GLASS CEILINGS,
Glass Parasols and Australian Academic Archaeology
Claire Smith and Heather Burke

Consider this picture: You are on the ground floor of a building, one of those modern palaces where balconied floors surround a central atrium reaching all the way to the roof. As you gaze upward, you can see fifteen floors of the building, all containing the expected level of activity: people are walking, alone and in groups, glass elevators are gliding up and down, a few people lean on the balcony railings, admiring the beauty of the architecture. As you continue to watch the people above, you begin to discern a pattern. On the second and third floors, there is a mix of people, young and old, black and white, male and female. But as your focus moves higher, that all begins to change. By the seventh and eighth floors, the people are considerably more homogeneous - mostly white, and mostly male. On the uppermost floors, minorities and women have pretty much vanished, and even those riding the glass elevators to the rarerfied air of the top floors are nearly all white, and nearly all men (Baker et al. 2003).

Abstract
The 'glass ceiling' was a term coined to depict the invisible yet impenetrable barriers met by women seeking to advance to the uppermost levels of the corporate ladder. It is not simply a barrier encountered by an individual, but rather applies to particular groups of people who are kept from advancing as a result of attitudinal and organisational biases and internal systems that operate to the career disadvantage of women and minorities. Within the discipline of archaeology an interest in the status of women in the workplace was a core facet of an emergent archaeology of gender. Much has been accomplished since then, and in the early twenty-first century women are a fundamental part of the archaeological social landscape. But, despite this, have women really achieved equity in the workplace? Or is equity something that still needs to be pursued actively? How do women's careers shape up when compared to those of men? Does the metaphorical glass ceiling exist in archaeology? Or is it simply a glass parasol that women hold up for themselves? How far have women come since the feminist push of the early 1990s?

Introduction
The 'glass ceiling' was a term coined by journalists Carol Hymowitz and Timothy Schellhardt (1986) to depict the invisible yet impenetrable barriers met by women seeking to advance to the uppermost levels of the corporate ladder. Their report came at a critical time in the struggle by women and civil rights groups for greater representation and equity, not only in the corporate world, but also in the workplace as a whole. The term 'glass ceiling' resonated throughout the Western world, quickly becoming part of everyday language, and, in time, was incorporated into the title of a United States commission, the Glass Ceiling Commission (U.S. Federal Glass Ceiling Commission 1995a, 1995b). Since the publication of Hymowitz and Schellhardt's report, the metaphor of the glass ceiling has been applied to describe any artificial barrier that limits suitably qualified men and women of diverse ethnic backgrounds, as well as disabled and sexual minority groups, from advancement to management level, irrespective of their accomplishments or merits (U.S. Glass Ceiling Commission 1995a). The glass ceiling is not simply a barrier encountered by an individual, based on the person's particular skills or abilities. Rather, it applies to particular groups of people who are kept from advancing higher because they are members of those groups (cf. Morrison et al. 1992). This ceiling derives from attitudinal and organisational biases and is comprised of day-to-day practices, management and employee attitudes and internal systems that operate to the career disadvantage of women and minorities (Chicago Area Partnerships 1994).

The manner in which glass ceilings constitute a barrier, not only to individuals but also to society as a whole, has been a focus of much research in the last 20 years. Apart from equity issues, the main concern is that glass ceilings reduce the potential pool of leaders by discriminating against significant portions of the population, with the detrimental economic and social implications that arise from this. In the United States, the Civil Rights Act 1991 established the Glass Ceiling Commission, whose mission was to study these barriers and issue recommendations for eliminating them, increasing the opportunities and development experiences of women and minorities, and foster the advancement of women and minorities to management and decision-making positions in business (Reich 1995:4).

The notion of a glass ceiling quickly became an integral facet of discussions concerning the status of women in the workplace. This has been a focus of scholarly interest and public concern, materialised in terms of specific disciplines (e.g. National Science Foundation 1997, 2003; Nelson et al. 1995; Rosser 2004), specific institutional environments (e.g. Collins et al. 1998; Ford and Hurd 1995; Keller 1985; Victor and Beaudry 1992; Zikmund 1988), and the workplace as a whole (e.g. U.S. Glass Ceiling Commission 1995a, 1995b). The common threads to these discussions are the documentation of equity issues, identifying the barriers that impede the progress of women and minority groups and mitigating the negative effects of disciplinary and institutional cultures.

Within the discipline of archaeology an interest in the status of women in the workplace was a core facet of an emergent archaeology of gender. Over the last two decades, the status of women as archaeologists has been a focus of gender archaeology both in Australia (e.g. Beck 1995; Beck and Balme 1994; Beck and Head 1990; Buckley 1993; Clarke 1993; McGowan 1995; Truscott and Smith 1993) and overseas (e.g. Diaz-Andreu and Gallego 1995; Gero 1985, 1988; Nelson et al. 1995; Wylie 1993). Much has been accomplished since the late 1980s and early 1990s and in the early twenty-first century women are a fundamental part of the archaeological social landscape. Female archaeologists seem to be everywhere: they lecture, give conference papers, publish scholarly papers and books, receive research grants and are employed as archaeologists. But, despite this, have women really achieved
equity in the workplace? Or is equity something that still needs to be pursued actively? How do women's careers shape up when compared to those of men? Does the metaphorical glass ceiling exist in archaeology? Or is it simply a glass parasol that women hold up for themselves? How far have women come since the feminist push of the early 1990s?

This paper discusses these issues as they have manifested in Australian academic archaeology. While our principal concern is with the contemporary status of women in academic archaeology, we also take an historical perspective when comparative data are available. In order to assess the status of women we analyse women's and men's employment profiles, publication rates, success at obtaining research grants and conference participation. We interpret the patterns that emerge in terms of the gendered behaviours that imbue the disciplinary culture of Australian academic archaeology and institutional cultures in the twenty-first century.

Women in the Workplace

Concern about the persistently low numbers and status of women in the archaeological workplace (Beck 1995; Beck and Balme 1994; Bowdler and Clune 2000; Buckley 1993; Clarke 1993; Colley 2000; Gero 1985; McGowan 1995; Truscott and Smith 1993), and in the academy generally (Collins et al. 1998; Hutson 1998; Rosser 2004; Victor and Beaudry 1992), has been evident in the literature for at least the last two decades, especially in terms of 'chilly climates' that inhibit the equal advancement of minority groups (see Wylie 1993). In order to gain some insight into this issue as it presently stands in Australia, we examined the profiles of Australian universities in terms of the sex of scholars employed full-time in the academy, and their current positions. This allowed us to assess the degree of gender bias in employment, as well as the gendered aspects of promotion that can be discerned within the academy. In this paper the data are classified according to sex, from which we infer gendered behaviours, though we realise that there is no automatic correlation between the two.

Tables 1–2 show the sex of archaeologists employed full-time in Australian universities, according to employment classification and institution. In order to see the patterns more clearly, these figures are amalgamated in Figures 1–3 and presented as percentages. Figure 1 shows that women are under-

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Total 12 3 1 2 0 1 5 8 3 4 39
represented in the academic staff of Australian universities – despite almost two decades of concern about this issue – but that this patterning varies according to the type of position. While women constitute 41% of archaeologists in the academy, a little more than the national figure of 38% for academic staff in 2002 (Australian Vice Chancellors' Committee 2003), this is not evenly distributed across lecturing and research positions: only 31% of lecturing positions in Australian universities are held by female staff, though they hold 61% of research positions. Surprisingly, one university (Australian National University) does not have one woman on its permanent teaching staff, though it has a strong female presence in the form of six female Research Fellows and two at the level of Associate Professor. In addition, six universities (Adelaide University, James Cook University, Macquarie University, University of New England, University of Queensland and Wollongong University) have only one woman on their teaching staff. In some cases, this is because there are low numbers overall, and in others it is because the programme is still being established, but such explanations are not sufficient to explain the overall patterning. Only two of the 13 institutions included in this study, Flinders University and the University of Western Australia, have more female than male lecturing staff.

Figure 2 shows the percentage of archaeologists employed full-time as lecturers in Australian universities, according to sex and classification. At the level of Associate Lecturer (Level A), female representation is 100% (but this is represented by only one position, see Table 1), while at the level of Lecturer (Level B) (represented by 18 positions) the percentage of males is 72%, a ratio of more than two males to every female. Representation comes closer to equal at the level of Senior Lecturer (Level C), where women hold 44% of positions. However, there appears to be a ceiling at this level, as few women advance to more senior positions at a comparable rate to men: only seven women archaeologists in Australia hold either the position of Associate Professor (Level D) or Professor (Level E), in contrast to 21 men. Female representation at these levels constitutes only 25% of teaching staff. It is notable that two of the four female appointments in the category of Professor (La Trobe and Sydney) were made in the last 18 months. While this may indicate a change, the numbers are too small to be sure of this. Apart from low representation at entry levels, these figures suggest that

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Table 2 Male archaeologists with full-time employment in Australian universities, April 2006.

Number 62, June 2006  australian ARCHAEOLOGY  15
female lecturers in archaeology are meeting a metaphorical glass ceiling. This is broadly comparable to the national figure for academic staff in 2002 (Australian Vice Chancellors’ Committee 2003). These figures indicate that, despite changes designed to create a more level playing field, including legislative changes and the proactive employment policies that have been developed by many universities, women are advancing only slowly into the senior levels.

Figure 3 shows the percentage of archaeologists employed full-time as researchers in Australian universities, according to sex and classification. Women have higher or equal representation with men at all levels of Research Fellow, with the exception of that of Senior Research Fellow (Level C) and Professorial Research Fellow (Level E) (which is represented by a single male). It appears that women are either (a) choosing research fellowships over lectureships or (b) choosing research fellowships as an option until they can obtain a lecturing post. It should be noted that research and teaching positions are not directly equivalent. In contrast to lectureships, which are mostly tenured or tenure-track, fellowships are normally of fixed duration. Postdoctoral fellowships, for example, are awarded for the researcher to undertake a particular project, over a specific period (usually three years). While research fellowships may appeal to women because they offer greater flexibility than lecturing positions, this is normally coupled with a level of insecurity, especially at the more junior levels. One difference between lectureships and research fellowships that may be relevant here is that while the former are determined by committees who interview applicants, the latter are determined on the basis of quality of project and quality of researcher, and do not usually involve a formal interview.

These data raise a number of critical questions. What is the cause of this patterning? Does it apply to the general archaeological workplace, or only to the academy? Does this situation apply to disciplines other than archaeology? What lessons can be learnt from this? The question of cause is a complex one, since, as all archaeologists are aware, patterns in human behaviour are an intersection of many factors. Certainly, a fundamental issue is the cumulative effect of behaviours such as stereotyping, exclusion and isolation, devaluation and trivialisation of women’s abilities to reach their full potential. Irrespective of equity legislation, such subtle discriminatory practices can create a ‘chilly climate’ that inhibits professional advancement (see Wylie 1993). However, one problem with some of this literature is that it is framed in terms of women as victims. Such an approach is seriously limited and could actually promote the situation, since it places the onus for change on the perpetrators (assumed to be primarily male), or on academic cultures (somehow intangible), rather than in the hands of women themselves. Beyond the indices of victimhood lie identifications of the differing values held by women and men (including enormous variation between the sexes) and how these values intersect with those of particular disciplinary cultures.

The patterns identified in this paper need to be addressed. In our view, the area of greatest concern is that of entry into the academy (Level B), where men outnumber women at a rate of 2:1. If twice as many men as women continue to be employed at this level, the pattern will continue, and the academy will lose the talents of skilled people. It appears that the women who do not obtain a tenured post apply for research fellowships, take up consulting, or move to overseas institutions. In this context, it is notable that a significant number of young Australians have been appointed to posts in overseas institutions over the last few years. This is part of a wider trend in Australian society, whereby around 5% of our population (one million out of a population of slightly more than 20 million) live overseas (Australian Chamber of Commerce and Industry 2004). While for some scholars a deciding factor has been that research in areas such as feminist theory, identity and postcolonial theory was not highly valued within the disciplinary culture of Australian archaeology at the time (see Meskell 2003), there is no doubt that these people are also influenced by their perceptions of whether they are likely to gain entry to the academy in Australia and promotion at the rate they expect. A more general study by the Australian Chamber of Commerce and Industry (2004:2) found that:

The Push factors for these young academics ranged across what respondents saw as the relatively low status for professionals in these areas at home and the long-term funding decline and lack of research career opportunities in Australia. The Pull factors for these people revolved around better salary and career opportunities abroad.

Some of our top scholars, both female and male, are taking their intelligence, energy and skills permanently to another country, a disciplinary facet of the much discussed ‘brain drain’ of Australian academia (Hugo et al. 2001; Nicol 2000; Wood 2004). While this has to be evaluated against the scholars with comparable skills who immigrate to Australia, we should be
Concerned about the loss of skills to the Australian archaeological community from the scholars who leave permanently, as against the gain in skills that would come from them acquiring experience and qualifications overseas and returning home. Given the figures reported in this paper, we expect this Australian diaspora to continue.

It is difficult to determine whether the pattern described above holds across the archaeological workplace. To do this, it would be necessary to assess these issues for other forms of employment, especially those in the cultural heritage management sector. The majority of Australian archaeologists are employed by government heritage agencies or work as private consultants, dealing with cultural heritage management (Frankel 1998:27). Goulding *et al.* (1993) assess the perception in Australian archaeology that women numerically dominate the cultural heritage sector. They found that 'while women are more likely to be employed in cultural resource management ... there is no gender difference on this point' (Goulding *et al.* 1993:228). McGowan (1995) argued that the field of cultural heritage management, even at the senior levels, was female dominated, and that, because of this, the problems commonly associated with women's work, such as lower pay and unsatisfactory conditions, affected cultural heritage management workers (both women and men). Essentially, because the field was female dominated, it was therefore perceived as 'women's work'. Writing in the early 1990s, Truscott and Smith (1993:219) noted that women comprised 60% of consultants and held 46% of government cultural resource management positions. This suggests that, as more women are employed, a perception arises that the sector is 'full of women' — even when their numbers are only around half, or less. It may also be related to the status of this sector (see Clarke 1993), which is sometimes perceived as being lower than that of the academy. In our view, a similar decrease in status may occur in the academy should it ever reach a point where the representation of women approaches demographic equity.

What lessons can be learnt from this? Firstly, women archaeologists seeking lectureships within the academy, or advancement within its ranks, should recognise they are at a structural disadvantage. They would do well to take advantage of the numerous publications that offer career strategies for women (e.g. Chesterman 2000; Collins *et al.* 1998; Hansen 2005; Phillips 1998; Williams 2001; Zarmati 1998). Secondly, we need to recognise that it is an easy matter to lose ground, even when achievements have been accomplished. For example, women made progress towards demographic parity and occupational equity in science, mathematics and engineering during the 1970s and 1980s, but this slowed during the 1990s (Goodell 1998) and, in some cases, has reversed (Vetter 1996). In terms of equity, the critical issues for women in Australian academic archaeology are whether those who now hold fellowships will obtain permanent entry to the academy and, if they do, whether they will obtain promotion at a comparable rate to their male peers. No doubt this will be influenced by the generational shift envisaged for Australian universities as baby boomers retire and are replaced by Generation X-ers (see Winchester 2005). Hopefully, the greater flexibility envisaged for university scholarly environments will translate into greater equity.

Beyond this, it is important to consider what is happening in other archaeological workplace sectors. Cultural heritage management, in particular, is often marginalised (see Hope 1995), and is overlooked in studies such as our own, partly because it seems to be more difficult to gather data for this sector. While there is pertinent information in a number of studies (e.g. Flood 1993; Smith 2000), a more comprehensive study is needed — one that would consider the trends in heritage and other government agencies, as well as in the consulting sector. While there have been some very dedicated senior archaeologists in this sector who have been influential in saving sites and in developing heritage policy both in Australia and overseas, how the authority of individual females translates to equity in the workplace is a different matter, and one that deserves serious study in its own right.

**Publications**

A central aspect of status within an academic profession is the production of high quality, peer-reviewed publications. Within post-processual archaeology, much has been made of the many ways in which prestige is unevenly distributed within the academy, and the various strategies through which this unevenness is maintained (e.g. Hutson 1998). Publication rates, particularly in terms of the number of journal papers and books, has been found to be one of the best predictors of rank across the subfields of American anthropology, including archaeology (Bradley and Dahl 1995). Obviously this is tied to wider gender and equity issues, as there is often a circular bind arising from the structural position of women within the academy, the consequent opportunities available to them to publish and the subsequent rate at which they can gain promotion and research funding. There are a number of ways in which the nexus between publication and status can be analysed in terms of women's equity issues within the academy. We have chosen to look at the overall rates of publication according to sex, the comparative trends in these rates across the three major journals for Australian archaeology — *Australian Archaeology* (AA), *Australasian Journal of Historical Archaeology* (AJHA) and *Archaeology in Oceania* (AO) — and the incidence of co-authorship as one potential strategy by which women can enhance their publication opportunities.

Figure 4 is an amalgamation of the rates of authorship for major articles across all three archaeological journals for the years 1984–2004 inclusive (the period when all three journals were in production). 'Major' for our purposes includes all articles within the main body of the journal (i.e. everything classed as an 'article' in AA or AO, and everything prior to the reviews section of AJHA). Editorials, obituaries and conference notes have been
excluded. There is a clear gap in the rate of publication, with men averaging 38% more publications in comparison to women. While secure identification of the number of unknowns may well enhance the relative publication rates for women, even a 100% attribution of these to female authors would not bring women's publication rates equal to men's. While a comparison between the figures in journal authorship and book authorship would also be enlightening, the data are not as readily available. In the United States, for example, Bradley and Dahl (1995) found that women and men produced similar numbers of papers, but that men produced more books than women, a pattern that they attribute to men being more likely to direct the major excavations that turn into book publications. While we suspect that the impetus for book publication in Australia derives from slightly different sources (e.g. doctoral theses as opposed to major excavation projects), given the disparity between male and female publication rates in journals we would expect a similar trend to be evident in the rates for book publication.

When the rates of journal publication are compared between the three major journals, a slightly different trend is apparent (Figures 5-7). While publication rates for men generally exceed that of women, the rates are not consistent across all three journals. In these graphs, 'female' and 'male' include all articles authored or co-authored exclusively by women and men respectively. Unknowns have been excluded from the graphs. The most noticeable difference is between the rates evident in AJHA, where female authorship comes closest to matching that of males, compared to those in AA and AO. There are six years in which the female publication rate in AJHA either matches or exceeds that for males, compared to only one for AA and none for AO. While it is not clear precisely what combination of factors this reflects, in the United States Chester et al. (1995) found significant differences in the topics of research interest pursued by women and men. While women demonstrated a greater interest in education, ethnicity, class and status, men showed a greater interest in artefact analysis, maritime archaeology and the military. Topics such as archaeological theory and the analysis of towns and plantations showed similar rates of interest. The greatest disparity was in publications on gender, with women outnumbering men at the ratio of more than 2:1 (Chester et al. 1995:217). It is interesting to note that the slight variance in publication rates between the three Australian journals could also be construed as representing broadly different research interests (i.e. pre- versus post-colonial archaeology), albeit with some degree of overlap. When consolidated into one graph, however, with female publication rates for each journal compared to the total male publication rate, this trend is less clear (Figure 8). In the two decades between 1984 and 2004 AA and AJHA have a similar incidence of the highest number of female publications in particular years (12 years for the former; 11 for the latter) compared to only four years for AO. In the United States, Chester et al. (1995) found that the success rate of men's and women's publications in historical archaeology was roughly equal but that men submitted substantially more publications than women. Men seem to be submitting substantially more publications to Australian journals as well.

Both publication rates and the quality of publications can be enhanced through co-authorship. Co-authorship produces an increase in publication rates through more than a numerical equation. Co-authors put pressure on each other to work to a timeline, and co-authorship can enhance the quality of a publication through bringing to the work a different body
of knowledge and skills. Some researchers (e.g. Cole and Zuckerman 1984) have found that women and men co-author at roughly the same rate, while others (e.g. McDowell and Smith 1992) argue that co-authors are usually colleagues of the same sex. One implication of this is that there will be less co-authorship opportunities for women in disciplines that are largely composed of men. McDowell and Smith (1992:79) argue that a workplace environment that gives women comparable opportunities for co-authorship to men would enhance female productivity. In the Australian journals co-authorship is clearly a contributory factor to successful publication rates, although the relative percentages of female versus male co-authorship follow a similar pattern to overall publication rates (i.e. men are sole authors and co-authors together on a greater number of publications than women) (Figure 9). In terms of our study, this implies that same-sex collegial co-authorship is not a significant factor in increasing parity between female and male publication rates. Figure 10 amalgamates these figures with co-authored papers according to the sex of the leading author. As is evident from the graph, this does little to change the overall pattern.

Another test of status within the academy is being called upon to review publications and grant proposals. The role of the reviewer is important, since the reviewer has direct influence on whether the project will be funded or the article or book published. In the United States, Chester et al. (1995) found that women were invited to write book reviews and to review grant proposals and the publications of their peers much less frequently than men. While comparable data on the grant review process are not available for Australian archaeology, the data on book review rates for women and for men show a pattern reminiscent to that of authorship (Figure 11). Male review rates average 40% higher than women, although, interestingly, the disparity in this area seems to have been decreasing over time.

Peer-reviewed publication outcomes are tied into many indicators of success in the academy, factoring heavily into employment, promotion and grant application processes. For women seeking advancement within the academy, publication rates can be part of a circular 'low status' bind: women don't publish at comparable rates to men, not because their papers won't be accepted, but because they don't prioritise them, or because they don't have confidence that their work will be accepted. However, studies elsewhere have shown that women and men have similar acceptance rates for publications, though women have lower submission rates (e.g. Chester et al. 1995). While we do not have figures for publication acceptance rates in Australia, we suspect a similar pattern, given women's low application rate for research funding (see below). Irrespective, it seems clear to us that this is an area where change lies in the hands of women, though this could be enhanced by targeted institutional support.

Research Funding
Since success in obtaining research funding is fundamental to academic progress, it is important to consider women's and men's relative ability to attract research funding. While the dominance of female Research Fellows in Figure 1 suggests that women are at least as successful as men at attracting research funds, it is also possible that the patterning is specific to that category of funding. It would be useful to have an analysis of archaeologists who obtained funding from the Australian Research Council's (ARC) Discovery and Linkage programs, the premier funding programs for archaeology in Australia (see http://www.arc.gov.
au), particularly in regard to the 'early career researcher' category. While such a disciplinary specific analysis is beyond the scope of this paper, it is worthwhile considering the ARC’s records on comparative success rates for applicants by sex. Consistent with patterns for the previous five years, the selection report for 2005 states:

In Discovery Projects, of a total of 6,787 applicants, 1,610 (23.7%) investigators applying were female and 5,177 (76.3%) were male. In recommended applications, 482 (20.9%) applicants are female and 1,825 (79.1%) are male. The overall success rate is 29.9% for female investigators and 35.3% for male investigators (Australian Research Council 2004).

While fewer women than men attract ARC funding, this should be interpreted in terms of women's unequal representation in the academy. Since women comprised around 38% of the academic staff of Australian universities in 2002 (Australian Vice Chancellors’ Committee 2003), they should be expected to obtain around 38% of the funding. The success rate of 29.9% for women and of 35.3% for men is not a matter for serious consternation in terms of women’s abilities to attract funds, given the highly competitive nature of the ARC funding programs and the relative positions of women and men within university structures (Australian Vice Chancellors’ Committee 2003; Department of Education, Science and Training 2001).

The application rate of 20.9% for women, however, is a matter of great concern, as it is almost half of what might be expected on a proportional basis. This is consistent with patterns in historical archaeology in the United States, where Chester et al. (1995:215-216) found that women had lower application rates than men, but broadly comparable success rates and, in fact, were more successful than men at obtaining grants at local and state levels. In Australia, it is likely that the low application rate by women reflects the position of many women as early or mid-career researchers and their concentration in junior positions (Australian Vice Chancellors’ Committee 2003; Department of Education, Science and Training 2001), with the higher teaching loads, lessened administrative support and lower publication rates that often accompany these positions. Again, a circular bind is evident here: women don’t apply for grants partly because of the teaching loads of junior positions and they are in junior positions because they have not obtained the large grants that facilitate promotion. Apart from this, the low application rate for women should be understood in terms of women’s perceptions of their own likelihood of success, which are shaped, both overtly and covertly, by the disciplinary environments in which they operate and the expectations current in wider society. In our view, the low application rate for women suggests that some women carry a small glass parasol above their own heads.

Discussion

This paper opened with a discussion of glass ceilings and asked whether one could be identified within Australian archaeology. This study demonstrates that, while more female archaeologists occupy full-time positions in Australian universities than was the case 10 years ago, the glass ceiling is still present in Australian academic archaeology. Our study identifies a two-tiered glass ceiling that impedes women in academic archaeology. The first is met by women early in their careers and prevents them from obtaining stable, tenure track positions within universities. The second impedes those women who gain employment in the academy from being promoted to the upper echelons. While our research focuses on the status of women in Australian academic archaeology, a more comprehensive study is needed, one which explores the patterns for women in other forms of archaeological employment.

The trope of the glass ceiling raises an image of people locked beneath a transparent ceiling but able to see through to the world above them. Since glass is clear, those who are underneath such a ceiling might not notice it at first. If they do, they may choose not to examine it too closely, as its ongoing existence is confronting and, since it is ever-present, affects their day-to-day life. This glass barrier only becomes apparent if people try to pass through it. In terms of Australian academic archaeology, the notion of a glass ceiling is supported by an
assumption that these invisible barriers to advancement are imposed from above, and that the ceiling is constructed by those with an interest in preserving the special benefits and privileges of their gender, ethnicity or position. While this is no doubt part of it (either consciously or unconsciously), we would argue also for a ‘glass parasol’ – a barrier that is equally invisible, hard and ostensibly impenetrable, but one that is fashioned by the gender ideologies and gender roles ascribed to, and participated in by, both men and women (Figure 12). The glass parasol consists of those impalpable barriers that prevent qualified women from advancing to upper-level positions, and relate to gender ideologies of appropriate behaviour and gender roles enacted in activity patterns, social relations and behaviours in specific cultural settings (cf. Conkey and Gero 1997). While there may be some hope of glass ceilings being positioned at different heights in different institutional or disciplinary environments, the glass parasol is carried around by the individual, shaping their experience of each disciplinary or institutional culture. In contrast to the glass ceiling that is imposed from above, the glass parasol is fashioned by society as a whole and held by the woman herself.

This study suggests that there are systemic barriers to women’s progress in Australian academic archaeology. The data show that female archaeologists are having difficulty in gaining entry-level employment in Australian universities and that women are under-represented in senior positions. While the figures relating to publication rates and grant submissions suggest that in some cases women’s progress is impeded by glass parasols, the discrepancies are too great to be attributed solely to this. Glass ceilings, in the form of cultural and institutional barriers, exist at the level of entry to the academy and advancement to the most senior levels. This a matter of serious concern, not only for the individuals involved, but also because of the skills and diversity that are being lost from the workplace. Perhaps the most serious concern of all is that these patterns are not unique to archaeology, the academy, or Australia. A recent study of professional employment in Wales, for example, found that:

“Many believe it has become even harder for women to win promotions and hold on to them, and that not only is the glass ceiling still very much present, but women are also aware of hitting it at an early stage in their careers,” said Paul Clutton, director of Cardiff’s Professional Recruitment Wales (Barry 2005).

The patterning we identify in this paper occurs despite recent changes aimed at redressing restrictive employment practices. While there is variation in different institutions, these changes include anti-discrimination legislation, the mandatory training of appointment committees in equity issues, and the opportunity for those seeking promotion to discuss career interruptions due to child-rearing and family responsibilities. In terms of advancement within the academy, the problem may lie more with reluctance on the part of women to apply for promotion than with discriminatory practices:

The statistical evidence demonstrates that once women apply for promotion, they are successful, and in some cases, particularly at senior levels, they are more successful than their male colleagues. The success rate demonstrates that the quality of applications by women is not the problem in the promotion processes in universities. Women are applying in approximately equivalent numbers to the eligible pool, and when they apply for promotion they are relatively successful. In contrast to the mid-1990s when promotion for women was constrained at level C, it seems that moving from level C to D is the new barrier to promotion for academic women. The matter of contention is the exceedingly slow rate of progress towards gender equity. Women are still significantly under-represented at senior levels in Australian universities. Promotions policies and processes in place do not explain the lack of progress overall. Other factors, including more diffuse cultural understandings, must be operating. Without overcoming these, using the existing rate of a five per cent increase in the number of women at level E in seven years, achieving equal numbers of women and men in the professoriate would take another 49 years (Winchester et al. 2005:35).

This study has been followed by a number of studies commissioned by the Australian Vice Chancellors’ Committee, including two ‘action plans’ for women employed in Australian universities, the most recent of which was issued in April 2006 (see Australian Vice Chancellor’s Committee 2006). In a report commissioned by the Australian Government’s Office of Women, Burton (1997) identifies four major impediments to women achieving equity in the workplace:

- Stereotypical beliefs about women’s roles, attributes, preferences and commitments.
- Selection processes for entry to senior and executive management.
- Non-merit based Human Resource Management (HRM) systems and practices.
- Inadequate provision to women of access to formal and informal developmental opportunities.
Again, the discussion is framed in the language of victimhood and, while the points have some validity, even nearly 10 years later (sadly), women are not going to feel powerful enough to move forward if they think of themselves – or allow others to think of them – as victims. While detailed consideration of all the factors raised by Burton is beyond the scope of this paper, we would like to discuss briefly the influence of stereotypical beliefs. The 1990 Catalyst survey of Chief Executive Officers of Fortune 500/Service 500 companies found that stereotypes regarding women in business included: viewing them as less committed to their careers than men; not tough enough; disinclined to work long or unusual hours; too emotional; not aggressive enough (or, conversely, too aggressive); lacking quantitative skills; not wishing to relocate; and having difficulty making decisions (Catalyst 1990). One of the most ubiquitous stereotypes is that the combination of a successful career and a happy family is more difficult for females than for males. In a recent survey of 120 top British employers 32% attributed the balancing of work and family responsibilities as the principal obstacle to women’s advancement (Equal Opportunities Review 1996:6). A recent expression of this view by Harvard University President, Larry Summers (see Summers 2005), caused great controversy and a subsequent retraction (see Healy and Rimer 2005; Rimer 2005). However, the issues are much more complex than this, and always have been. For instance, only 3% of women managers interviewed in a 1984 Wall Street Journal/Gallup survey cited family as the most serious obstacle in their careers, while 50% named reasons related to their gender (Burton 1997). Similarly, only 7% of female managers left their positions for family reasons in a Galagan survey cited by Hall (1995), while 73% left because they saw limited opportunities for women in their companies. Despite this, managers are still inclined to believe that the main impediment to women’s career progress is their inability to find a balance between work and family (Hall 1995:12).

One criticism of studies such as we have undertaken here is that since the academic turnover in universities is slow, it takes a long time for structural changes to show. However, this criticism does not explain patterning at the entry-level of academic employment, and, given that women have had a substantive (though not equal) presence in the academy for almost 20 years, we doubt if it explains the differences in promotion profiles. While slow turnover in the academy may have some influence, in our view there are many more indices of performance that need to be addressed if we are to begin to understand the patterning identified in this paper. These indices include geographic mobility, networking, fundraising, consulting, teaching, age disparities at academic levels, and managerial (administrative) responsibilities. A recent study by Sabatier et al. (2006:322) has found that:

promotion to professor is linked to different criteria for male and female academics. To be promoted, women have to demonstrate greater involvement in the different dimensions of scientific activity than men ... [their] careers are influenced not only by the number of publications, but also by personal involvement in different dimensions, [such as] research management, fund raising and research.

With this in mind, a useful way to extend our current study would be to assess the effect of other performance indicators on the speed of both women’s and men’s careers: Does the same complex of factors affect male and female progress in Australian academic archaeology? Moreover, we need to explore the reasons behind such patterning, not only within Australian academic archaeology but also in terms of the Australian academy as a whole. This would furnish a dataset to extend other recent studies in Australia (see Spoor and Lewis 1997) and allow comparison with other countries. When considered globally there are patterns that can seem surprising. For example, in Europe, Turkey has the highest percentage of female full Professors, while the Netherlands has the lowest (Boukhoba et al. 2000).

Finally, we would like to draw attention to an issue that is pertinent to the younger generation of female archaeologists – those who, in many ways, are the target audience for this paper. Given the changes that have occurred within Australian academic archaeology over the last 20 years, young women may consider that equity has been achieved and some, moreover, may wonder if there had ever been a serious problem to be redressed in the first place. From a contemporary perspective, it could be a simple matter to overlook the many earlier women with comparable merits who tried but could not find their place in the academy. In some ways, the impetus for this paper came from the threat of neo-conservatism, in which successful women assume that all women could achieve the same success as them, if only they were willing to pay the price (see Pipes 1999), and whereby women who have yet to accomplish their goals assume they are on a playing field that is level with that of their male peers. The data analysed in this study show that this is not the case. While the climate of Australian academic archaeology may have warmed a little, it is still chilly, particularly at entry and upper levels. Neither glass ceilings nor glass parasols are likely to contribute to any kind of disciplinary warming.

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The initial ideas for this paper were scoped out as a small part of the article ‘Gender and (the disciplinary culture of) Australian archaeology’ (Smith and O’Donnell in press). The results identified in that paper gave us the impetus to conduct the research that is published here.

As you can imagine, compiling the data published in this paper was what Americans might call 'challenging', especially in regards to current employment in university departments. Since people were continually changing institutions, being promoted or obtaining new fellowships, the database changed considerably between the first draft of the paper and the last, although the overall trends remained the same. In order to check the figures we had to go back to key people several times, so we are very grateful to those people who helped us calculate up-to-date figures for their academic staff. In particular, we would like to thank Jane Balme, Annie Clarke, Bruno David, Iain Davidson, David Frankel, Maciej Henneberg, Tom Hilliard, Rosalinde Kearsley, Susan Lawrence, Ian Lilley, Jane Lydon, Tim Murray, Sue O’Connor, Dan Potts, Frank Sears, Ken Sheedy, Matthew Spriggs and Sean Ulm.

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Endnotes

1 We note in passing that several universities with a small number of archaeological staff (Deakin, Charles Darwin and Charles Sturt) no longer have archaeological programmes. There seems to be a point at which the numbers become so low that the entire programme is endangered. We were surprised at the level of fluidity in university employment profiles: our original data were compiled in February 2005 and when we updated our figures in April 2006, there had been staff changes in nearly all universities.

2 The data were compiled from information on institutional websites, cross-referenced with Faculty handbooks, and confirmed by Heads of Departments and/or individual staff members. In those cases where more than one department employed archaeologists, the data were combined to give a figure for the university as a whole. We excluded non-salaried positions, such as Emeritus Professor or Adjunct Professor, casual, sessional positions, such as tutors, and part-time positions. The position of Reader was recorded as Associate Professor, as it is equivalent. Research fellowships have similar levels to lectureships, but within a research track: Postdoctoral Fellows as the equivalent of a Level A or B Lecturer (not all postdocs are the same). Research Fellows are the equivalent of a Level C or D Lecturer, and professorial Research Fellows are the equivalent of a Level E Lecturer. These data do not take into account interdisciplinary collaborations, or include scholars who work closely with archaeologists, but do not identify as archaeologists (e.g. people who have developed direct dating techniques for archaeological material, but are not archaeologists per se, or palynologists who work on archaeological questions) or those who draw upon archaeological data in the normal course of their work but primarily identify with another discipline (e.g. some ancient historians). The database is small, particularly for some classifications, and we have taken this into account in our analysis.

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