relevance. Asking formal questions could break the spell and restrict the flow. I only had to say at the beginning of a telephone conversation, "Why did you go into surveying?" and they were under starters orders and off, and one thing led to another. There was no need for further formality or 'control', but just occasionally I redirected the flow, if the conversation was going off the point. Women surveyors are always very busy and tend to be very economical and to the point in their use of their time (especially if it is also the firm's time). However, I was able to spend longer with others on a more intensive face to face discussion. Also I welcomed spontaneous conversations with surveyors, both men and women, and this was part of my normal daily social interaction as well as being research.

Balance I did try to be 'balanced' and talk to some men surveyors as well as women. However if I tried to discuss with men the relationship between professional and domestic roles, they mightn't understand what I was getting at. If I tried to talk to them as I did to the women and the conversation veered towards the personal, I found that they would either try to move the conversation back to the impersonal, or alternatively they would confuse my motives as social rather than sociological, saying "we must continue this conversation over a glass of wine" (p). (Of course, I was also observing them constantly, and
listening to what they were saying in my ethnography. In contrast, women surveyors would volunteer feelings and observations on personal and domestic matters without even my asking, quite spontaneously and entirely mixed up with their comments on professional issues. They often appeared to see everything in such a different light and can hold onto two realities at once; the professional and the personal. Even when discussing impersonal issues such as land-uses they immediately relate the discussion to their own personal experience, aware women surveyors commenting "the men can't know, they don't use the shopping centres and the buses themselves, they just sit in their offices playing with retail figures" (p). (This reflects the nearness of the Urban # Personal dualism). In particular women who have been 'housewives' as well as surveyors see things very differently from the young women straight out of college, many of whom still side with the men and can't see what all the fuss is about.

Serendipity

I was dependent, to some extent, on the women surveyors I knew already to give me contacts that would lead me on to others in order to contact a range of women of different ages, specialisms, levels of seniority and diverse life experiences. It was helpful and pleasing when I had talked to a particular woman, if the next time I saw her at a surveyors meeting she would rush up to me with another woman in tow, saying, "look I've found you a woman that dropped out of surveying and then went back into it, you wanted one of these didn't you?" (p). I got many of my contacts this way. I cannot claim a statistically correct sample rather a serendipitous selection, but I did get a representative spread of women, from a range of
professional and educational situations as will be explained further in Part II. I valued the 'serendipity' approach to getting a representative range of contacts (although I realise some researchers are somewhat wary of the "serendipitous datum", Smith, 1975: 244). Serendipity is "the faculty of making happy chance finds" (Chambers, 20th Century Dictionary). One contact led to another. This method is sometimes called 'snowball sampling' which is used according to Rose (1982: 50) "where populations are clandestine or deviant"! It is also valid when interviewing 'elite' groups (Moyser and Wagstaffe, 1987: 194) as one can run into problems without any prior contacts as I found receptionists on the phone would say, "women what? Of course we don't have any women surveyors working here".

Hidden Depths

Women surveyors are very complex beings. They certainly do not fit into mono-dimensional 'class' and socio-political categories. Whatever the area of surveying women enter, they are more likely to be motivated by a desire to achieve and be equal at a personal level, than by a sense of injustice, or anger, or a desire to change everything. However many women surveyors may later experience an inner conflict, and 'turn' when they discover they are not treated on equal terms in spite of all their efforts. The role model of the successful business woman seems to give such women enough incentive to overcome any initial misgivings created by the technological image of surveying and stories of abusive workmen, heavy equipment and difficult maths, and to have faith to believe that they will actually succeed in their chosen career. Indeed many will accept the world of men and business without question, and would describe themselves as "a
surveyor first and a woman second" (parallels with Campbell, 1987). Although they may at a personal level see the inequity of their situation, it is another matter again for them to see the needs of other women in society. As one very open and honest woman surveyor admitted, "I really have no idea how the average housewife lives, no more than the average man I suppose".

But women surveyors are a complex and conflicting mixture of many different 'selves', each self having a different role and sense of reality. Many seem to be able to hold onto an alternative more liberal internal perspective on life, although externally they may appear to be 'boring', bourgeois business women (Marshall, 1984). In my research interviews a certain amount of encouragement, even a bit of nerve to make comments against the grain of the conversation, was needed to reach these various 'other' levels of being beneath the surface of the public image of the mono-dimensional woman surveyor. Many would respond almost with relief when I did this, as they might be suppressing many role conflict dilemmas within their being.

The women often used a different accent and demeanour in recounting very personal accounts, of for example harassment, from their 'normal' manner and presentation of themselves as a professional woman. Indeed it was almost as if I were expected to go through a ritual warming up session, asking all the 'proper' questions about their careers and professional practice, during which time they will affirm there are no problems and everything is as it should be. Then, at a certain point, the conversation seemed to change gear and they would then proceed to say many other things that might actually contradict what they said earlier. Women are so used to having to keep face both with men and
other official women, and acting out the role of the equal woman, that they cannot easily let go of this image. Once they have sized me up, then they could trust me to say what they really want to say. I suspect that researchers using conventional interview methods to interview women may never break through to this second stage.

Many women seemed to have a burden to bear witness of their experiences: "you must write this down but don't say I said it" is a common statement. For example, one woman told me how in a certain provincial practice a woman announced she was going to get married. It happened to be the time when the firm's headed note paper was being reprinted. She was astounded to find her name was left off on the list of associate partners at the top of the page, being told, "oh, we thought you were going to leave, women always do when they get married". Some appeared very upset when they recounted such events, and several have said if they bottle it up it does come back to them later and wears them down, opining, "it's not so much outright discrimination, it's all the little things that get to you after a while". Some were very conscious of their own life history. One of the first women building surveyors rather dispassionately said, "I kept a scrapbook like a film star" of all the times she got the 'first woman' treatment in the professional press, and treated it all as rather amusing and separate from the 'real her', commenting "I just wanted to be left alone to get on with my job". There is a great richness and diversity in the experiences of women surveyors, as will be demonstrated in Part II.
PART II
THE WORLD OF SURVEYING
Chapter V - THE BACKGROUND TO SURVEYING UP TO 1900

Introduction

The next three chapters outline the historical development of the surveying profession, linking the material to the key concepts identified in Part I and referring to the model where relevant. Interrelationships between gender, class and space are highlighted. Where appropriate, present day material will be introduced into the historical account to illustrate the strong influence of the past on the present nature of the position of women in surveying.

The Origins of Surveying

Thompson observes that the skills of surveyors have always been needed in "orderly and property conscious societies" (Thompson, 1968:1). Surveyors do not see themselves as mere land-use technicians, but as custodians of civilisation itself. This attitude is echoed in recent times in an advertisement stating, "property is the basis of civilisation and art is one of its great achievements" (c/s, Vol.13,No.1:9, 3.10.85 of supplement). Incidentally this is also an example of 'the borrowed glory trick' which occurs frequently.

Surveying is the profession concerned with ownership, dealing with the valuation, auctioneering and management of both real and personal property; e.g. houses, estates, livestock, antiques, even shooting rights; and nowadays office blocks, retail centres and investment portfolios. The ethos of surveying espouses traditional conservative values, and applauds possessive individualism (Mac Farlane, 1978). This
demonstrates the deferential link in my model between the values of the subculture, and the landed interests it serves, which contributes to the maintenance of capitalism.

Historically surveying developed to meet the needs of landed wealth which owed its origins to feudalism (Fitzherbert, 1523). As late as 1875 surveyors were advising the owners of over three fifths of the landed property in England (Thompson, 1968; 167), the bulk of which belonged to a small number of families. Over two thirds of the land throughout the centuries was held as large estates generally as 'settled land', where dynastic patrilineal ownership rather than individualistic owner occupation was the rule (Thompson, 1963). Early surveyors were more concerned with land management (Leybourn, 1653), rather than property investment and transfer, as most land was inherited rather than bought. Trade in land as a commodity did not come in until later with the growth of capitalism. Even today surveyors see themselves as primarily estate managers (and not estate agents). In the modern commercial world, this emphasis on 'management' has as an added twist, being directly linked to the property market and wider business world, rather than to the needs of individual owners. Enid Harwood (1987) (a prominent non-RICS woman surveyor) significantly writes "a growing commercialism is blowing away the restrictive practices of a once privileged age". The historical expertise in land (Joseph, 1980) is still stressed to legitimate the surveyors' image and right to a special professional monopoly (Goffman, 1969).

Over the centuries a fine distinction developed between the work of surveyors, and accountants who were also concerned with wealth
management. Even when land was converted into money in the modern era surveyors retained control of investment related specifically to land. Surveyors also had to resolve their territory with "the monstrous regiment of lawyers" (Thompson, 1968: 29) who made several attempts to take over the pitch (compare e/t, No. 907: 36, 14.8.87, "RICS ... war against solicitors"). One has to be aware of these ground rules and territories among men, before even considering women.

From a class perspective it should be remembered that only 10% of property was owner occupied before 1914 (Merrett, 1979: 1). Some would argue that today 90% of the wealth is owned by 10% of the population (Norton Taylor, 1982), and that the real power in Britain is still feudal rather than capitalistic, or perhaps the two have merged. Whilst one could argue that nowadays the really big landowners are financial institutions (CIS, 1983) and that we live in a property owning democracy in which over 60% of housing is owner occupied; it is important to remember that only 10% of Britain is urbanised (Best and Anderson, 1984: 22), and that big estates still cover much of the space in between. 'Space' matters in measuring 'power' (Ardrey, 1967: Ardener, 1981: 26). Whether feudalism which is based on land, or capitalism which is based on production, is the more patriarchal is a question of great interest, when dealing with the position of women in the landed professions. Several senior men commented to the effect, "we always take the best man for the job, even if she's a woman, ... women are better value for money" (p).

The fact that women now have 'the same' opportunity as men to be surveyors, to serve this landed elite with its strong patriarchal heritage, but not to change it, is a strange form of equality indeed.
Both women surveyors and the modern morgageriat are joining an ancient club that was created by, and for very different types of people. Even if women have the right to enter, one still comes across a certain male huffiness and 'lack of respect', that no doubt is a reflection of the effect the past has had on shaping men's values. I remember leaving a meeting of women surveyors early, at the RICS headquarters, feeling elated, when I happened to overhear a couple of men surveyors asking the porter, "what are all these women doing here?".

Until relatively recently in history, women were virtually seen as property themselves. Thompson (1968:16) writes of "highly active land and marriage markets" in Elizabethan times. By comparison several women surveyors have stressed to me the importance of possessing negotiating skills similar to those required by the traditional woman marriage broker, seeing this as a positive attribute rather than sexist factor (compare Bar Hillel, 1984).

In the historical rural estate, women were likely to be seen as either members of the owner's family, or as estate workers, but not as potential surveyors. I came across a book written by a woman rural surveyor who was a land agent on a large rural estate in the 1950's, but one is given the impression that so little had changed it might have been the 1590's (Napier, 1959). The book is a sensitive retrospective sociological account of the author's experiences (camouflaged in a humorous style). She graphically describes the tenants' reaction to her, which reflected centuries of unwritten rules. They did not know what to make of her, "young ladies was young ladies when I was a lad", bemoans one of the estate labourers. They tried to drop her, accidentally on purpose, into the slurry pit, to
put her in her place. Read from a modern feminist perspective one could see the book as an example of every sort of harassment imaginable. However she was exceedingly resilient and took it all in her stride expecting no 'special' treatment, a characteristic of many of the 'first women' of the time (and today).

One should not over-generalise about the past, as some women did own property themselves. The inventory of property interests after the Great Fire of London (Mills and Oliver, 1967) suggests considerable female representation. As the centuries rolled on, the situation actually deteriorated, right up until the reforms of the late nineteenth century (Atkins and Hoggett, 1984: ch. 1).

Change

Gradually certain surveyors broke away from the landed estates and set up in private practice. They were likely to have come from an agricultural background themselves, and met the professional needs of yeomen farmers on a freelance basis. In 1760 John Player, a Gloucestershire farmer, extended his surveying activities to a full time practice (Sturge, 1986: 4) later being joined by his nephew Jacob Player Sturge. Some of the most prestigious firms of today are derived from relatively humble origins. In 1765 William Clutton, the third son of a vicar, married his employer's daughter and thus took over a small surveying practice (Cluttons, 1987). Others were started by high class founders and seem to have kept that elite status right up to the present day. For example, Edward Strutt, a founder of Strutt and Parker, was a yeoman farmer himself (Strutt and Parker, 1985: 1) and fifth son of a lord, and had attended Cambridge. The diverse social
origins of the early surveyors were to be replicated in the 'type' of young men that were attracted to surveying for many years, and to some extent even today. They included younger sons of landed families, keen bright young men from non establishment backgrounds, and what were/are seen as "perfectly ordinary chaps" (p) with a tradition of family business or farming backgrounds, i.e. the entrepreneurial middle class (Miller and Swanson, 1958) plus various 'marginal' men.

Women had some involvement in the professional activities of these firms. Maria Savill (1807-1894) on the death of her husband, took over the family firm which at that time included a building business (Watson, 1977: 81). A more recent example is Margery Dawes, who ran the family firm in the early part of this century and was known as a formidable figure at Hoddell Pritchard, a small provincial practice (Hoddell, 1985). Likewise the wives, in the prestigious firm of Drivers Jonas, were expected to know the business (Barty-King, 1975). A wife needed the equivalent of a surveying degree to converse with her husband. The love letters of a young surveyor to his sweetheart in Barty-King's book (1975: 49) are an unusual mixture of passion and property. The private and the professional realms had not yet been divided in this family firm. No doubt such women nowadays would be more likely to qualify as surveyors themselves, and indeed they do.

Thompson notes the importance of large surveying families that formed dynasties, and produced the elites within the profession (1968: 234). Many of the elite group from which Presidents of the RICS, and senior partners of the prestigious firms are drawn, are likely to be married to daughters of surveyors (e.g. c/s, Vol. XXVI, Part VII: 415, January, 1947). One could argue that women have always had a prominent
position in surveying, the difference being that nowadays they have formal qualifications. Interestingly women surveyors today, although a small minority (but as stated, often 'classier' than the men) are more likely than men (proportionately speaking) to be found in high prestige elite practices. Whether their role is the same as that of the men (Delamont, 1976) or a re-enactment of the historical role of the helpmeet (Heine, 1987) or that of a micro-proletariat is another matter. Indeed women are more likely to achieve low status positions in high status practices, than high status positions in average practices.

There were no qualifications or exclusionary mechanisms based on education in operation at all until the mid nineteenth century; surveying was a skill passed on from father to son - the ultimate exclusionary mechanism for women. The status of a particular surveyor related to the value and type of property he dealt with, and the opinion of his clients. Some individuals were small tradesmen who dealt with property transactions, and might also have done a spot of auctioneering, and combined this with being the local coal merchant or undertaker too. For example, Alonzo Dawes, one of the founders of a small provincial practice, was originally an auctioneer, valuer and coal merchant (Hoddell Pritchard, 1985:3). At the other extreme there were high status and rather risky auctions 'by the candle' in Garraways Coffee House Cornhill for wines, and later lands and houses (Thompson, 1968:48), organised by 'posher' but not more qualified gentlemen. Already the London # provinces division was becoming visible.
There were completely different types of men of a lower status, who also called themselves surveyors. In London there were paid officials called surveyors who dealt with land and property as employees of the King or municipality (Mills and Oliver, 1967). These were the early ancestors of the Borough Surveyors that were to come to prominence with the creation of local authorities in the nineteenth century. Also there were building surveyors and 'measurers' (ancestors of quantity surveyors) who were nearer to craftsmen than professionals in status, and belonged to powerful guilds, including those of masons which were strongly masculinist in character (Cockburn, 1985, b). These masonic and technological associations are significant. Although related to a different class culture from that of the prestigious gentlemen who indulged in estate management, these traditions were to be incorporated within the pantheon of values of the surveying subculture, and embedded in the professional institutions that arose from it. They were thus carried through to the twentieth century, and used as exclusionary mechanisms against women.

Enclosure

The fortunes of surveyors improved significantly with the coming of the enclosure acts. Thompson (1968: 32) describes enclosure as "a pre-eminently mappable activity". The role of land surveying, and especially chain surveying, is a key sensitising concept, and shows a direct subcultural link with 'space' in the model. It is the one bit of essential knowledge that gave surveyors their raison d'être to be seen as a profession. To the general public as stated in Chapter I: it is still the most visible aspect of their work, but it is not what they do! Chain surveying was retained as an ancient skill that had to
be learnt, when it had long since been delegated to technicians. In due course, the government created its own surveying unit, the Ordnance Survey, effectively removing land surveying from the private sector, making it patently obvious that most private sector surveyors are not chiefly involved in "real surveying" (c).

Thompson comments in the twentieth century, land surveying served to remind surveyors of their original links with the landed estates (Thompson, 1968: 191) (a meso to macro link on the model). However over the centuries it gained a symbolic power which could be invoked to repel women on the basis that surveying was obviously 'too technological'. The surveying pole became incorporated in the logo of the RICS, as a totem representing spatial (feudal), sexual and professional power. The historical tradition of seeing land as 'sites' to be surveyed, rather than as parts of whole cities and space where people live, accounts for the narrow vision that characterises surveyors today, which leaves no room for the consideration of women's needs.

Regarding my model, mapping and plan making were ways of exerting power over space, on behalf of the dominant groups in society who were seeking to formalise their control. The surveyors as the agents of these groups were sharing in this power. Surveying was a means of formalising colonial conquest and government. For example George Washington was originally a colonial surveyor (Thompson, 1968: 44). The surveyor was always one of the first 'white men' to be sent out to speed up the process of colonisation. This seemed to give them a natural 'right to rule' which they brought home with them (and some seem to exude in their manner, even today). It was not until the
twentieth century that the planners, as descendants of the surveyors sought to use plan making as a form of power in itself against the landed interests their surveyor ancestors had served.

Surveyors found themselves in even greater demand following the 1836 Tithe Commutation Act. Several of the early surveying firms were set up by Quakers, such as J P Sturge. They had to think twice before allowing themselves to be involved in the administration of this Act, as their religion was against both the idea of tithes to the established church and the taking of oaths as commissioners of the act. They had to develop a sense of professional distance and impersonality, separating their personal beliefs from their public duties. The elders of the meeting house "took the common sense view" (Sturge, 1986: 8) and decided that it was perfectly legitimate for a 'Friend' to act as an intermediary between the tithe owners and tithe payers. This illustrates the beginnings of the modern bureaucratic personality (Gerth and Mills, 1954: Merton, 1952) and reflects a deeper, more worrying, characteristic of patriarchal society, namely the division of work and home, so that the rational man leaves his personal opinions at home when he goes to work (Bernard, 1981).

The firm of J P Sturge went on to become a major provincial practice retaining their reputation for high integrity to the present day. But the puritanical founder member, John Player, was to gain future notoriety in having his name emblazoned across cigarette packets and racing cars in the twentieth century, as a result of his descendents having married into certain tobacco interests in the nineteenth century (an interconnection between capitalism and the profession at macro level of the model). As one socially aware, woman surveyor
commented, "you can be sure that anything that is seen as a sin nowadays was started by the Quakers in those days", presumably including surveying, smoking and capitalism in her condemnation?

As government intervention and taxation increased over the years, the numbers of surveyors working for the government, and those seeking to give professional advice on tax minimisation in the private sector, were to grow apace to the benefit of the emerging profession. Surveyors have often joked to me that they are always needed under a Labour or Conservative government and they always profit, especially from legislation aimed at reducing the profits from property investment. I could see a parallel between these early surveyors and modern women surveyors. Marginal groups such as Quakers and other non-conformist groups had apparently gone into surveying as a means of advancement, through providing a professional service. They made progress because of their skills and work, rather than because they were initially 'the right type'. However their role was in a sense that of the outcast, as they were required to assess landowners for the purpose of taxation. Paradoxically in operating as the agents of the government, with time they became 'insiders' and arguably espoused the values of the dominant group more strongly than its original members (compare, Campbell, 1987).

Although absent officially in these Quaker family firms, women held a surprisingly equal position in the Friends meeting house (Sturje, 1986:13). It is rumoured that such women did a considerable amount of what now would be seen as office work and draughtsmanship at home, and were often their husbands confidentes in professional decision making. By the nineteenth century, home and work was
increasingly separated as evidenced by a poem written in 1840, on "The miseries of a land surveyor's wife", by one (e/t, No.825:9, 13.12.85).

New roles were developing for women from the leisured classes in emerging capitalist society. The prosperity derived from land helped to bring the surveying profession to eminence, whilst at the same time leading to the subjugation of women (a 'knot' in the model). Unfortunately the rising bourgeoisie decided that women should no longer be part of the public realm, or of capitalism itself, suggesting that patriarchy was operating independently of capitalism. Indeed why does capitalism have to be so 'male' (Hartman, 1981), suggesting it is a sub-set of patriarchy? Unlike the men, bourgeois women were not allowed to be part of the 'revolutionary' class too: until today? They seem to be one class phase behind, having to wait for proletarian men to have their turn first. Rich heiresses had to be parted from their money in order to support the investments of their husbands in trade and industry. Women were losing the few property rights they had, in spite of a growth of national prosperity and individual male property ownership. Hoggett and Pearl (1983:101) discuss the question of why this was so under English law, when other countries were adopting systems such as the community of goods within the family, or reserved portions for spouses. In the same way that there is something peculiarly English about having a profession just for Land: married women's property rights (or the lack of them) also reflect this fetishism with the desire for possession of land and property by men.
**Industrial Revolution**

Surveyors were in great demand as the spatial enablers of the Industrial Revolution because of the strong territorial emphasis inherent the development of mines, buildings, canals, railways and roads. There was a major shortage of surveyors, so much so that young boys were being used to do surveys who could hardly reach on tip toe to look through the theodolites (Thompson, 1968: 110). Women were told that they could not do surveying because they were too small or weak, but this apparently did not apply to these boys (nor as several women have commented, to elderly men nowadays). Unlike in the past, when it is rumoured the average surveyor’s wife would have thought nothing of doing a spot of land surveying herself (compare Walker, 1989: 92), middle class women by now were out of the professional labour force. This is not entirely true, as exceptional women, such as Maria Savill, mentioned above, were still doing professional work. Also it is rumoured that some daughters, in surveying and engineering families, were undertaking technical drawing at home for their fathers.

As more men became surveyors clearer divisions and status levels within the profession (Weber, 1964: 426) emerged, and the modern range of landed professions was becoming apparent, including architects, town planners, quantity surveyors, land surveyors, and estate managers. Relatively speaking these differences were secondary from a feminist perspective, as they formed a closely knit fraternity, as they were all men concerned with the land and property who saw the world in similar terms.
Demarcations of territory between the other professions concerned with land and property had to be resolved. There was a growing demand from the public and government for the regulation of standards of professional competence, which eventually led to the introduction of formal entry requirements and examinations. All this occurred between men without reference to women (Stewart, 1981). When women were allowed into the professions in the next century they had to fit into these existing male structures, or lump it. It is another stage again to try to alter professional structures to fit in with the needs of women and men.

An added factor to put in the pantheon of the values of the surveying subculture comes to prominence at this time. The narcissistic love by men of a man-made world full of machinery, engines, railways and industrialised building structures was reflected in a new macho-technological mentality, which infused the value system of town planning, civil engineering, architecture and surveying for many years to come, making women feel out of place or inadequate. As stated earlier, Griffiths (1985:66) comments that technology is even more 'male' than science, and can be used as a major exclusionary mechanism. As the professions became both more technological and less amateur, women's unofficial role was diminished, indeed the effect of increased professionalisation was to exclude them totally. I have often pondered whether in fact 'professionalisation' is not really a sophisticated form of 'masculinisation', and this cannot be seen as over essentialist in the light of the historical record of the late nineteenth century (another interaction of gender and subculture at the meso level).
By the mid nineteenth century, changes in technology and urban theory conspired together to structure the city on the basis of male principles and activity patterns, which were to determine the format of urban development right up to the present day. The new industrial machinery required manufacturing to come out of people's homes and be concentrated in the new factories (Whitelegg et al, 1982: Part I). With the growth of railways, and later mechanised motor transport, many workers sought to live further from their place of work, thus creating distinct residential and industrial districts. The traditional combination of work and home in the same spatial locality, if not under the same roof as in craft industry (and professional practices), had been severed to the disadvantage of women. This separation was further encouraged by the increasing enthusiasm for land use zoning as promoted by the founding fathers of modern town planning (Cherry, 1981). The surveyors' love of mapping was transferred into an enthusiasm for zoning and dealing with social problems by creating orderly spatial layouts.

Town planners further compounded their error in categorising urban activities in terms of work, leisure and home from a male perspective, precluding the fact that women's work was often in the home as well as out of it. This carried right through to the next century (Le Corbusier (originally, 1929) 1971:199). Justification for such policies was based on the assumption that they increased efficiency (for whom?) and reduced chaos and distractions. Surveyors have never had any reason to object to these principles of town planning. It was in the interests of property owners and investors to have a clearly defined land use pattern, to protect land values from being watered down by less profitable or lower status uses, and to enable infrastructural
services to be provided in the most efficient manner. Indeed many surveyors accept the need for the town planner to act as "the referee" (c).

Not only was women's work not acknowledged as part of the economy, or herself as part of society, but women themselves were increasingly seen as a form of property or almost as luxury goods, part of the entourage of the Englishman's home which was "his castle" (Davidoff and Hall, 1987). This may have originally been an upper middle class attitude, but it seemed to have great popularity amongst working men who could bolster their pride as the breadwinner, by stating that their wife didn't have work and that she was there to cook for them (Campbell, 1985: 111). Occasionally, men surveyors have stated to me, quite out of the blue, "my wife doesn't have to work" (effecting instant demolition of my self value, and whatever I had achieved that day).

In contrast, to give them their due, whatever their true motives, many of the philanthropic factory owners who built model communities recognised the value to them of women's work, and did in some cases design the layout and the social amenities of their towns to enable women to be workers in and out of the home (Gardiner, 1923). Ironically early twentieth century suburban housing was often designed in the style of the idyllic mock tudor cottage that was originally the trademark of such settlements.

Although such houses, externally, had the environmental benefits of being located in green field sites, they further enforced the principle of housing being at a commutable yet distinct distance from
the workplace (McDowell, 1983; Wagner, 1984), this arrangement creating what some urban feminists have variously described as the suburban hareem, and the lace ghetto (Hotz, 1977). Internally such property often lacked any space for women. She 'had' either the kitchen or the bedroom neither of which were really hers. Women were increasingly defined as consumers rather than producers. From a neo-Marxian perspective one could argue that both the growth of consumerism and house building itself were an inevitable result of surplus capital looking for somewhere to reinvest following the decline of the Empire (Bassett and Short, 1980). This theory makes a conceptual link as to how the requirements of the economy (at the macro level) may, to some extent, 'determine' people's personal aspirations and values (at the micro level).

Increased state intervention further reinforced the predominance of male values as the basis for dealing with the built environment and creating a 'better' society. The problems of the nineteenth century were seen as a clear sign that human nature was out of control, thus giving rational professional men the right to take control of the lives of lesser beings. This was particularly true of the growing state intervention professions such as town planning, but also true in the private sector in which land and people had to be tamed and made productive by the building of railways and careful estate management. The solution to many urban problems was perceived to be through slum clearance and the construction of model housing, thus emphasizing the indispensable role of the landed professions in offering salvation by bricks. There is a strong class element here as the working classes were often seen as the cause of all problems in society. These
comments are not merely of historical relevance but are themes that run deep in the psyche of the landed professions to the present day.

Many middle class women were involved in their own right in reform, however they have frequently been marginalised and seen as mere 'lady bountifuls'. This was particularly so in respect of women involved in health, housing and the early town planning movement (Boyd, 1982). Whilst men were praised for their philanthropy and the creation of 'gas and water socialism', women were condemned and marginalised for their 'sewers and drains feminisal (Hanham, 1986; Greed, 1987a). This dismissal of women was clearly related to the move for the increasing professionalisation and related masculinisation of the government of space in the nineteenth century. There was a powerful urban feminist element in existence at the turn of the century both in Britain and North America (Hayden, 1981). Many of the key women have been overshadowed by the emphasis on dominant male figures as Ebenezer Howard, 'the grandfather of British town planning' (Howard, 1898). Then, as now, there were a variety of alternative policies proposed by urban feminists. Broadly these run along a continuum between those that believe that domestic work should be collectivised and minimised, and those that believe it should remain individualised but that every support should be given to women both in and out of the home. In particular there were many women interested in housing (Brion and Tinker, 1980) and in what was called co-operative house keeping which was meant to cut down domestic labour in the household by applying modern collectivised industrialised methods (Pearson, 1988). None of these knowledgeable women could however call themselves professionals.
In the early nineteenth century, anyone could call themselves a surveyor as there were no standards or regulations in existence. The old tradition of depending on reputation as a control on quality no longer worked in the large impersonal cities. Dissatisfied clients were demanding more controls so that they at least got value for money. The government was concerned with shoddy workmanship in the building industry, and with the wider environmental problems of housing and public health. In 1842 Chadwick produced his famous report on the sanitary conditions of the new urban working class, roundly denouncing surveyors as inefficient, incompetent and expensive. He was particularly concerned with the "weeding out of slow witted men" … (Thompson, 1968:127). As a result the 1844 Metropolitan Building Act created a new category of surveyor, the District Surveyor, who had to pass an examination before appointment. These are the ancestors of the future local authority surveyors and town planners who were to develop almost separately from the more prestigious but less qualified private sector estate managers and surveyors (ibid:140). Whether they were benefactors or another 'class' of controllers as deadly in their own way as the earlier aristocratic controllers of land is a matter which will be pursued in later chapters.

When dealing with the Industrial Revolution with my students, if I ask what started it all off, the answer will be instinctively that the landowners were the prime movers, as they provided the wealth to start the Industrial Revolution and therefore they are to be praised and not criticised. By inference the surveyors were their advisors and responsible for the achievements of the time: a different picture from that given by both Chadwick and Marx.
The 1844 Act had not only marked the beginning of regulation but had established the principle of opening up the profession to people of talent. It was the beginning of making meritocracy (Young, 1958) at least one of the ways in which surveyors might be selected; and in the long run this was to benefit women. At this time there were virtually no surveying courses, except for a few short courses for those entering government service. Most professional education still took place in practice, and degrees for the landed professions were unheard of. Indeed when education requirements were first discussed in the private sector back in 1834, it was simply suggested (and soon forgotten) that a trainee should serve a four year apprenticeship "with his father to the age of 24" (Thompson, 1968: 96). The move towards formal qualifications was very patchy and half hearted. Even in 1920 it was still a bit hit and miss to know if one had employed the services of a qualified surveyor, as evidenced by the confusing advice to would-be property owners of the time (Ford, 1920: 5).

As Thompson comments, "professionalism was in the air". The solicitors had formed a society of gentlemen practitioners back in 1739. It was not until 1834 that five architects combined to form an Institute. Back in 1792 a group of quantity surveyors had tried to form together. Nowadays quantity surveyors form nearly a third of the membership of the RICS, but for many years they had an uneasy relationship with mainstream surveyors and remained separate. As with housing they might be seen as another sub-universe (Berger and Luckman, 1972) but in this case it is based on differences between men, as they have very low numbers of women. Surveyors were not enthusiastic about forming a professional body, as this went against the ethos of the subculture (which significantly can exist without any formal organisation).
Clutton thought that surveying could only be "maintained by individual energy" (Thompson, 1968: 132) and projected the role model of the independent professional, which still appeals to many surveyors today. However they had to be wary of the powers of the lawyers who wanted to take over some of their territory as professional advisors of the landed classes. Also they had to strengthen themselves against the potential threat of the architects moving in on their territory.

In 1834 nine surveyors set up the Land Surveyors Club, meeting in the Freemasons Tavern: a heavily gendered atmosphere (Thompson, 1968: 73; Cockburn, 1985, b). All had at least some experience of land surveying but their role as property advisors and valuers was considered more relevant in enforcing their status as professional men (Thompson, 1968: 95). The aims were to establish their reputation in the eyes of the public, to raise themselves above the level of common surveyors, to work to an agreed scale of charges to avoid unnecessary competition, and to develop proficiency by acting as a study group. This early association fizzled out under pressure of work but was recreated in 1868 on a firmer basis. This was set up under the chairmanship of John Clutton with twenty members, William Sturge being one of the three non Londoners (Sturge, 1986: 13). Most had fathers and grandfathers who were in property. This core constituted an elite group whose descendants are still highly influential. They in turn selected a further hundred members to join them (Thompson, 1968: 158).

Although they were a voluntary professional association, it was realised that social elevation could only be achieved by better education. It was hoped that the new Institution would seen as "a great University" for the profession of surveyors (Thompson, 1968: 168).
Attempts were made to introduce a programme of learned papers, but as Thompson remarks, (revealing his own sub-text) (1968: 170) these were more "suited to a ladies literary society than a professional institution". However they were aware that it might be pragmatic to be seen to have examinations. In 1881 the Institution was granted its Royal Charter, on condition that examinations would be introduced. These ran virtually unchanged until 1913 when the examinations were further subdivided and modified, but basically the 1880 structure was adhered to until 1932! The surveyors were proud of the fact that they were the first "rule of thumb" profession to introduce examinations (although they were not compulsory for all members, especially not the founder members).

By 1881 the basic format, chartered status and examination system had been established to take the surveyors into the twentieth century. Sturge produced a seminal paper on the education of the surveyor in 1882 (Thompson, 1968: 182) which stated that it was impossible to test the professional knowledge of a surveyor as his work was of necessity practical rather than theoretical. This classic anti-education attitude has continued within the subculture to the present day. However there seemed to be a new enthusiasm in society itself for education, albeit for the working classes as evidenced by the 1870 Education Act. By the time of the 1902 Act, it had become acceptable to have standards for middle class, and eventually for professional education too. Education became part of the spirit of the age. This seemed a bit late, as after all the entire Industrial Revolution had occurred without more than the minimum of formal education.
CHAPTER VI - TWENTIETH CENTURY DEVELOPMENT OF SURVEYING

Introduction

At the turn of the century, the Institution had 2267 members (Thompson, 1968:341). A very few surveying courses were beginning to develop. Certain agricultural colleges were amongst the first, thus reinforcing the traditional rural (and male) associations of the subject. One such college was well known for not admitting women until relatively recently. One woman told that when she enquired about entry in the early Seventies she was told that there was no accommodation available for women, although admittedly the situation has improved in recent years. The first full-time university degree in surveying was introduced at Cambridge in 1919. Surveyors were concerned about status and saw 'education' as a down market activity with working class associations unless it was Oxbridge. They were concerned (Thompson, 1968:229) that young surveyors would acquire "desultory and expensive habits, if not vices" from university life which would spoil them for the drudgery of the office. However it was suggested (Thompson, 1968:230) that surveyors should be educated to hold their own with clients (compare with the idea that wives should be educated to converse with their husbands, Bernstein, 1975).

Private correspondence and crammer courses were the main methods of qualification. It is unknown whether any women attempted these courses. Several women, who qualified in the last ten years through the correspondence route, said they thought it was best to use initials rather than first names on essays. "Postal domination" was to characterise surveying education for many years with college courses
being the exception rather than the norm. In the inter-war years the pupillage system began to crumble, which in the long run was to the advantage of women in providing more open access, making opportunities for education and qualifying experience no longer linked to the whims of the employer or birth.

The early Surveyors Institution had established entrance requirements (at approximately 'O' level standard) which entitled a candidate to be articled to a practice from the age of sixteen. The range of subjects required for entrance was only available at public and good private schools in the late nineteenth century, and so one needed 'class' as well as 'brains'. The social connections and sports activities participated in at school have always been seen as equally if not more important than academic pursuits. All male surveyors are not equal; a ready made status hierarchy exists among men in surveying even before they enter the profession, based on school backgrounds and sport. Women's (even lower) position must be seen against this pre-existing pecking order.

Whatever the educational backgrounds of surveyors, many make much of the fact they are high status distinguished professional gentlemen who seem to imagine they had a right to rule (Steel, 1960) They like to give the impression of strong university links either with the technological side of surveying science (Hart, 1948) or with the classics (Battersby, 1970 1). These themes continue through the present day, being reiterated in the annual "Presidential address". Surveyors often use the borrowed glory trick by publishing articles by distinguished outsiders, especially from the legal profession (Heap, 1973). The latter article projects a sense of false humility
and suffering in implying that a professional is only "a man who does his duty". Incidentally this contradictory image that, "it's nothing really, it's quite ordinary to be a surveyor", (p) often appears when 'society' or 'women' threaten or question the profession.

The Entrance of Women

There were no urban surveying courses at the turn of the century, although the City of London College, and Birkbeck College from 1919 each offered a few classes. Thompson describes (significantly within his chapter, "The Institution and the Public") how in 1899 a Miss Beatrice Stapleton asked to take the exams from Birkbeck college, presumably having attended the course (Thompson, 1968:318). With relief the Institution stated that candidates had to be employed in surveying first for a specified period, and that it was impossible for a woman to find such employment. It did the same in 1915 when a Miss KV Smith applied, and declared that women could not become surveyors; nowadays one is more likely to be told that one cannot be a woman and a surveyor at the same time. However, it did concede that its charter merely spoke of "persons who are surveyors" and did not specify their sex.

Some women appear to have been taking surveying courses. Every-woman's Encyclopaedia (1911:2840) mysteriously contains a photograph of women attending a surveying class at University College, Reading about 1910 (there was no surveying course there then). It is captioned, "Students attend a lecture on surveying, they are constantly taught the doctrine of hard work, and are prepared early for future arduous conditions to which their professions will subject them". It is a classic case of
women mistakenly perceiving the level of standards required and therefore imposing on themselves the need to work twice as hard (a false image which some men were/are only too happy to foster).

In 1918 an external degree of London University in estate management was set up through the newly established College of Estate Management (CEM). The link with the University was made because, in 1918 William Wells a leading surveyor of the time, was the brother of the Vice Chancellor of London University. In 1968 the CEM moved to Reading University, and it is interesting, in respect of 'surveying dynasties', that another Wells was President of the RICS at the time. At a more mundane level there was a gradual growth of courses in technical colleges, especially in the first wave of Polytechnics founded in the inter-war period which operated on a night school basis, providing the bulk of surveying education (Venables, 1955:293). Education itself did not operate as an exclusionary mechanism or as a conveyor of status, rather the requirement of having sponsorship and experience from an approved office was much more of a hurdle through which closure could operate.

Meanwhile town planning degree courses were being established (Ashworth, 1968:193). The Town Planning Institute (TFI, now the RTPI) had been established in 1913 (Thompson, 1968:193) initially as a learned rather than qualifying association. Town planning, with its utopian reformist ideals, appeared to represent another subculture from surveying, but many notable surveyors also supported its inception, and saw themselves as town planners too. Surveyors have always looked upon town planning with some misgivings seeing it as "unBritish" and radical (Rowe, 1955) and possibly linked to garden
cities, bicycles, liberated women and fabianism; although there were very few women visible in the TPI. As will be seen, since its inception surveyors have either tried to be in control of town planning, or to dismiss it. It was an affront to their claim to be the main landed profession, its very existence suggesting their own failure. Town planning was obviously urban and progressive, whilst surveyors were still traditional in outlook.

Whilst in the nineteenth century women had been pushed out of male employment areas, after the first world war, because of economic necessity and first wave feminist pressure, women were allowed into the professions, following the 1919 Sex Disqualification Removal Act (Thompson, 1968:319). However it was considered that women would never qualify as surveyors because so few offices would take them. Undeterred, what were to be the first two women surveyors, namely Irene Barclay and Evelyn Perry, attended an evening course in surveying (Barclay, 1976:15). I was able to correspond with Irene, who until her death in March 1989, was not only the first but the oldest women surveyor (27.5.1894 - 21.3.1989). She remembered that they were the only "girls" (sic) amongst a crowd of young men, and that the lecturer who dealt with drainage and sanitation was acutely embarrassed (Barclay, 1980). Irene was first to qualify in 1922, rapidly followed by Evelyn. She got around the practical experience aspect by being employed in working class housing estates by the Crown Estates Office. She was supported by a network of professional people, including sympathetic surveyors within the Institution. At certain times (but not always), government service is more open to women than the private sector, male wags telling me, "well it's because they can't get anyone better" (p).
Soon after qualifying Irene set up her own as a chartered surveyor, and got married and had children at the same time. She did all the things that women surveyors do today and experienced all the 'same' problems. No doubt some of the men felt threatened by her existence, this being a classic example of "the bright women and dull men syndrome" that was to replicate itself frequently. Some men almost seem to fall into surveying, (the safety net factor) as it was seen as "a jolly good thing to do" (sic) (c/s August 1978, Vol, 111, No. 1:8) (this is less true today, and there have always been 'bright' men too). Girls meanwhile had to be very hard working and bright, and still experienced great difficulty. Women's work seems to be judged and perceived quite differently from that of men. No wonder many women feel there are two sets of rules and two separate surveying cultures, one for women and one for men.

Irene Barclay is an example of the early type of woman surveyor who went into it because she was from a family deeply committed to social service with a liberal non-conformist background (The Guardian, Obituary, 1.4.1989). In one sense she was what might disparagingly be called a 'lady bountiful' who was now permitted to work from within the profession, and would previously have done similar work outside the profession. She was also a 'new woman' or even a bourgeois feminist, who wanted her own career. Interestingly she was often seen as "only a housing manager" although she undertook the full range of professional work. On her retirement 50 years later she stated that she regretted that more women did not follow her example by going into surveying (c/s January 1973, Vol 105, No. 7:342) although she was glad that many became housing managers. She clearly could 'see it all', but ironically many modern women surveyors who would have benefitted from
her wisdom, barely knew of her existence: she had become 'invisible' in her own lifetime.

The surveyors responded rapidly to this 'influx' of women: there must have been at least twenty on their way to qualifying by the late 1920s, and a male membership of 5,305 in 1926 (Thompson, 1968: 341). In 1931 the Institution established a special certificate for women housing managers, an occupation which according to Thompson, had only developed as a distinct profession since 1919 (Thompson, 1968: 318). What a coincidence! Thus women were diverted away from the main pitch by the creation of a special niche for them, a tactic which is still being played out within the tangled web of surveying to determine the gender demarcations within the profession (a meso level tactic on the diagram). Housing manager members were not counted as full members of the RICS, and their names did not appear in the Year Book. Of course it is not true to say that the housing profession had not existed prior to 1919, nor to infer that it is somehow softer and more feminine, as similar technical and estate management skills are required as for 'ordinary' surveying.

A minute core of women was now established inside the landed professions which may have given women a marginally greater advantage than they had outside the professions. It should not be forgotten that in the Twenties, the 'new woman' might be actively involved in social reform and political activity without necessarily thinking in terms of personal success or professional status (Perry, 1987: xii). Professional women were considered twice as eligible, because of their qualifications, to resume what was seen as the traditional and acceptable 'ladylike' role of educated ladies, sitting on committees
on matters related to social reform. Irene was an active member in the war-time study group on the condition of 'slum dwellers' made between 1939-42 (WGPW, 1943). Her efforts and much of the data were totally forgotten. She implied in her correspondence that if men had done it, it would have been seen as one of the great surveys of our time.

A Digression Into Housing Management

Far from women only recently entering the landed professions as a result of being given greater rights and encouragement by men, in the case of housing, women have lost what was previously a strong presence as a result of being pushed down/out by men (compare Power, 1987). This is not a contradiction, as men can encourage more women to enter a profession and recruit more female students, whilst at the same time blocking the progress of women already in the profession, creating a clear vertical gender division. This is why one has to be very careful to consider the qualitative implications of apparent quantitative improvements.

Housing management is only a small, but growing section within the RICS. Housing managers also qualify through the Institute of Housing, a smaller and less prestigious body (Appendix II). I am indebted to the help of the Institute of Housing and to Mary Smith (1989), a past president, for elements of the following account, although it should not necessarily be seen as reflecting their views. Octavia Hill is generally accepted as the founder of modern housing management (Hill, 1956). In 1865 she took over some run down houses in Marylebone, and improved and subsequently managed them. She worked on the principle that people and their homes could not be dealt with
separately. She believed that landlord and tenant should respect each other's rights and have moral duties to each other. A weekly collection of rents by trained women housing managers gave them the chance to get to know their tenants and their problems. Older women have told me that as men took over housing management they lost this personal touch and tended to deal with the impersonals of buildings and budgets to the detriment of the tenants.

In 1916 the Association of Women Housing Workers was founded, and was later renamed the Association of Women House Property Managers. In 1927 the first posts of Women Housing managers in local government were established, but already men were becoming more interested in the area. State intervention in Housing was changing the nature of housing management making it a major bureaucratic (male) function which of course men entered at a 'higher' level. In 1932 the Society of Women Housing Estate Managers was formed, the word estate being dropped in 1937. In 1948, a few men were admitted, and it became known just as the Society of Housing Managers, although it was still predominantly women.

In 1931 local government officers (mainly male) who were often without any formal training formed their own Institute of Housing quite separately and made no attempt to join the women's organisation. They administered the increasing levels of state intervention in housing (as against charitable private initiatives) allegedly on behalf of the working class which was chiefly defined by men as consisting of other men; the 1919 Housing Act specifically aimed at providing "Homes for Heroes" (Swenarton, 1981). The Healing Committee report (1939) on surveying education (the first of the big reports to be produced by
the RICS on the subject) stressed the need for special housing manager surveyors and construed these in a male form, as if the previous history and experience of women housing managers had never existed. In 1965 the Institute of Housing (male) and the Society of Housing Managers (female) amalgamated to form the Institute of Housing Managers. In 1974 this became the plain Institute of Housing. The male left effectively recreated 'Housing', seeing it as an area that needed rescuing from its reformist roots, and the influence of 'lady bountifuls'. Women housing managers have told me that such men often appeared to despise existing women housing managers, whilst pretending that they themselves were radical and in favour of opening the profession up to women. In reality many of the women saw themselves as far more radical than what were, to them, rather 'conservative' neo-marxian men.

Control over the Built Environment

State intervention gave men the power, that private practice never had, to impose their ideas on a massive scale on behalf of 'the people'. The dawn of the twentieth century had brought a new enthusiasm to create a future based on technology and science, and to sweep away the apparent clutter of the past (Pevsner, 1970). This led to a wave of new architectural movements such as futurism, and functionalism, which manifested themselves in the design of high rise buildings especially multi-storey blocks of apartments for the working classes. Individualism and private ownership were seen as regressive, and housing was to consist of factory produced units built for maximum efficiency. For example, Le Corbusier is infamous for his statement, "a house is a machine for living in", which, as many women
have commented, could have only been said by an elderly bachelor who had no idea how ordinary people lived (Ravetz, 1980).

The interwar period was one of expansive urban growth, in particular the spread of semi-detached suburbia. Quite apart from the 'real' surveyors there was great opportunity for estate agency and a whole proliferation of quasi-professional chaps in 'property' who might have felt no need to go on and become full professionals. There was plenty of spare capacity in the market and no need for exclusionary mechanisms to restrict entry.

The local estate agent was arguably more in touch with local need than the distant higher status surveyor. Increased formalisation of the education of surveyors and growing professionalisation isolated them from the community they served. These were issues of status and demarcation of work among men, which nevertheless had disastrous effects for women as consumers of the built environment. The track record on housing of the state and its experts, in disregarding the needs of women, might be one reason why many women prefer the private sector (although private and public sector are arguably two sides of the same patriarchal coin). Many would say that the small local builder or maligned speculative developer of the suburbs went in for more direct consultation with his future residents, because he was local, and also because he had to please his clients or they wouldn't buy his property. Significantly many such builders lived in the same type of house in the same street as their buyers, which is something the modern architect seldom does.
Post War Reconstruction

Following the second world war the new Labour government introduced a programme of post war reconstruction, in which construction was the operative word. Emphasis was put on planning both the economy and the built environment, supposedly on behalf of the working class. One would have imagined that the private sector orientated conservative surveyors would have been up in arms. Not a bit of it! As the main landed profession, they threw themselves into the task of implementing the policies, of what they no doubt saw as an unacceptably socialist government, with complete dedication and professional neutrality. They did well out of it too, either as government employees or as the advisors of private clients seeking to evade the effects of post war reconstruction on their land and property.

Most of the post war planners were originally surveyors or architects (Marcus, 1971; Burke, 1980). Many more surveyors than today were working in the public sector. Even in the late Sixties over 40% of surveyors were to be found there (Thompson, 1968: 350) compared with less than 20% today. They seemed genuinely enthusiastic about many of the more positive socialist aspects of town planning. The Labour government had taken much of the power away from the owners of land, and this gave the landed professionals themselves greater power to control space (in their new incarnation as 'town planners') without the hindrance of a private client or lord of the manor telling them what he wanted. (compare Orchard-Lisle, 1985 2).

The role of the surveyor in town planning continued to be a major issue throughout the post war period as evidenced by a policy
statement in which it is implied that surveyors should take the lead (RICS, 1966). One might argue that the whole tone and direction of post war planning and the nature of post war urban development owes far more to the influence of surveyors than planners, including some of the more controversial aspects such as town centre redevelopment and shopping provision (Shepherd, 1954; Holford, 1949) and slum clearance (Macey, 1958; Trepas; 1970). Phrases such as "the speedy removal of the residents from the area will facilitate its efficient renewal" were commonplace.

Whatever the motives of these surveyor planners, they had little idea how the ordinary woman or man lived, and they felt much happier designing spatial solutions (Keeble, 1956) than worrying themselves with the complexities of human beings. However surveyors were at their most enlightened and liberal in the post war years. I was amazed to find articles in the immediate post war surveyors' journals that in quite a matter of fact way assumed that nurseries (Chapman, 1948: 219) for working women would be an integral part of new residential area plans. None of the asocial commercialism of the present day is in evidence in the immediate post war period (Lane, 1958).

The fatal mix of a desire to plan for society on the basis of scientific rational methods, combined with badly informed men with power to make decisions for others, was to disadvantage women again and again. In the New Towns planners using the neighbourhood unit concept "for the community", often put shops at the opposite end of the estate from the schools and then zoned the factories on the outskirts. All this involved a considerable amount of additional walking for many women, as they rushed to and from work to collect
their children from schools whose hours were seen as most inconvenient and impractical by many working families. There seemed to be a hypocritical conflict of attitudes towards women. The housing design was based on a watered down version of middle class suburban estates where women were not expected to work, but at the same time industrialists were often attracted to the New Towns by the promise of cheap flexible part-time female labour. Such policies are nowadays criticised by urban feminists, as in a paper by Judy Attfield entitled “Inside Pram Town” (1989) in which images of “mud and babies everywhere” graphically describe the environment. As had been evidenced in the war effort, men did know how to plan more sympathetically for the needs of working women, but they chose no longer to do so (Wekerle et al, 1980).

Whether these utopian ideals were purely abstract academic concepts for special occasions is another matter, as surveyors still had very traditional ideas about women and other lesser beings. The British Empire was in the final throes of decline following the war and there was considerable concern about handing the colonies back to the ‘natives’. Referring to the creation of a local branch of the RICS a colonial surveyor commented “when it started it had been necessary to admit all and sundry including the coloured man who costed a few plans and so on” (Langdon, 1949: 203). Such attitudes were to be replicated in Britain in the future. A group of male white students were overheard saying only recently regards a black student, “how did he get here? Who let him in?”.

There have been a few attempts to study retrospectively some of the most well known plans of the twentieth century to find out what they
have to say about women, which frankly is a matter of looking for what is not there (Morris, 1986; Roberts, 1988). Both general feminist commentators (Wilson, 1980) and urban feminists (WGSG, 1984: 58) regret that an opportunity was lost in not accommodating the needs of women as well as men in post war reconstruction. There was a gradual upturn of the commercial market in the Fifties rising to the crescendo of the Property Boom (Marriott, 1967) of the late Sixties and early Seventies. In spite of the vast increase of town planning powers, the private sector was able to carry out many town centre redevelopment schemes with the full blessing of the planners and indeed sometimes in partnership with them.

Town planning problems were defined in terms of land, not people. If the planners and geographers saw suburbanisation as a problem it was not from the perspective of women, but because it constituted what they saw as urban sprawl (Hall, 1977). Town planning by its very nature is much better with dealing with problems when they are presented as matters related to land rather than people (Morgan and Nott, 1988: 139). Whether one should see this as part of some intentional conspiracy, or the result of the spatial background of the planners who conceived the post war system, it has meant that many women planners and other interest groups have had difficulty packaging their policies, which are effectively social and people-related, into land use plans that will stand the test of legal appeal (Taylor, 1988).

Women had been allowed into several areas of public service surveying during the War, many unqualified women had been effectively carrying out professional work, but now of course the men wanted 'their' jobs back. Some areas had remained male territory and were closely guarded
until such a time as the men had reason to change their minds. It was commented of the Ordnance Survey that "women should be eligible to sit for these examinations, although in view of physical and other limitations there will be a limit to the number who can be so employed at any one time" (c/s, October, 1950, Vol.XXX, Part IV:288) (an illogical muddle of time limited by numbers). Nowadays in contrast, women are increasingly sent out to do the real surveying whilst men stay in the office and play with their computerised plotter. I spent a day on site, with a woman land surveyor triangulating, and thought how quiet and unassuming she was doing this highly skilled work, the very activity which originally had been the basis of the surveyors' claim to professional monopoly. But for her it brought no status: nowadays one 'only' needs a non-degree qualification to do this work. The skill has not diminished, only its social construction, and its gender and class associations had changed. Clearly here culture rather than biology is at work. This is a theme which may be encapsulated in the phrase "if men do something, it's wonderful, if women do the same thing, it's nothing" (p), which was expressed frequently by many women surveyors in discussion of a whole range of professional issues. In fact, men have told me some men were actually entering surveying after the war in order to escape the opportunity to be real men under National Service - draft dodging in fact (c/s, November, 1948, Vol.XXXVIII, Part V:247).

The Sixties

Planning in the Sixties was based on assumptions of economic growth, increased affluence and rising car ownership. Many women still do not have cars, and cities planned for them caused great inconvenience for
pedestrians and users of public transport, thus adding fuel to the fire of the emerging feminist movement for women to see themselves as a group that was discriminated against by the car borne white middle class male planner. There was growing dissatisfaction with the policies of the planners from a variety of directions. People were organising community groups in protest against their houses being demolished to make way for urban motorways and car parks to get the increasing number of suburban commuters to their offices. Planning and the private sector went hand in hand. The Sixties was a period of commercial property boom (Marriott, 1967) and the surveying profession expanded accordingly. Paradoxically poverty and unemployment were re-emerging in spite of the Welfare state especially in the area that came to be known as the Inner City (some said they never went away, e.g. Coates and Silburn, 1970).

The 1971 Town and Country Planning Act introduced a new type of development plan which was based on presenting high level goals in the form of an abstract policy statement illustrated by diagrammatic non-site specific plans which were produced on a computer grid layout. Paradoxically the same act required a greater level of public participation as "planning is for people" (whether that included women is open to debate) (Broady, 1968; Skeffington, 1969).

Development of Surveying Education

The growth in entrants to surveying education and practice, is a reflection, if not a result of these changes in the land use and development situation (another link between space and the surveying column in the model). In 1930 the Surveyors Institution changed its
name to the Chartered Surveyors Institution (CSI) and the term 'chartered surveyor' was more commonly used, supposedly reflecting a rise in status. It remained the CSI until 1946 when it took on its present nomenclature of RICS when the prefix 'Royal' was granted to the Institution (Thompson, 1968:333) at which time the membership totalled 7,805 (Thompson, 1968:341). Women's true position in the interwar years may be gauged by such gems as the fact that a major discussion took place amongst surveyors on 'whether the presence of ladies was consonant with the dignity of professional gatherings and social events' (Thompson, 1968:255). One cannot generalise as, for example, the first women quantity surveyor was entrusted with doing the Bill of Quantities for the Cenotaph (c/s November 1968, Vol.101, No.5:250) without apparently defiling it, but then her father was a surveyor. I found less than 15 women members (excluding housing managers) in the 1939 "Register" (RICS Year Book) amongst a total membership of 7,000 (Thompson, 1968:341). Both women and men started on the same salary in public service, but men's increments went up much higher (Willis, 1946:47 et seq), and no doubt it was presumed that women would leave. Men, then as now, got additional increments and pension rights for war service, but women received no pay for years taken in creating life.

Surveying education was becoming less amateur. In 1913 the final (and only) examination had been divided into two, to create an intermediate and final level. In 1932 the intermediate level split again, thus making three levels. The Healing Committee (1939) rationalised the examinations into three equally spaced stages, and stated that candidates must have four years practical experience, and must be student members of the Institution prior to sitting the
examinations (Thompson, 1968: 189). In 1939 there were 300 student members (compared with around 7,000 full members), but as a result of this new rule, student numbers rapidly increased to 2,000 in the war years, rising to 5,000 in the 1950's (compared with 10,079 full members in 1951, Thompson, 1968: 341).

Education was a key theme of post war reconstruction as evidenced in the 1944 Education Act. There was a concern for efficiency, and the raising of standards in professional education (Langdon, 1949). The Schuster Report on Qualifications for Planners (1950) was to provide guidelines for surveying education, although its original intention was to set up a new range of separate town planning courses, as attempts to implement the post war legislation had showed up a massive shortage of educated manpower. Perhaps the Labour government had realised too late that they it was foolish to use conservative orientated surveyors to carry out Labour land-use policy: a new landed profession of 'left wing' planners had to be created. Meanwhile many keen women who had produced plans in the war were being sent back to the home, or to the drawing office to resume their previous life as 'tracers' (as women draughtpersons used to be called). As Colin Ward (1987) comments, "she was resented because she knew too much about other people's jobs".

Although surveyors became more concerned about education in the post war years they still wanted to have it both ways. The Watson Report (1950) on the "Educational Policy of the RICS" said that full-time education should be encouraged, but that the majority would continue to qualify part-time. It was not part of the subculture of surveying to be a full-time student; the avoidance of, not the participation in
education confirmed subcultural values. The Wells Report (1960) welcomed the higher education into surveying, but seemed to imagine that the main route would be part-time and non university. It includes the statement "the occasion will demand men and women (my emphasis) who are not only able practical surveyors, but also capable of original imaginative thinking". This is the first report to acknowledge the existence of women surveyors. It also introduced the idea of 'CPD' (continuing professional development). Not only should surveyors undertake an approved course of study but they should go on learning in practice, continuously updating their practical knowledge. This may be interpreted as an additional modern exclusionary mechanism, that women might particularly encounter as a problem; or as a form of educational inflation; or more benevolently as the last trace of the surveyors trying to put back their traditional emphasis on practical experience in a world that prized formal education above practical experience.

Student members reached over 7,000 in the Sixties (of which less than half were taking part-time courses). This represented well over a 2:1 ratio of members to students (for example there were 15,557 full members in 1961 and 18,290 in 1966, Thompson, 1968:341), reflecting the growth required to 'man' the post war property boom. However, numbers of part-time students gradually declined relative to full-time courses, although the overall numbers of students in both sectors increased. Numbers of students virtually doubled between 1969-79, in which year there were 14,400 students, compared 40,818 full members which had also doubled in the period too (Site Report, 1980).
Passing the examinations does not appear to have been as important as being seen to be taking them whilst in employment as a trainee surveyor. The Brett-Jones Report (1978) states that there was only on average a 40% pass rate between 1945-77, and before the war the figure was even lower. Credentialisation of itself was not the key to professional power. As one bumptious man told me, "Education, you can take it or leave it, it doesn't mean anything". Right up until the Seventies, education was still only seen as an aid to passing examinations, and not as a valuable experience in its own right, and many did their best to put off the evil day when they formally qualified (Millerson, 1964:141). Education was certainly not a major factor in either conferring or confirming subcultural values or in career advancement. The Institution itself seemed to be of limited importance being a loose confederation with only a monthly journal. The professional office was still the centre of the subculture, therefore it is hardly suprising that nowadays women find that although apparent equality has occurred in education, this does not matter relatively speaking, because the true professional socialisation process occurs in the surveyors' own domain within the office.

In 1960 only 10% of applicants had A levels, and 75% were qualifying by correspondence. It was not until 1983 that the situation was reversed when two thirds of surveyors were qualifying by full-time courses. Surveyors were not 'worse' than other professional groups, as in the past many other professional groups such as accountants, lawyers, architects and town planners had similar entry requirements and were articulated straight from school. What mattered was whether one had the contacts to get into the right office. It was not uncommon for
people to pay to get in, and to receive no salary for several years. College education did not have the same importance as in North America, indeed to be 'academic' might be a disqualification. Perhaps women (and working class meritocratic men) were playing the wrong ball game in projecting their assumptions about the importance of qualifications and grades onto the question of eligibility for the professions. Whilst men surveyors wanted less education, women in society wanted more. Obviously the power did not lie in education.

From about 1967 everything changes. A whole issue of the Chartered Surveyor is devoted to education in June 1967 (c/s. Vol.99, No.12, 1967), to be followed by others (e.g. French, 1969). The Sixties was the age of the white heat of technology with a Labour government intent on creating an education system to match (Robbins, 1963). Dull old feudal surveying, chameleon-like as ever (Teale, 1985: 4), now presented itself as a worthy case for special treatment, as a 'technological' profession, in spite of having long since lost many of its associations with surveying science. The one exception to this was quantity surveying which had grown out of all recognition in the Sixties as a result of the property boom with its emphasis on high rise construction for which such expertise was particularly relevant. The new technological 'front' was as much a barrier to women as the old landed gentlemen's club image.

There were a series of secondary reports that had a bearing on surveying education, including Hennicker Heaton (1964) on day release, and Pilkington (1966) on technical college resources, culminating in the 1966 White Paper proposing the creation of the polytechnics (Ministry of Education, 1966). The RICS itself produced a series of
reports, including the Eve Report (1967) which suggested that in the future full-time education would be the normal route to qualification. It also laid the foundation for the "TPC" (test of professional competence) which all surveyors are nowadays required to take after a period in practice before they can become fully qualified. The 1970 Percy Report on higher technological education defined the future parameters for surveying education further, and in 1972 the new Polytechnics were created (Robinson, 1968) as the institutions where the expansion of education was to take place. Town planning education was also being revamped from a somewhat different ideological perspective. The separation of planning and surveying was to have major implications regards surveyors' influence on "what is built". Surveyors nowadays seem to assume that the deficiencies in surveying regards a lack of social concern should be picked up and rectified by planners at a later stage in the development process freeing surveyors from any need to worry about the social implications of their work, so they can concentrate on profit making. Planning was to become the compensatory profession doing the "emotional housework" that surveying was too busy to bother with, i.e. a female role to surveying's male image? (notwithstanding the fact that about 97% of planners were male in those days, and today the figure hovers around 85%).

I am indebted to the work of a student from the early Seventies who chose the topic of surveying education as his final year dissertation topic (Davies, 1972). Interestingly he went on to become the Chief Housing Manager of a large metropolitan authority and seemed to be much more socially aware than the average surveyor; perhaps he too had misgivings about the subculture. Davies even investigated the numbers
of women students on surveying courses at that time, which he found to be about 1-3% depending on the course. I am also indebted to one of my own students who 15 years later chose a similar topic (Wareing, 1986). These were the only two to choose this topic in the history of the college, showing again that surveyors have little interest in their own education.

Only about 1% of surveyors had cognate degrees in 1928, and it is estimated 2% had degrees in other subjects, and most of the rest were doing CEM courses, local evening classes, or studying on their own. Even by 1955 only 10% had cognate degrees rising to 12% in 1963, and then rapidly to 67% in 1985 and now reaching over 75% (Wareing, 1986) as a result of the changes in higher education that occurred in the Sixties (c/s, Vol.4, No.2:101, 14.7.83). Full-time surveying students comprised 50 in 1945, 304 in 1950, and 450 in 1967 (Thompson, 1968:221) but there were also 3,744 attending part-time courses (Davies, 1972:26) plus many doing correspondence courses, or "nothing much". In 1966 the RICS approved seven new degree courses and nine diplomas (a degree nomenclature was less common then) in General Practice surveying, in nine different colleges; the number of colleges where new courses were run rising to 12 in 1968, and to 14 in 1972. Including pre 1960's courses, by 1972 there were in total 19 colleges offering a range of full-time degrees and diplomas in all aspects of surveying, and many more offering part-time routes (Davies, 1972) (c/s, Vol.101, No,11:550, May 1969). Several of these new courses were offering CNAA degrees (Lane, 1975) being located in the first 13 new Polytechnics created in 1972.
There are now 36 colleges in Great Britain (c/s, Vol. 4, No. 9: 418, 1.9.87; RICS, 1987) offering approximately 90 full-time courses (including sandwich ones) counting all the surveying specialisms; with over 24 of these courses being General Practice and Estate Management courses (RICS, 1988). Of the 36 colleges, only 10 are universities, 24 are Polytechnics (or equivalent), and two are military establishments (80% of all surveying education takes place in Polytechnics). In 1985 there were 1,550 students in universities, 6,400 in polytechnics, and 1,400 part-time students mainly in technical colleges and some polytechnics, and 4,000 direct students (mainly correspondence with the College of Estate Management, including many retake students from a wide range of age groups, Wareing, 1986).

The establishment of this vastly expanded system was to set the framework for the future qualitative development of surveying education. It was not the intention to specifically benefit women, indeed the purpose of the Polytechnics was originally to benefit working class boys (Whitburn, 1976). In fact the two groups that benefitted were middle class women, and upper middle class males who had failed to get into university. Many of the principles established by the CNAA and the new polytechnic courses were to be echoed in the Brett-Jones Report, "Review of Educational Policy" (1978). The following interesting statement is found in this document, Para 2.5 states, "perhaps the most difficult problem is the conflict between the profession's need to provide for its future manpower requirements at partner and principal level as against the employer's need for immediate technical assistance in his office". Was this a prophecy regards the future male/ female division in the profession? There is
also a fascinating diagram (Brett Jones, 1978: 23) which is entitled, "What sort of profession do we want?" which indicates that the profession is looking for "a fair share of the 'top' people" which may mean what I call "the right type" in my conceptual model at the meso level.

Footnotes

1 Battersby's presidential address (1970), includes a quote from Macaulay's "Lays of Ancient Rome", which 'explains' how apparently incompatible men from different sub-universes in surveying can work as a patriarchal team.

"Then none was for a party
Then all were for the state
And great men helped the poor
And the poor men loved the great
Then lands were fairly portioned
Then spoils were fairly spoiled
The Romans were like brothers
In the brave days of old".

2 Interestingly Orchard-Lisle (1985: 594) states in his presidential address that "perhaps the most telling remark was made to me by a leading socialist: 'we are both opposed to free enterprise' ". 
CHAPTER VII - WOMEN'S PRESENCE 1945 TO THE PRESENT

The Post-War Period

Little appeared to be happening regards women and surveying in the immediate post-war period. The journals included occasional references to women secretaries who were retiring, or who had put in an extra effort (e.g., "Mrs Montgomery has done it again," c/s, Vol. 94, No. 7: 384, January, 1962). The only other references to women included the rare event of the announcement of a new female member, (c/s, Vol. XXVIII, Part IX: 507, March 1949) and the birth of another child to the Queen (c/s, Vol. 92, No. 10: 518, April 1960) who incidentally must be the most mentioned woman. About every ten years a woman housing manager wrote an article (Alford, 1954; Ward, 1963; Heath, 1963) reinforcing woman's 'natural' role. Perusing the journals, warning bells were now sounding about articles which did not mention women but whose suggested policies were to have implications for women and the built environment in the future. An article on shopping (Fenton-Jones, 1962: 79) contains the prophetic quote (innocuous but full of 'power') "as our car borne and refrigerator-owning democracy becomes a reality, the chain store and supermarket will increase their percentage of total trade. As a result ... the housewife will shop less frequently". It describes the expected future growth of what nowadays we would call out of town centres and shopping malls. Men are interested in shopping, but from a different perspective, indeed they play a major role in defining the spatial parameters of the social construction of the housewife.
The only other women who appeared were those in the government who might be seen as having the status of honorary men. Dame Evelyn Sharp was elected an honorary member in 1966 (c/s, Vol 98, No 10:516, April 1966); and Barbara Castle, then Minister of Transport, wrote the first non housing article by a woman in the history of the journal; on urban transport (Castle, 1967). Ordinary women and children were seldom visible within the journals with some exceptions (c/s, Vol.97, No.8:393, February, 1965; c/s, Vol.99, No.9:476, March, 1967) in which they were shown as council tenants (message, women are poor and a problem). Contrast this with the 'uncharacteristic' photograph on the cover of the July 1968 issue, of two Chelsea pensioners and a 'nicely dressed' boy and girl, standing outside the RICS HQ; message, good children are cute and middle class (Vol.101, No.1). A matter of concern to many women was the proposal for turnstiles in women's lavatories in 1963 (Vallance, 1979:89). This issue actually got a mention, albeit non-committed (c/s, Vol.98, No.4:191, October, 1963). The provision of public lavatories has continued to be seen as a serious town planning issue by urban feminists.

As stated earlier, the profession continued to grow in the Sixties in response to the property boom, but this did not yet require the recruitment of women. There were enough grammar school boys around. I had intended to talk to women who were representative of those entering surveying within each decade of the present century, but found this presented difficulties. Although I had contacts for the early years, and a progressive increase in contacts over the post war years up to the present day, I found there was a distinct 'valley' from the late Twenties to early Sixties. With the exception of the war years, middle class women were encouraged to put their domestic duties
first, and careers last. However I have come across a few women who went into the profession in the Fifties and early Sixties. One might argue that this was the period of the token woman who had to be very high status (or very low status?) or very unusual to be accepted, and that completely different rules operated for them, than for the women entering in larger numbers today. I tried to contact one such woman who is now one of the most senior women in public service. Her male deputy answered the phone and declared to me (thinking I was a secretary), "you don't want to talk to her she's an old dragon. She was only a typist you know before she qualified" (v).

The Sixties and the New Era

The mid-Sixties were the calm before the storm, and all seemed 'normal'. The journal, reporting on the annual conference, stated "the ladies attending the conference had a programme of their own. A demonstration of skin care and make up was also arranged at a large department store" (c/s, Vol. 99, No. 3: 159, September, 1966). The journals continue to include advertisements such as one in the October edition, 1967 (c/s, Vol 100, No. 4 :iii) with a female looking provocatively at a theodolite. Unlike some of the other construction industry journals, which wrapped female forms around every building component advertised, it would seem that such crude sexism was not part of the surveying subculture. Surveyors like to present a more sophisticated image; in public at least.

The RICS must have been vaguely aware that the situation might be different for women entering the profession in other countries both
through FIG (the International Federation of Surveyors) and other 'hints' such from a letter from a man in 1964 stating that the Chinese had put a picture of a woman surveyor (or is she an assistant?) on a stamp (c/s, Vol 96, No. 12:619, June, 1964). This no doubt reinforced in men's minds myths about "commie women" (c), and did more for stamp collecting than it did for women. I well remember being told by male students back in 1967 that I would become like a Russian woman lumberjack if I studied town planning.

In 1967 things hot up, possibly as a result of the beginnings of the second wave of feminism and because women housing managers were having to strike back in view of their losing ground as explained earlier. A letter appeared from Mary Smith (1967) "Even brighter girls" in which she put the case for women surveyors and describes contemporary attitudes, "surveyors nodding and winking at the mere mention of women, and no doubt falling off ladders at the flick of a mini-skirt". Her letter followed a somewhat patronising, yet favourable article (Quoin, 1967: 227). This is one of the first articles by a man on women surveyors, which incidentally embodied the 'tolerant but not enthusiastic' stance in the matter to be adopted by surveyors in the following years: until the present volte face, brought on by the 'man'power crisis.

A few women were beginning to enter the new surveying courses within the Polytechnics. A letter (Hilland, 1969: 619) expressed concern about "vocational dead ends being foisted on boys and girls" and the need to develop a future officer core within the profession (presumably drawn from both boys and girls). However, with the creation of new town planning courses at the same time, it is noticeable that several
surveyor's daughters took this option instead, although it can hardly be seen as more feminine. I have also met women whose fathers were surveyors and whose brothers became surveyors, whilst they went off to do Arts degrees, but their daughters are now entering surveying, who said "It skipped a generation", (p) the ultimate in deferred gratification.

At a time when less than 0.5% of surveyors were women, and men tended to play down the issue as of no importance, the RICS celebrated its Centenary, and produced a film of a day in the life of a surveyor (c/s, Vol.100, No.12:633, June 1968 - Centenary Issue) which belied their true cunning, or perhaps ignorance (Goffman, 1969). The film features five partners, including one woman housing manager who was portrayed as an equal partner within the practice, i.e. 20% women as if it were the most normal thing in the world. Meanwhile the emphasis, prevalent in the profession at the time, on quantification and the use of mathematical models adversely affected the likelihood of women's issues being taken into account in policy making as they were "not objective enough" (c). One article on shopping is based on a discussion of 'user requirements', the users being defined as developers, tenants, retailers and distributors and not shoppers (Edgson, 1969:378). Surveyors can be aware of the lack of women in the profession, but at the same time never think of the implications for women of their policies and professional decisions. This is an important sensitising concept which I observed many times. A more realistic view of women in the RICS was shown in a special edition which (unusually) contained pages of photographs of the women office staff who kept the edifice running (c/s, Vol.103, No.1, July, 1970).
A letter appeared in 1973 entitled "Plumbing the depths" (Ellis, 1973) marking a historic watershed for women. Separate female members lavatories were introduced at the RICS headquarters. Space matters. Many women impressed on me the importance of this event. Then, in 1976 the new President of the RICS referred to women in his presidential address for the first time, asking why there were not more women in the profession "in these days of equality" (Franklin, 1976), almost implying it was their fault. This led to a series of letters in the subsequent journals. Joyce Snow (1976) wrote a letter on women in the profession, and the JO News (the JO is the Junior Organisation of the RICS for surveyors under 33 years of age) featured an item entitled "to the lassies" from a well-intentioned Scottish male surveyor (Allen, 1977). Some of the letters were quite feminist but not radically so (Sousby 1977). I do not consider that the age of the bourgeois feminist had crystallised yet, as it was to 10 years later. Women surveyors then were more likely to espouse a vague liberal feminism, or like their descendents simply didn't think about 'that sort of thing'. After years of silence, surveyors were suddenly discussing such issues in their journal, something that neither the planners nor the architects were to do for many years. Judging by the titles given to the women's articles and letters (as will be illustrated below) some saw such writings as the source of titillation, rather than as serious matters for the consideration of the profession.

There was by now a very small number of women entering surveying education and practice. Such women were encouraged to believe that
they weren't any different, and that it was the same and fair for all. Women were likely to be told that they were very lucky to be there, and that everything was wonderful. I remember being told this as a student and was made to feel really inadequate and 'immature' for expressing dissatisfaction. Some women didn't even survive and dropped out. Nowadays young women look back on the Sixties as the Dark Ages and one is encouraged to say how bad it was. In the Seventies, many men surveyors still saw individual women surveyors and planners as a great "oddity" or "novelty" (sic), and put into action 'the token woman approach' to deal with the problem. Jennifer Ellis, who confessed that she was not "women's lib" but that her surveyor father was (Vol. 111, No. 11: 78, October, 1978) was elected as the first woman chairman of the JO. She then produced an excruciating series in the journal entitled Jennifer's Diary, throughout the year 1978-9, which was unlike the writings of any other person who had held that office before or since. She was sent on a grand public relations tour of the branches, "like Princess Di" (p). The diary consisted of descriptions of what she did, who she met, and most of all what she ate and drank. It ended with an article in July, 1979 (c/s, Vol. 111, No. 12: 24 of supplement) in which she confessed that now she would have more time to concentrate on one of her favourite hobbies "watching cricket".

Her rise to fame was not part of the feminist movement as such, and had little effect on altering land use policy or attitudes to women within the profession. However she undoubtedly was a feminist of sorts. During her earlier career she experienced much 'teasing' as evidenced by comments directed at her before her rise to power (c/s, Vol. 110:331, May 1978) concerning a "talent show" and "shapely ladies parading in bikinis", which despite appearances was an item
about professional matters. Today the Diary is seen by those involved as just "a bit of froth", and "frankly best forgotten" (v). It takes several years to see the significance of events and 'opportunities' to judge whether they were to the advantage of women and their careers, or whether apparent fame and progress enforced women's 'different' role within the profession, and reduced eligibility for further promotion.

The Eighties

As the profession expanded in response to the enterprise culture of the Eighties, it became necessary to bring in more women, rather than recruit men of another social class. The journal states that in 1980 the percentage of female membership had now reached 1% representing a 100% increase over twenty years (c/s, Vol.112, No.9:8, supplement, April,1980). Now it is just over 3% (1989), representing an even greater increase in less than nine years. In comparison there were 12,690 fully qualified surveyors in 1955 (Thompson,1968:349); 18,290 in 1966 (Thompson:341); and 40,818 in 1979 (Site Report,1980:34) approximately 56,910 on the last day of 1986 (RICS, Records Office) and nearly 60,000 in 1989 (Appendix I). This also represents a considerable growth, but not at the same rate as the increase of women in the profession.

By 1986 there were 20,666 students and probationers; as against the 56,910 full members of whom 13,644 were under the age of 33 (RICS Records Office, 23/12/86). There were 2,745 females of all categories (students and full members) at the end of 1985, which rose to 3,581 by the end of 1986, and 4703 (out of a total membership of 81,602) in
1989, illustrating the rate of growth. Of these 4703, 1475 were students and 1370 probationers, leaving 1847 who were full members (plus 11 'others') of which 1250 were under 33 years of age, i.e. only 606 were older women surveyors (Appendix I). In the past many women who entered surveying subsequently left owing to problems of childcare and lack of career satisfaction, but nowadays this trend is slowing down and more women are determined to work all their lives. There does not seem to be a clear 're-entry' age as such, rather a gradual build-up of more women working all the way through, but some seeking to return (with mixed results) in their late thirties (compare JO, 1986: 13 and Elston, 1980).

More women were also going into the more technological areas of surveying. There is an announcement of the first woman hydrographic surveyor headed "First Sea Lady" (as against Sea Lord) (c/s, Vol.112, No.11: 8 of the supplement, June, 1980). I was able to interview the 'Lady' in question and found that this small announcement belied a lifetime of personal achievement, and a most interesting and unusual series of fortunate 'breaks' that enabled her to get into what is even now an almost womanless area. Many women surveyors, like myself believe strongly in the serendipity factor in all of their lives. Other women 'appeared to appear' in photographs in quite macho, 'hard-hat' roles (c/s, Vol.7, No.12: 822, 221.6.84) but as stated in chapter VII such apparitions are not always trustworthy. I suspect that some men find the macho woman a 'turn on', although many feminists for quite different reasons also believe in the importance of women in technology. About this time the 'woman engineer syndrome' became almost cultic in its popularity, but whether it really achieved anything for women in general is another question.
The first woman chairman of a regional branch of the rural land agency division is announced (c/s, Vol. 7, No. 10: 676, 7.6.84), one of several 'first women'. As one such woman confided, "they only put the first one in, they don't bother after that especially if the women continue to outdo the men". At least these appointments established to other women alternative possible role models within the profession in areas and levels where women had not previously entered. Such women often had obstacles put in their way in making these achievements, but it is often presented as if the RICS was on their side all the time. However in fairness, some men in the technological areas of surveying do encourage women in their careers.

The Lionesses was created at the end of the 1970's (an unfortunate name which led to endless comments about "red meat" etc.) which later became known as the women surveyors association. There was much debate as to which "ladies" were entitled to wear the badge of the Lionesses (c/s, Vol. 113, No. 1: 3, August, 1980; and c/s Vol. 113, No. 2: 130, September, 1980). Some surveyors' wives and girl friends were wearing it having been given the badge by men surveyors. This was considered an affront to the hard earned status of women surveyors. Quite a strong article appeared on 'what it's like to be a woman surveyor' (Smyth, 1980), which was very different from the 'how lovely it is to be a woman housing manager' article of the past. This was followed by a letter from a woman district valuer concerning surveyors' attitudes to women, which stated she had found one of the past presidents "patronising" towards women (c/s, Vol. 113: 505, February, 1981).

There was considerable discontent amongst some of the women who saw themselves as getting older, mainly because the profession had
'allowed' women to enter without, for their part, changing anything to accommodate women who wished to be women, mothers and surveyors at the same time. However said women 'put a brave face on it', and actually appeared to be rising within the profession and entering previously male preserves. Whether this is a tribute to the profession or the result of women working twice as hard is another matter, which will be discussed in later chapters. Women began to get more official recognition and posts at JO level (c/s, Vol.114:478, March, 1982). Today there are three women committee members out of a total council membership out of 108 within the RICS governing body (e/t, No.1003:12, 14.7.89). Women were appearing as writers in the journals. This began in the late Seventies with women surveyors writing articles on professional matters, such as the work of Honor Chapman in 1979 (c/s, Vol.111, No.8:302), who went on to become one of the most successful women in surveying practice. More surprising women journalists, who were not surveyors, began to take over reporting highly technical issues. A glance at any of the journals today will show the frequency of the work of one woman who became building correspondent, and another who produced articles on legal matters both in the Chartered Surveyor and the Estates Times. In 1983 a woman surveyor became assistant editor and others are following in her footsteps (c/s, Vol.2, No.4:211, 27.1.83). They are not writing or editing on their own behalf unlike in feminist journals, and may be fulfilling a highly qualified 'helpmeet role'.

For women, professional knowledge and expertise do not ensure power and partnership. They may find that it enforces their feminine role as researchers or writers within the profession. There are examples of women in the new role as writer, writing about other women in the
traditional role as housing expert; as in the case of Mira Bar Hillel's article on Alice Coleman (Bar Hillel, 1986). Alice Coleman is not a surveyor, but a geographer (and a very contentious figure, because of her book *Utopia on Trial*), but she has great sympathy from many women surveyors possibly because of her somewhat bourgeois politics (Coleman, 1985). Some women surveyors took geography as their first degree and sympathise with the plight of any woman in geography, which they see as a "worse area for women" than surveying, stating of Coleman, "if she were a man she would be a professor by now". Even women who have entered the more male-dominated technological areas may find that they are expected to perform female roles. A woman building surveyor is commissioned to study buildings for the elderly (c/s, Vol. 114: 81, August 1981). These are all examples of the channelling of women into specific roles.

Meanwhile articles written by men continue the long standing tradition of adding an element of innuendo to otherwise non-sexed matters such as planning law (c/s, Vol. 3, No. 9: 559, 9.6.83). It was explained to me by a man that, "it attracts the men's attention as they wouldn't read it otherwise". The importance of an issue can almost be judged by the level of innuendo used in presenting it. Other items in the journals give one the feeling that the profession is still "truly a league of gentlemen" (c/s, Vol. 2, No. 11: 585, 17.3.83). Women commented that if they sought to raise serious issues, they are often titled in a way that trivialises the issue, "and makes it seem dirty" (p). Matters of sex discrimination are reported under headings such as, "estate agents who preferred men" (c/s, Vol. 4, No. 12: 591, 22.9.83). However they do give space to these issues. The journal admits (c/s, Vol. 4, No. 4: 447, 1.9.83) the predominantly masculine nature of surveying in reviewing
a new book on a career in quantity surveying (Crawford, 1983). David Crawford is to be commended because he purposely used women surveyors for a third of his examples of people with successful careers in surveying. Or is he? With a minute number of women in quantity surveying at that time, it might give women a false impression. Whilst some men are aware of the issues others continue as normal. Miss World (c/s, Vol.6, No.3:113 and 168, 19.1.84) was invited to the opening of a new office in Bedford (this being only one example amongst many of a continuing obsession by some men in the property world with such women). Surveyors may not see women surveyors as being of the same species. Comments such as, "let's go and get some real women" can still be heard when men want to neuter women colleagues publicly. However there are more positive and realistic role models that appear too such as a feature on a husband and wife team of surveyors in a prestigious practice (Whelan, 1984).

By the mid Eighties, it was becoming fashionable to be a woman surveyor. The Archers radio series made one of its young women characters, "Shula", a surveying student, and as a gesture of goodwill the actress was invited to the RICS stand at a building exhibition (c/s, Vol.11, No.2:124, 12.4.85). However at the same time a story about an all women practice is covered in innuendo "ladies take off" (c/s, Vol.10, No.9:633, 7.3.85) and "ladies uncovered" (c/s, Vol.11, No.11:4, 4.4.85). Complaints are even received that Landseer, a weekly feature, is too sexist (c/s, Vol.11, No.7:456, 16.5.85), but one gets the impression that such accusations are seen as a joke. Reading back over the journals when writing this chapter, I was overwhelmed by the cumulative effect of such attitudes. Everything appears to be written for an assumed male audience, and women carry on
a serious discussion with each other, through the vehicle of the journals, in spite of the ongoing trivialisation of the issues they seek to discuss. Nevertheless particular problems for women such as the issue of doing CPD whilst bringing up a family or travelling around with a husband are discussed, albeit under headings such as "sex and the single surveyor", alongside a serious letter from a sympathetic man, the word 'feminism' being used here for the first time in the journal (c/s, Vol.11, No.12:848, 20.6.85).

"Candidate urges Lionesses to bite back" (c/s, Vol.15, No.6:508, 8.5.86) is another serious item that is treated as a joke. Nevertheless some good articles and letters find their way into the journal. In 1986 the problems of combining childrearing and surveying are discussed for the first time (Turner, 1986), and the problems of women working (Marwick, 1986) are aired further. Coming up to the present, following the Suzy Lamplugh incident in which a woman estate agent went 'missing', an article is devoted to the safety of women in the profession (Cornes and Lamplugh 1987, co-written by her mother, Diana). It would appear that the profession is taking women's needs more seriously (Greed, 1990,c). However many women feel this 'concern' is a mixed blessing as it reinforces the idea that women need special attention and cannot be sent to all the places that men can go, i.e. women, not their assailants, are the problem. It might be history repeating itself, and evidence of the beginnings of a male backlash to women's current progress, for as stated in chapter III, women have been kept out of the urban arena in the past by being told it's too dangerous for them. This might have the wider effect of excluding them from certain policy making areas too.
Challenges to Success

The profession has continued to grow in status and numbers in response to the buoyant property market, landed capital almost replacing industrial capital as a primary component of the economy. This dynamic phase of professional development is reflected in the tone of the SITE Report on Surveying in the Eighties (1980). Although many surveyors imagined that surveying was now truly a higher profession, drawing frequent analogies between the medical profession (Hanson, 1983) and surveyors as 'development doctors', others continue to express concern about the standards of surveying education ("RICS comes bottom of the class", e/t, No. 849: 9, 13. 6. 86). Whilst the enterprise culture of the Eighties has undoubtedly placed young chartered surveyors amongst the membership of the affluent yuppy culture, at the same time the deregulation of financial services and the threat of external competition by other professionals has caused surveyors to regroup and defend their territory (RICS, 1987). It is significant that the annual conference in 1986 was entitled, "Professions in Crisis: New Opportunities for Chartered Surveyors" (RICS, 1986, b). Whilst surveying education has increased tremendously, government cut backs in education and falling birth rates have given surveyors much cause to worry (Cox, 1985). If numbers drop what happens to all those educational and professional empires that are built on these figures? ... "Any significant increase in participation rates must mean a disproportionate increase in participation by one or more of the groups in society identified in the NAB Strategy Advice of 1984 - women, mature students and those without standard entry requirements" (NAB Bulletin, Autumn, 1987). The document goes on to emphasise the Government's keenness to increase
participation by women in higher education. This is not for the sake of the women, rather to maintain the jobs and existing structures of surveying. That's what women are 'for'. There are also 'threats' in the offing from NCVQ (1987).

By the time we get to the beginning of my research, women surveyors are even more strongly reflecting the ideology of the bourgeois feminist, and the enterprise culture. However some people (men) were suggesting that we are now in the post-feminist phase, and asking questions such as "Is feminism dying?". Women in the landed professions (including myself) were rather suprised at this as many of us were only just getting up steam, having come late to feminism.
CHAPTER VIII - THE EDUCATIONAL CONTEXT

Introduction

The purpose of this and the following three chapters is to paint a cultural image of surveying education and practice vis à vis women, rather than to give details of source situations, owing to the sensitive nature of the material used, but the examples used should be seen as representative of the overall situation. In places reference is made 'back' to the theoretical base (and references) presented in Part I, and incidences are highlighted which demonstrate linkages and concepts from the model.

This chapter gives an account of surveying education, emphasising the gender and class dimensions, and highlighting women's 'different' experience of the educational process. It will be seen that whilst the proportions of women in the different specialisms of surveying education reflect the general societal attitude that it is not 'nice' for women to do technology (Sharpe, 1976: 176), the situation is more complex as to the preference of individual women for specific sub-universes within the surveying subculture (Berger and Luckman, 1972).

Indications of the workings of the processes identified along the bottom line of the meso level of the model (gatekeeping, exclusion, closure, channelling, tracking); and more broadly the problems described in the literature on women and higher education (referred to in chapter II) may be begun to be seen in this chapter, and are illustrated further in chapter IX.
Methods and Reactions

Having found existing official statistics inadequate for my needs (Appendix III), I wrote to the majority of colleges that teach surveying degree courses, which as stated normally are of three years duration with some courses having, in addition, a 'sandwich' component which may range from a few months to a year depending on the specialism (Whittington, 1987). Following this, graduates must complete the TPC (test of professional competence) by two years of supervised training and experience followed by a practical test. The numbers on the mainstream full-time courses average about 50 students per specialist year group, with much smaller numbers of around 10-15 on some of the more esoteric areas (and some part-time routes), and a few instances of 150-200 students in combined first year groups in certain colleges. I asked for information on the numbers of women students past and present, and their levels of examination achievement and (where appropriate) their subsequent career progress; and also invited general comments on the topic. I received 22 useful replies in response to approximately 35 letters. Most of these contained specific data, ranging from minimal five line tables, to sheaves of information. Eventually I collected around 40 pages of tables and details on the numbers of male/female applications, entrance standards, grades, progress, numbers in classes, degree classifications and final destinations in employment. However a few colleges requested that the material should not be identified with the college of source. As stated in Appendix III, I decided not to include any detailed figures, names, or sources because of the potential sensitivity of the situation but emphasise the qualitative
implications of the quantitative situation. However I will describe
the national situation as informed by this data.

Some replies were extremely enlightening (not always in the way
intended) and reflected certain attitudes within the surveying
subculture. Some course leaders did not send me any material on
courses on which there were few women, but wrote to tell me that
"there were so few as to be insignificant" (p) (Becker et al, 1961:60).
Other departments seemed embarrassed about their low female numbers,
and wanted to know what the going rate was, before divulging their
figures. Once they were reassured that they were 'all right' they
might even boast that their numbers were slightly higher than the
average, almost as if it were a competition. Some course
administrators had a misdirected equal opportunities policy of not
recording the gender, or the first name of students (and 'Miss' was
no longer used) thus rendering the women invisible and therefore
difficult to count. The emphasis on treating everyone the 'same'
somewhat undermined my efforts. It created an atmosphere in which one
felt awkward, in drawing attention to what was portrayed as an
unimportant issue. Even CNAA (Council for National Academic Awards)
had admitted that "the question of gender has not been a matter of
comment for the (Surveying) Board" (letter 20.11.85), although it
produced a range of other fascinating figures.

One man course leader told me scathingly, "I've really no idea off the
top of my head how many women we have in the department" (v). Other
men were extremely helpful and well-intentioned, especially,
significantly, those in the technological areas of surveying. Some
men react one way and others another, parallelling the fact that
some women become feminist, others do not, and some, sadly, can best be described as 'patriarchal women', showing again that there are considerable differences in attitudes within the gender groups. I was not to find a consistent 'badness' to 'prove' patriarchy existed, but I could validate a 'feeling' of it, based on the very fact that the situation proved so patchy and unpredictable. As will be illustrated the capricious way in which women were treated, sometimes well, sometimes less well, with no apparent pattern to it, was unsettling in itself. Many women commented, "you never know what to expect, you can never relax" (p).

I visited a representative range of colleges, including a Polytechnic in the Midlands, another further North, a major southern university, a London Polytechnic and a provincial technical college in the South East, meeting groups of women students. Also I talked to a range of course leaders, lecturers, and past students both male and female, from a variety of other colleges, on a face to face basis (individually or in groups), and also through the extensive use of telephone conversations as part of my dispersed ethnography. Whilst conversing with the people I sought to ascertain their views on the four substantive issues identified in the last chapter (briefly: surveyors' world view, and their assumptions about land use, other people and women, and who is the 'right type') as well as discussing their experience of surveying education.

The Growth of Courses

From my data, I was able to build up a picture of the development of the increase of the numbers of women surveying students, which
significantly went hand in hand with the growth of surveying education itself. Over the last twenty years, diplomas were gradually changed into degrees, and ordinary degrees were turned into honours, and overall the emphasis has moved towards more surveyors qualifying by internal courses; surveying being smitten in moderation by the diploma disease (Dore, 1976). This increased credentialisation (Collins, 1979) far from excluding women actually worked in their favour; the attainment of competitive academic entry requirements gave women more 'right' to enter. Colleges welcomed (what course leaders described as) "brighter women" whom I was told were "good for the chaps; they make them work harder and behave better" (parallels with 'mixing' schools). Many women students believed they were expected to bear the burden of increasing the standard on courses, whilst what they saw as "thicker men" were accepted with lower grades, commenting, "the true mark of equality will be when we get the thicke female being accepted on surveying courses" (p). Neither gaining entrance, nor achieving high marks should be equated with being treated 'the same' on the course, nor achieving the same career opportunities on the strength of the qualifications gained.

The numbers of women on courses grew very gradually. Taking an 'average' example of a general surveying (estate management) course based on a cohort of say fifty students (and my description is related to an actual typical, but confidential, example) I observed what I call the 'splutter effect' (Greed, 1990,d). A few sparks start the fire. It gradually glows then dies down, and suddenly comes to life again, and then consistently burns away more strongly. Back in the late Sixties, there were seldom more than one or two women on such a course, and in some years none at all. Then the numbers went up to say
three, of which perhaps one would leave the course after the first year. Old timers in departments, would explain, variously, "one was too attractive, and the other was too bright", or "she left to get married; she lost interest". By the mid Seventies there might be say three or four, one of whom would often be an overseas student. The lack of women at the beginning led to unusual alliances being formed. One woman surveyor, who was the only one in amongst 100 male students, used to go around with the two male black overseas students, because, "we stuck together because we all stood out and were different" (v).

The figures might die down again, then a few years later four or five women might appear, then none again. The figures would hover around the four mark, until the early Eighties as the fire took a long time to draw. By the mid Eighties there was an observable increase, a catching fire, with perhaps six or seven women per cohort. At same time the size of the classes as a whole had increased, the unit of fifty having risen to sixty on the more popular courses. Notwithstanding women's part in this, other factors were cited, such as the need to "over-recruit", "to allow for future cutbacks", and "to protect the course" (p). Also in less popular specialisms of surveying, there is competition between courses to attract more students, and so even the more macho courses are interested in recruiting women to 'keep afloat'. However paradoxically, it would seem that the higher the status of the college, the more women (who are generally seen as "brighter" and "classier") (sic). All this must be balanced against the fact that several colleges have developed other options aligned to surveying such as housing or town planning, where women might be channelled without affecting the overall
departmental intake whilst avoiding "too many women" (c) on the mainstream courses.

Whilst, the above account constitutes the archetypal situation, best shown by a description than by a table, I include three significant minority variations.

**Examples of Variations on the Splutter Effect**

**TABLE I: Condensed Growth**

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-2</td>
<td>1</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>1982-3</td>
<td>5</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>1983-4</td>
<td>4</td>
<td>34</td>
<td>38</td>
</tr>
<tr>
<td>1984-5</td>
<td>8</td>
<td>35</td>
<td>43</td>
</tr>
<tr>
<td>1985-6</td>
<td>13</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>1986-7</td>
<td>17</td>
<td>24</td>
<td>41</td>
</tr>
</tbody>
</table>

This actual example of first year enrolments from a course running only ten years in a Midlands Polytechnic shows a more condensed form of the splutter effect with male numbers actually declining.
TABLE II: London Factor

<table>
<thead>
<tr>
<th>Year</th>
<th>F</th>
<th>o/f</th>
<th>M</th>
<th>O/m</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>4</td>
<td></td>
<td>55</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>1975</td>
<td>5</td>
<td></td>
<td>55</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>1976</td>
<td>4</td>
<td></td>
<td>56</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>1977</td>
<td>5</td>
<td></td>
<td>56</td>
<td>1</td>
<td>61</td>
</tr>
<tr>
<td>1978</td>
<td>5</td>
<td>1</td>
<td>50</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>1979</td>
<td>5</td>
<td>4</td>
<td>50</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>1980</td>
<td>7</td>
<td></td>
<td>47</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>1981</td>
<td>14</td>
<td>1</td>
<td>56</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>1982</td>
<td>18</td>
<td></td>
<td>41</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>1983</td>
<td>13</td>
<td></td>
<td>47</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>1984</td>
<td>14</td>
<td>1</td>
<td>46</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>1985</td>
<td>17</td>
<td>1</td>
<td>49</td>
<td></td>
<td>66</td>
</tr>
<tr>
<td>1986</td>
<td>24</td>
<td>1</td>
<td>40</td>
<td></td>
<td>64</td>
</tr>
</tbody>
</table>

o/f = overseas females; o/m = overseas males.

This is an actual example based on first year enrolment in a London Polytechnic on an estate management course, where female numbers appear to be more consistent and greater (the 'London effect').
### TABLE III: Progression through Years

<table>
<thead>
<tr>
<th>Year</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>1976-7</td>
<td>35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1977-8</td>
<td>32</td>
<td>1</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>1978-9</td>
<td>30</td>
<td>1</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>1979-80</td>
<td>41</td>
<td>-</td>
<td>27</td>
<td>-</td>
</tr>
<tr>
<td>1980-81</td>
<td>29</td>
<td>5</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td>1981-82</td>
<td>35</td>
<td>-</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>1982-83</td>
<td>28</td>
<td>2</td>
<td>31</td>
<td>-</td>
</tr>
<tr>
<td>1983-84</td>
<td>35</td>
<td>5</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>1984-85</td>
<td>38</td>
<td>3</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>1985-86</td>
<td>34</td>
<td>5</td>
<td>30</td>
<td>3</td>
</tr>
</tbody>
</table>

Based approximately on a highly technological 'male' surveying course in a northern college; on the brink of splutter?

**Distribution of Women Students**

The representation of women in the different areas of surveying education will now be discussed in a similar sequence to the summary of the range of courses given in Appendix IV (and RICS, 1987, a).
Gender factors

As a general principle the most technological courses have the lowest numbers of women, and the most socially orientated courses the highest numbers, with the more commercially orientated courses being about in the middle. At the most technological end of the spectrum, courses with names such as surveying science, geodesy, photogrammetry, land surveying (and remote sensing) etc. are concerned with "real surveying" of land and sea (and nowadays space). These areas make up the smallest divisions of the RICS, with the smallest numbers of courses. However because of recruitment policies in the few colleges offering these specialisms, such as a leading course in a London Polytechnic, percentages of women students are now much higher (10% in some instances) than they were traditionally (around 2%), but numbers are still low relative to other specialisms (Appendix I, Table B).

Some land surveyors do not even belong to the RICS, aligning themselves either with land surveying bodies, geologists, or physical geographers. One male land surveyor referred to chartered surveyors as, "just a load of estate agents". However the whole profession takes its ethos from "real surveying" which puts women off.

Whilst some see it as a sign of equality and progress for a woman to go into a technological professional area, it may be a dead end. As one land surveyor explained to me, "the countryside has all been mapped nowadays, they are more likely to be asked to survey changes to street layouts in urban areas" (p). Land survey is arguably a declining area (except for the new high technology areas), and it has no social policy content for those who seek to change the
environment, as against recording it. Technological areas appear powerful because they are so male-dominated, but the greater power arguably lies in the office based areas of general practice surveying. Technological areas may actually be seen as lower status by other surveyors. Significantly several women in these areas have given me glowing accounts of the help that men lecturers gave them (in situations like Table III). Different mechanisms operate in different specialisms. One woman on her own in a technological area may paradoxically receive better treatment (in an otherwise highly chauvinistic sub-universe) than say ten women (i.e. a threat) on a mainstream course.

Minerals surveying scores the lowest of all with around 6 women students, 5 probationers, and one fully qualified woman in the whole of Britain. Such women are totally different from the more 'sloanie' estate management women, illustrating further the diversity of women surveyors. Further along the spectrum is building surveying with percentages of women students on different courses ranging between 2% and up to 7% with slightly higher numbers of women being found in first year groups in most colleges. This area is often written off by other women surveying students who perceive it as being full of "rough beer swilling yobos" (c). However 'building surveying' can cover a multitude of professional activities, some of which are high status. Quantity surveying courses attract between 3-10% women students, and is an area where after years of very low numbers the 'splutter effect' is taking off, but to a lesser degree than in estate management (compare Table III). There are often more overseas women than indigenous women on QS courses, and many lecturers observed, "every course seems to get its four Malaysian or Arab women" (p). This
is not necessarily a sign of equality but often the result of a non-gendered quota system on the part of the sending country. Several of the colleges that sent me figures gave a separate column to "overseas students" and another to "female overseas students" or simply incorporated them in with "female students" with a footnote as to origin. Surveyors have difficulty dealing with gender and ethnicity together. One chap told me "those women don't count, they're foreign" (v). 'Class' can cancel out both gender and ethnic origin. Regarding the model high caste overseas women (even Middle Eastern women wearing traditional Muslim clothing) have been known to take over as dominant leaders in predominantly white macho male groups.

In the middle range of the spectrum, around 20-25% of students on general surveying and estate management courses are women, even more in some London polytechnics (Table II) (Whittington, 1987). Over all specialisms, there is approximately a 15% average of women students, in comparison with 9% for engineering courses, around 20% for architecture, and up to 30% for planning in the current intakes (Healey and Hillier, 1988). At the other end of the spectrum, on the 'social end', Housing courses are found, and these have the highest percentage of women on surveying courses, up to 50%. These are courses where one is also likely to find more working class and ethnic students, leading one male estate management student to make the memorable comment, "they're all wogs and women on the housing course". Many others have observed, "if you are no good for the mainstream course you go on housing". A course's standard may be assessed by students by its "class" rather than academic quality. BUT the male students will all play rugger and football with each other in spite of this (Battersby, 1970).
Class factors

There are other 'levels' to surveying education. Joseph (1980) commented that surveying may be seen as a safety net for the professional classes. Nowadays this is not particularly true of degree courses where a commendably high standard is reached, but there is a range of diploma courses where it might apply, where only one 'A' level entry is the rule as against the three A levels more common on degree courses. Such courses give exemption to non RICS qualifying bodies, or provide a bridge through to other qualifying courses. The students can be very mixed ability, ranging from those that are seen as "simply thick" (p) and have got bad grades in spite of attending 'good' schools, to those that are bright and have been to poor state schools or are upwardly mobile. One also finds boys who have already been out in practice for a couple of years, often in estate agency, on such courses. Overall females will be present in similar numbers as on degree courses, but they are often described by lecturers as "more sloanie" and yet "a little brighter" (p) than the average boys on such courses (and are probably there for somewhat different reasons), although it has been commented by various people that, "one gets some really dim females too" (p) (the true mark of equality?).

There are certain northern technical colleges where it is possible to do courses that give RICS exemption. Such courses may contain few Northerners or women, but a suprising number of southern ex-public school boys. Bright Northerners (mistakenly?) head south, as they are convinced that attendance at a southern college is a stepping stone to a job in London. This is detrimental to the local economy and
contributes to the regional imbalance, and thus indirectly affects "what is built". There is another level still, of surveying technician courses, which are more 'male' and 'working class' than any of the above courses, but I would argue that many of the students are quite as bright but magically they 'know their place'.

Some women lecturers (few though they be) will actually defend the poor efforts of thick lazy young men by saying, "we shouldn't deprive them of higher education just because they are bad at passing exams" (p), a sentiment which seems misplaced when applied to students who have already had every opportunity and still failed; which contributes to the reproduction over space of social relations. They seem willing to apply lower standards to such students than they themselves have been subjected to, although they admit that, "you've got to be twice as good if you're a woman". I see this as a classic case of entrepreneurial middle class women (Miller and Swanson, 1958) protecting the offspring and territory of their tribe (Ardener, 1981). Class allegiances are more important than principles of gender in such situations (a class and gender link on the model).

Full-time courses are only part of surveying education, as there is still a sizeable number of people qualifying by part-time and correspondence courses (CEM especially). The profession has not only expanded but also created distinct levels and status groups within itself, with people arriving at their different destinations within the profession via different college routes. There is a great difference between a part-time building surveying student, employed in a local authority, doing a day release course at a provincial technical college and a young chap going to a prestigious full-time
university course, but they are both going to be surveyors. Part-time courses may also include the sons of high status surveyors who freely acknowledge they "can see through education" and have no desire to indulge in anything as down market as being a student (c/s, Vol.6, No.8: 496, 23.2.84). There is also a substantial number of non-cognate graduates on part-time courses, creating a mixed ability class altogether. Surprisingly there are very few post-graduate surveying degrees which reflects the anti-academic ethos. In contrast there are 25 colleges offering town planning degrees (half of which are universities) offering between them 27 postgraduate, and 16 undergraduate courses. Town planning is of higher academic status but is seen as lower social status by surveyors. "Class" and academic status are apparently not related.

The women that are/were found on part-time and correspondence courses are usually in a small minority (except on Housing where they make up nearly 50%). They seemed to come in two different 'types' both of which are fairly 'unusual'. Firstly there are those with a degree in a non-cognate subject often 'quite posh' from Oxbridge, who then qualified as surveyors at the local technical college. One told me "it was quite a come down but one had to be very philosophical about it. Some of the lecturers were very polite almost as if they were afraid of me". Another said, "I had an arts background in English, and had never had to memorise so many facts before, all these boys straight from school were so much better at it". Secondly there used to be a very small number of women, who went straight from school to work in a local authority which sent them to technical college on a day release basis, one explaining, "they put me on the surveying course because there was no town planning course running at that time,
I don't think they, or I had any idea at the time that I would end up as a senior chartered surveyor”. Talking to some now elderly male lecturers, it would seem that such girls were not taken very seriously, from their comments such as, "I can't imagine what they come on the course for”. I found that many such women had risen way beyond some of the men in the same classes. A woman has to be fairly unusual to attend a run of the mill course, and is usually of a totally different 'class' from her male classmates.

Most women surveyors seem to fall into two or more extremes, somehow missing the range of 'ordinary women' in the middle, whilst the men seem to be drawn from a much narrower range of boringly repetitive types. One of the paradoxes of my research findings was that quite exceptional women believed they were ordinary and couldn't see what all the fuss was about, and (regarding my model) possessed no apparent gender or class consciousness whatsoever, and certainly little interest in trying to change "what is built”.

Women Lecturers

The percentage of women lecturers varies considerably from college to college going from about 1% up to 10% in some exceptional cases, but basically there are very few overall. It is impossible to generalise, as I could find at least one woman lecturing in just about every subject and department (unlike Geography, Mc. Dowell and Peake, 1989), although she might be a part-timer or servicing from another department, and the situation changed from term to term. However there do seem to be more full-time women teaching valuations, and town planning than other subjects; the former having a zero social element,
and the latter not necessarily being taught from a socially aware perspective, but as "developers' planning" (c), with negative implications for "what is built". One has to be careful as to what exactly women in the technological areas are teaching. Women in quantity surveying may be teaching the building contract law rather than construction. The few women I came across in the technological areas seemed to be over-qualified, such as women architects teaching basic construction courses, or even draughtsmanship. Such subjects are often taught either by older males who had been 'inherited' from technical college days, or overqualified people who had been 'caught' by cut-backs in education, or domestic responsibilities.

Older women who had entered the profession when there were fewer women in it, are likely to be more determined and of a higher calibre (and some say 'class') than equivalent men in surveying education. It is not surprising that three such women are at Head of Department level, or is it? Proportionate to their minute numbers, women are at more senior positions in surveying departments than other departments within several polytechnics. Women either fit perfectly and for their numbers achieved higher levels of responsibility than the men, or they are seen as "oddities" (sic) that show that surveying education is progressive, but fulfill the 'Aunt Sally role', in demonstrating what surveyors are not meant to be like. (This is a classic example of women who are operating from a feminist perspective, unwittingly fulfilling the requirements of the patriarchal subculture). Again it seems that there were two extremes without many in the middle. One 'feminist' woman surveying lecturer said that one of her students had asked her, "Will I have to cut my hair to succeed?" as she had noticed that most successful women in surveying had short hair.
Many surveyors believe that nowadays, because of the demand out in practice, "only women will be left in surveying education" (p). Indeed, full-time vacancies are being filled by younger women in some departments. Also there is, in just about every department, say, three part-time or associate women lecturers. Some Polytechnics seem to have a definite policy of shifting the teaching onto such women, whilst the full-time men retain control and occupy themselves with "administration" and private consultancy. It is quite a trick to retain a male ethos to a department and a profession, whilst using women as the mouthpieces for the transmission of the subculture. This is quite different from women being in control and teaching from a feminist perspective.

Within the anti-academic atmosphere of surveying, the position of the 'teacher' is an enigma. Many students see lecturers as failures because they are not in practice (but women are seen as having an 'excuse'). Students may not necessarily respect lecturers, but they will still strive to reproduce their views in order to pass exams. As Joseph pointed out (1980), there is a dilemma in surveying education. To get degree status, there must be some tolerance of 'academics'. However those that are perceived as 'best' are those in practice, who are more likely to reflect an entrepreneurial outlook and to lack a concern with social issues. A male 'part-timer' who spends most of his time in consultancy (and comes late or sometimes not all to lectures) may have a much higher status than a conscientious woman part-timer. This is even more so in architecture, where all the best male lecturers are 'part-time', and the women are more likely to be full-time. Indeed, women lecturers may constitute a micro-proletariat within the surveying subculture (meso level of model) and the fact
that there are more of them nowadays may not mean the situation is better (Greed, 1988).

Mention must also be made of the 'other' women in surveying, the office staff, catering staff and cleaners, technicians and librarians. For many years these were the only women in many departments, and students got their image of the position of women in surveying from such women's role in the department. I have often observed that a man may go 'down' to the typists and flatter and flirt with them to get his work done and then go back to his office and moan about the stupid typists. In spite of this, these women seem to take on the ethos of the department. A new typist, who typed out a conference programme for me, couldn't read my writing and typed in 'Land' instead of 'Lunch' in the midday slot, showing that subconsciously she had learnt the most sacred word in the subculture! Before I had my word processor the typists had typed up an earlier paper for my research. If they disagreed with what I wrote, or had some additional insight from their perspective, they would tell me so, which I found very helpful.

Progression through the System

School background

Whilst the numbers of women have increased, it does not follow that their experience of seeking to enter surveying education, the way they are judged once in, and their subsequent destination are the same or comparable to the experiences of male students. This section seeks to illustrate the ways in which women encounter the admissions and examinations structures 'differently', in a system in which the male
student is still taken as 'the norm' (regarding the model, effecting exclusion or at least discouragement) even when no discrimination is actually intended. Differential treatment on the basis of class is also highlighted.

Surveyors (presumably male ones) are frequently referred to by town planners as "just a load of rugby playing public school thickos", but this is not so. I went through several sets of student records of both males and females, checking their schools in the public schools yearbooks, and ended up confused by the large number of quasi-state, grammar and 'selective' type schools they had attended, which all appeared to be relatively elite schools. In the post war period it is estimated that the percentage from state grammar schools rose to 50% reflecting the expansion of surveying by recruitment from more meritocratic sources (Davies, 1972). The public school contingent dropped somewhat, although many would say that it is rising again in the present generation. A small but significant number of students came from what they saw as 'good' comprehensives, which provided the sporting facilities and qualifications which they needed to be surveyors. Surveyors are adept at knowing what is 'available', and using to their advantage whatever the current educational structure offers.

I did not make a special investigation of students' social class origins (as did Joseph, 1980) but got a general impression through my ethnography and past experience as a lecturer. As with 'gender' it is simply 'not done' to raise such matters, and it can be counterproductive. It would appear that a considerable number come from the professional, entrepreneurial, or farming backgrounds. I did
try out an ill fated questionnaire on one year group, and found there were a fair number with mothers (as well as fathers) who were in the professions, including accountants and some town planners (i.e. entrepreneurial families with possible bourgeois feminist mothers). Others had mothers who were teachers, and some women have made it very clear that they have come into surveying because they did not want to teach. I was not the only one to investigate 'on the quiet' students' social class. A socially aware male construction lecturer (a rare combination) had done his own survey, by asking the students to produce plans of the roofs of their houses. Some came back with plans of wings, and gables, a sure giveaway as to social class.

Publicity and admission

One of the biggest problems for women was simply knowing about surveying. Very occasionally women's magazines mention surveying as a career (Working Woman, March, 1985: 62-3, and May 1986: 20-21; and She, December, 1987: 26). If women found out about surveying at school, it was often purely by chance. One woman surveyor, who went to a grammar school with a separate boys and girls department, said that she received a prospectus on surveying because it was sent to the wrong half of the school, being intended for a boy with the same surname. I have found frequently that those who entered 'by chance' were often more successful than those that had planned from the beginning to enter surveying; maybe they were seen as more pliable and less of a threat? The RICS commissioned a study of the image of surveyors held by career advisors and potential recruits in schools (Valin Pollin, 1986). Even the RICS admitted in response to the report, that the general public were right in seeing the profession as "middle class,

Far from encouraging girls many schools positively discouraged them from entering surveying. One woman said that she was made to feel naughty and disobedient for wanting to be a surveyor, indeed the teachers kept finding her leaflets about librarianship. Another said that the teachers sent a note home to her parents warning them that she wanted to be a surveyor, when in fact her father had first encouraged her. It was suggested that she was going through a rebellious phase. I have had several of these accounts including ones from women who are still students, in spite of all the talk about getting more women into science and technology (Kelly, 1987). Many girls were warned by women teachers about lifting heavy equipment and having to go onto building sites (compare Elston, 1980:111). Even women surveyors have had to fight with schools to stop them pushing their daughters into doing cookery when they want them to do science. Overall many expressed an extreme contempt if not hatred for their women school teachers and in comparison saw surveying education as a form of liberation (Okely, 1978). It is easy to understand why many women saw men, and not women, as the ones who had encouraged them, and therefore had little time for feminism, but older women said on this "they haven't realised yet" (p).

Few colleges can resist showing the photogenic side of surveying in their prospectus (the 'front', Goffman, 1969). Typically there will be a photograph of a mixed group of students out on site, wearing hard hats, with a female student looking through a theodolite. This creates two damaging false images, firstly that surveying is macho-
technological and to do with land survey, and secondly that it is perfectly normal to find women surveyors in education and practice. As stated in early chapters, surveyors frequently use false images which exaggerate the numbers of women in surveying (and then believe this is the truth). A sensitising concept in this respect is that of 'the abstract woman'. Men enthusiastically produce photographs, give careers talks, and talk abstractly about the need to get more women into senior positions in surveying education and practice (even in my presence). But it all seems to relate to some hypothetical woman; a more 'perfect women' than any existing women surveyor; or to a place faraway where it is already happening. This 'abstract woman image' can be very destructive because it's almost as if women must 'believe' in her, and they are being disloyal in feeling all is not fair.

Curiouser still in everyday life (when men are not being asked to focus on women as a special topic) women will continue to be treated as non-gendered students. This may have benefits. In interviews for college they are unlikely to be asked about their future plans for combining two roles. Indeed this 'denial' of their existence as women in itself might be seen as off putting. I have observed that many careers talks given on Open Days about a future life in the profession seem to relate entirely to a male pattern with no mention at all of opportunities for career breaks. Girls are unlikely to raise such issues in the ensuing question time, as they feel awkward or fear it will be used against them as a sign that they are not really serious. Indeed some men do have prejudices about women's 'seriousness'. For example one of the women mining engineer students said that a male lecturer seemed to be extra harsh in the way he interviewed her. When she commented on this he apologised, and said that he was only trying
to put her off to see how serious she was. This was a woman who had already demonstrated her dedication by her geological studies at 'A' level and her knowledge of mineral workings. It is unlikely that a male student would have been quizzed in the same way.

There have been a very few attempts amongst the landed professions to positively discriminate, by setting up 'women only' courses, including one surveying course set up under the EEC social fund (c/s, Vol. 11, No. 9: 674, 20.5.85), which I visited. The students were mainly mature women, some of whom subsequently went into surveying, but others used it as a stepping stone to other professional areas. More recently another 'women only' course has been set up for heating and ventilating engineering (which is on the boundary with building services surveying). Whenever I have mentioned such courses to my women students they have been horrified, and believe that studying (with) men is half the education.

Grades: are they different?

Looking at the 'A' level subjects and grades there seems to be little difference between the applicants in respect of gender. However it is noticeable that some colleges simply do not count Art or Domestic Science at all on their points system. Many women seem to have got wise to what is expected of them and obtain the model set of A levels including maths, science and geography (Joseph's concept of 'precision'). However these subjects may be combined with what may be seen by men 'gatekeepers' as "odd subjects" such as embroidery or drama, which might lead them to say, "they are not really interested" (p), or that "we must keep an eye on her" (p). Some women take
additional quasi professional subjects at school, such as business studies, computing and even 'O' level land surveying, but taking such subjects can be seen as a sign of suitability for technician level.

The same subjects can be 'read' differently depending on if they are taken by a boy or girl. I was surprised how many boys had Biology and Geography which are often seen as girls' subjects, but if boys do them they may be looked on in a different light as boys' subjects. Obviously the boys don't believe their own gender's propaganda about the need for science, that is for the girls consumption. (These comments apply to the general practice courses, as on the specialist technological courses they must have relevant science subjects).

There is a surprisingly wide span of both subjects and grades possessed by students, although the average for estate management is around 9 points (Whittington, 1987) but there are students with both 3 'A' levels at Grade A, and three at Grade E on surveying courses. It would seem that being the right type is what matters more. If a girl (or boy) has low grades or inappropriate subjects and is still accepted she must have some other plus factor, such as a famous surveyor father (as observed several times). Great emphasis is put on applicants' personal interests, especially sports (the key to career success and esteem, e/t, No.904:14, 24.7.87). This puts women in a difficult position, as one never knows how women's interests or indeed sports will be interpreted. I well remember interviewing an applicant who said triumphantly, "I suppose I have an unfair advantage really" because of his rugby prowess. Surveyors also like applicants who are doing the Duke of Edinburgh Medal Gold award scheme, and wise girls 'know' this and will do so.
Performance in college

What I had not expected was that yearly examination grades and final degree classifications showed very little difference in performance and distribution of marks between male and female students. If anything the girls did slightly better overall. Several of the course leaders that I contacted entered into the spirit of it and tried to carry out their own analysis and came to the same conclusion. As one male course leader put it, "it would be unwise to suggest that these figures exhibit any trends whatsoever" (v) and I had to agree. On the other hand another male course leader claimed all the glory for increased numbers and good grades for himself, as if he thought the girls couldn't possibly done it all on their own.

The fact that the figures were the 'same' did not mean that women experienced surveying education in the same way as the males. Many women students are working twice as hard in having to understand and decode a male world before they even start learning the material (compare Deem 1984; Mahony, 1985). Although occupying the same physical space, they do not share the same social space. One can end up with the same result through a variety of different factors. Also the fact that women got good or at least typical grades does not suggest that they liked it, for as one of my ex-students typically told me, "my main aim was just to get through the course, as a means to an end, that's all" (p).
TABLE IV: Archetypical Example of Final Examination Position

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Position of Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>10</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1975-76</td>
<td>11</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1976-77</td>
<td>12</td>
<td>2</td>
<td>9, 10</td>
</tr>
<tr>
<td>1977-78</td>
<td>13</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>1978-79</td>
<td>13</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1979-80</td>
<td>8</td>
<td>3</td>
<td>1, 3, 6</td>
</tr>
<tr>
<td>1981-82</td>
<td>17</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1982-83</td>
<td>14</td>
<td>3</td>
<td>2, 6, 13</td>
</tr>
<tr>
<td>1983-84</td>
<td>11</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1984-85</td>
<td>16</td>
<td>2</td>
<td>4, 14</td>
</tr>
<tr>
<td>1985-86</td>
<td>13</td>
<td>2</td>
<td>2, 13</td>
</tr>
</tbody>
</table>

Figures are from a relatively small specialist undergraduate group in a university. However this example represents, in microcosm, the archetypal situation found on a whole range of surveying courses.

**Double Standards**

In the technological areas where there are few women, several course leaders have commented to me that "the girls are either very good or very bad". Because they have made a conscious decision to do an unusual subject for a woman, and are highly motivated, and may overestimate what is expected of them they work extra hard at the technological subjects and beat the boys. Needless to say some of the boys are overconfident as to their knowledge and abilities in these areas and underachieve. Also subjects that are made out to be
difficult are often not really that complicated. Proud men teaching on what many would consider sub-degree courses in the smaller colleges may go on about how difficult their subjects are for women, when the women are in fact of a far higher academic calibre than they themselves.

One male lecturer told me in respect of women students, "sometimes they have trouble with strategic and analytical thinking, I think this is a function of their earlier secondary education" (v). Quite what is meant by 'analytical' needs considering. Talking to several such women in question, I have found them capable of a highly sensitive sociological analysis of their lives, and comparing these with the somewhat mono-dimensional male students in the same groups who seldom question anything, I find this statement strange. Academic ability can be used against a woman who is seen as being 'too clever'. I remember being told by a course leader that a student, was "too bookish", but nevertheless had potential to be a good student.

Destination

Joseph observed little correlation between examination achievements and degree of seniority attained in the profession. Several women have commented to me that their experience and achievements in education raised their expectations unrealistically, for they found that quite different virtues were valued out in practice. Many were mystified as to why male colleagues whom they judged as "thick" (c) were promoted and favoured above them. Clearly the men were playing a different ball game with totally different rules. Educational success was not the name of the game, many ex-students commenting, "College
is an unreal time zone, a suspension of reality" (p). Several men in education were aware of the problems that faced women in practice, opining, "the problems seem to be when they try to break through to partnership level". Such men blamed the men in practice for the lack of women's progress and vice versa, but it was never them personally of course. Nor did it seem to occur to them to use their authority in surveying education to try and alter the attitudes that cause this situation in the first place.

Some prestigious London practices take up to 30% non-cognate students (with no prior knowledge of surveying), so the old argument used against women, about their not being adequately qualified or experienced falls flat. As one very senior man literally said to me, "as long as he is the right sort of chap, well we can train him in all the little details, there's nothing to it". I would be really interested in a few years time to see whether some of these non-cognate 'chaps' have achieved partnership ahead of the cognate non-chaps, i.e., the women that took surveying as their first degree. Surveyors can allow a slack rein in education as they can compensate for this later. Education is seen as less of a problem than practice provided women let themselves be treated as non-gendered student units, and don't antagonise anybody". Several women commented that "we were all students together we got on as a team", but the same women saw their treatment in the team in retrospect as less than equal, saying, "you accept anything when you are a student, it's only when you get out in practice and talk to others that you realise how different it might have been". Indeed female students' treatment and experience may be very 'different' within the 'same' educational setting as the male students as will be seen in the next chapter.