

# Women in Construction: An Early Historical Perspective

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Construction is historically described as a non-traditional occupation for women. The majority of the documentation related to working women dates back to the 1950s and includes very limited information about the construction industry. It is crucial to establish a historical framework to properly describe and discuss issues related to women in construction. The purpose of this paper is to present an historical perspective of women's roles in construction, which in reality dates back to the medieval period, if not earlier. This information may serve as a starting point for construction educators when discussing diversity and development issues in the classroom. Written and graphic examples of women working in construction as early as the 13<sup>th</sup> century are included in the paper.

**Keywords:** Women in Construction; Minorities; Construction History.

## Introduction

Construction work is historically described as a non-traditional occupation for women. The United States Department of Labor defines "non-traditional occupations" for women as those in which women comprise 25% or less of total employed. In 2008, women accounted for 8.2% of the construction managers while construction laborers accounted for 3.3% of the construction workforce [DOL, 2009]. Related industries also show similar trends where women architects (24.8%), engineering technicians (18.5%), industrial engineers (14.9%), other engineers (11.5%), and civil engineers (10.4%) are also classified as non-traditional [DOL, 2009].

Since the 1960s, there were several efforts to increase and encourage opportunities for minorities and women in the business and workforce. Creation of opportunities for Disadvantaged Business Enterprises (DBEs), Minority Business Enterprises (MBEs), or Women Business Enterprises (WBEs) are among these efforts [Piper, 2007]. Earnings for women also show differences compared to their male counterparts. In 2007, full-time working women had median weekly earnings of \$614 (wage or salary) which is about 80% of the \$766 median for their male counterparts [DOL, 2008]. This ratio has grown since 1979 when women earned about 62% as much as men.

The issues related to women in construction exist internationally and, over the years, have been analyzed from affirmative action [Piper, 2007], cultural [Hopkins and McManus, 1998; Watts, 2009], job satisfaction and development [Dabke et al., 2008; Jones et al., 2008], and perception and professional acceptance [Perreault, 1992; Pinch, 2007; Enshassia et al., 2008] perspectives. Professional societies and unions take the lead in addressing these issues and advocating for women in the work place. In construction and related industries, there are several education and advocacy efforts by, among others, National Society of Women in Construction (NAWIC), Women Construction Owners and Executives, Professional Women in Construction, the Society of Women Engineers (SWE), and Coalition of Labor Union Women. Diversity and participation of minorities and women in construction and related industries are also emphasized in professional degree programs. Several universities have established and support student chapters of the professional societies such as NAWIC and SWE and diversity is actively discussed in classrooms.

The majority of the documented information related to working women dates back to the 1950s. There are several efforts highlighting women's participation in the workforce starting in the 19<sup>th</sup> century (for example Harvard, 2010) but these efforts include very limited information about the construction industry. It is crucial to establish a historical framework to properly describe and discuss issues related to women in construction. The purpose of this paper is to provide an early historical perspective of women in construction, for which written documentation dates back to the medieval period. This information may serve as a starting point and provide an historical framework for construction educators when discussing diversity and development issues in the classroom. The highlights noted in this paper also demonstrate parallel issues and perceptions between historical periods and the social environment of today's construction industry.

## Historical Perspective on Building Construction and Conditions

In order to understand historical working conditions properly, it is important to describe building construction as a profession in its historical setting. Woodward describes the construction profession in the 16<sup>th</sup> century as [Woodward, 1995] :

“Building craftsmen were a different breed. Strictly speaking many of them were not wage-earners in the modern sense of the term. Master craftsmen were ‘small masters’ or petty entrepreneurs, possessing their own tools and often supplying the raw materials for the task in hand...In supplying raw materials and the labour of others early-modern building craftsmen resemble the small-scale jobbing plumbers and joiners of modern times, who make profits from their activities in addition to the ‘wages’ they receive for the hire of their own time, rather than true wage-earners who toil on the shop floor. Nevertheless, in early-modern accounts building craftsmen frequently resemble wage-earners pure and simple. This is because of the nature of much building work.”

This description highlights the project-based nature of the construction work which is closely related to and dependent on skilled trades and an entrepreneurial spirit. It is possible to argue that the historical nature of construction resembles today’s construction industry, but at a smaller scale and level of complexity.

Although construction was a major economic factor in medieval and early modern Europe, references to women’s role in these activities were limited. Roff notes that (2010):

“When reading the literature on the history of architecture, construction, and the related trades, one has the impression that women made virtually no contribution.”

In the same article, Roff argues that it was the social environment, structure of occupational and guild systems, and definition of “work” that contributed significantly to this observation by both historical and contemporary authors. In reality, women were working on construction sites and in the building trades in earlier historical periods, however it was socially unacceptable to record this labor as work, especially work that might be earning a wage. Women were perceived to be physically incapable of heavy labor, and it was considered to be immoral, since her primary duty was to the care of her family. Historical authors also wrote that it was immoral for a woman to accept wages for her labor, since it was her father’s or husband’s duty to provide for her. When labor earnings were recorded in municipal tax documents, their names were rarely ever recorded and were reduced to a simple indication of gender such as *mulier*, *mullyer*, *dona*, *femme*, or *wench*; or they were simply considered under the household name without a specific occupation or work definition.

## Participation of Women in Construction Workforce

Although there is some limited evidence of women working in construction in the ancient world, one of the earliest written records of women working on a construction site is noted in 13<sup>th</sup> century Spain. Here, a group of women were recorded as day laborers working on stone and wood structures in Navarre [Roff, 2010]. Roff has compiled data on women construction laborers and materials suppliers working in England, France, Germany and Spain dating from the 13<sup>th</sup> to the 17<sup>th</sup> centuries. General statistics such as the number of women working as day laborers or in the buildings trades cannot be made since the types and quantity of documentation varies greatly from region to region, however the evidence that has come to light is remarkable and can provide interesting parallels with women’s plight in today’s industry. With this data, three major issues can be addressed here:

1. The position a woman could attain in the industry,
2. Potential earnings, and
3. Social perceptions of women working in construction.

Historically, single and very poor married women worked as low-paid day laborers on construction sites performing unskilled tasks such as carrying water, digging ditches for foundation walls, thatching roofs, and mixing mortar. Women were often hired in gangs and, in some cases, they were slaves. The instances found of women working in the building trades occurred within the family structure; at times, middle-class women had an opportunity to learn a trade or business under the tutelage of their fathers or husbands. Numerous city records provide examples of women working with their fathers and husbands in the building trades as masons, carpenters, doormakers, and others crafts in 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> centuries France, Spain and Germany [Roff, 2010]. Access to particular trades and crafts was increasingly difficult during the economic crises of the 16<sup>th</sup> and 17<sup>th</sup> centuries, not only for women but also for outsiders, because membership in the guilds was usually through inheritance along the male line. There are no cases of a woman being in a position of management, unless her husband died and the craft guild allowed her to continue the family business. However, when aristocratic and noblewomen were the primary patron of a construction project, they did exert influence on the design and management of the project (clear examples can be seen in Greenhill, 1976, Thys-Senocak, 2006, and Gaudette, 2010). There are several studies that describe women's patronage of architectural projects in Europe as well as Byzantine and Muslim world, which can be found in the bibliographies of the works cited in this paper. This recent research can contribute significant resource material for construction educators.

During the construction of a cathedral in 15<sup>th</sup> century Toledo, it is noted that the women were paid about half of the rate for male workers, but about the same as the young boys who worked for the masters, a common practice observed at other sites in western Europe. Woodward provides a similar example from 17<sup>th</sup> century England [Woodward, 1995]:

“... at Durham in 1687 John Baker and his son worked for four and a half days and ‘Margaret Baker his wife’ for two days ‘repairing the flags in church and cloisters and carrying away the dirt’ – John received 12d a day, compared with the normal 10d for labourer, and his son and wife each got 6d a day.”

Although the gender segregation and different pay scales are very clear in these examples, they support the fact that women were participating in construction projects.

Regarding how women were perceived who engaged in this type of work, the voices of many historical authors make it clear that women should be discouraged from working outside the home, and especially should not engage in manual labor. Women who could not adhere to this prescription were considered to be of the lowest class in society, just one step above the class of prostitutes. Their poverty was seen as a punishment for sin. These attitudes led to the vague recordings of women's activities in historic documents and to women's historic invisibility on the construction site. However, there were certain crafts related to building design that were deemed acceptable employment for women, such as sculpting, painting and the weaving of tapestries, which were believed to uplift the mind and maintain the virtue of chastity [Roff, 2010].

In addition to written documentation, there is graphic evidence in European illustrated manuscripts and books that demonstrate women as both laborers, craftswomen and as patrons of building construction. Some of the imagery appears to be literal documentation of work, however the majority of the known examples use the idea of a woman as patron or as laborer in a symbolic context. One well-known example is a miniature in Christine de Pisan's “The Book of the City of Ladies” (*Le Livre de la Cité des Dames*). Figure 1 shows the scan of the original miniature. In this image, Christine de Pisan is instructing her ladies to actively construct a city themselves in which they could conduct model lives.



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 1. Miniature from Christine de Pisan's The Book of the City of Ladies (1405)

Some comparisons can be made between the historic context and contemporary society. Women today are achieving skilled and managerial positions in the construction industry, but they continue to lag behind their male

counterparts in their participation as manual laborers and in the pay scale. A report by the United States Congress Joint Economic Committee (2010) states that:

“... While the pay gap has narrowed over the last 25 years, the average full-time working woman earns only 80 cents for every dollar earned by the average full-time working man. Certain industries remain heavily gender-segregated. In addition, millions of women are struggling to juggle work outside the home with family care-giving responsibilities.”

In terms of how women are perceived and the social barriers they encounter within this profession, their status has certainly improved in the 21<sup>st</sup> century, yet there are still barriers to their success. Menches and Abraham (2007) summarize the perceptions of women in today's construction industry:

"The top five most frequently cited problems encountered by women in construction—or barriers to their success—included:

1. Slow career progression that contributes to disillusionment with the industry and its culture;
2. Difficult work–family balancing act, including primary childcare pressures;
3. Attitude barriers caused by male dominance;
4. “Job hopping” to overcome career barriers caused by slow advancement and an inflexible work structure; and
5. Overtly masculine culture that consists of conflict and aggression.

However, the single largest contributor to women leaving the construction industry—and women failing to choose construction as a viable career—was the culture."

## Conclusions

Construction is considered historically, as well as today, to be a non-traditional occupation for women. There are issues related to available opportunities, job satisfaction, equal compensation and acceptance as professionals. Despite the difficulties and barriers for success, women have been involved in construction throughout history and evidence can be documented as early as 13<sup>th</sup> century. It is important to note here that gender segregation and compensation issues are not, and historically were not, limited to construction industry but observed as general phenomena.

Establishing an historical background is critical in discussing issues related to diversity and development. The purpose of this paper was to provide an historical perspective of women in construction and highlight the similarities to today's construction industry. A detailed study in this subject would help establishing a chronological history and may provide much needed information and motivation to address these issues.

The social, legal and policy efforts in the last few decades created an environment of improvement and discussion for women in construction. A well-established background and history would certainly help these efforts while recognizing the full extent of the population participating in the construction industry.

There is no doubt that studying the history of a profession/industry is also crucial for the development of the next generation of professionals. Unlike architects and engineers, future construction professionals suffer from a significant lack of historical documentation. In general, construction history research efforts would benefit not only women in construction but all construction professionals.

Despite its unique nature and cultural challenges, construction industry still offers great opportunities. Perhaps the following quote from a woman in construction summarizes it well [Hopkins and McManus, 1998]:

"The construction industry in the past 25 years has gone from a "good ole boy" regime to cutting edge technology. With that major revolution, the industry has become more and more color blind and indifferent to gender. The "bottom line" is crucial for survival in the 90's and beyond. The uphill fight isn't over yet. But women now can expect and demand to move up in their career path. Our industry is fast paced,

challenging, exciting, never boring, and fun!! I would encourage any woman to consider a career in construction."

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