Golden Age or False Dawn? Women Architects in the Early 20th century

Lynne Walker

Arguably the two most important strands of twentieth century architecture in Britain are the Modern Movement and the entry of women into the architectural profession. The pioneering factory office in Derby of 1930-1, designed by the architects, Norah Aiton and Betty Scott, represent both of these. Although clearly a landmark building, it was not featured in modernist histories of twentieth century architecture, even though in the terms of modernist historians, it is the earliest industrial building of the Modern Movement in Britain: a showcase for the 'new materials'; technically innovative; carefully detailed; and furnished with some of the most highly regarded avant-garde furniture of European modernism.

The entry of women into the architectural profession was led by the pioneer generation of women architects in the early 20th century. These women trained in architectural schools, identified with professionalism, joined the RIBA, set up on their own in practice, and were illustrated and critically assessed in the building press. Central to their success, and to the modernisation of the architectural profession in Britain, was systematic architectural education. I will not only focus on women's inclusion or exclusion from architectural practice and history in architectural history but tease out issues of collaboration, attribution, and recognition. I want to consider the scope and values of architectural history. Who are the subjects of architectural history? Are we only interested in a history of architects and buildings? If so how does this relate to the actual nature of architectural practice?

Women and architecture in the 19th century

Proposals for women's architectural training in the late nineteenth century generally did not acknowledge that middle class and upper class women had long been designing buildings within the amateur tradition, where architecture was an unpaid, leisure pursuit. Nevertheless, professional practice in the nineteenth century was outside the norm for women at this time. The Institute of Architects, founded in 1834, was, undeniably, a male preserve: to such an extent
that the founding fathers of the Institute did not bother to exclude women from its membership by rule. For the emerging architectural profession, women in their ranks were quite simply unthinkable. The architect-members of the Institute were to be, in the words of the Secretary, T.L. Donaldson, "men of taste, men of science, men of honour". The RIBA did not admit women until 1898, although during the 19th century and early 20th century some women, such as Violet Morris, (who came from a family of architects and was trained by her father) did practice as professional architects outside the auspices of the RIBA.

**Ethel and Bessie Charles and the Entry of Women into the Profession**

The debates about architecture as a profession for women in the 20th century centred on the central institution of architecture in Britain; the Royal Institute of British Architects. The successful application of Ethel Charles in 1898 and her sister, Bessie Charles in 1900 to become members of the RIBA brought debates about women’s role in architecture to a head and provoked a fire-storm of reaction. Their presence was accepted by some male supporters but the institutional response was legalistic and bureaucratic resistance. At the RIBA, petitions circulated, barristers were consulted, the Bylaws and Charter of the Institute were examined, and RIBA Council came within one vote of revoking its members' decision to admit women.

It was in this context that Ethel Mary Charles (1871-1962) and her sister Bessie Charles entered the architectural profession. They received their training in the office of George and Peto. But they also wanted to attend the Architectural Association, the architectural school where students could supplement their training in an architect’s office with a more systematic course (1893). However, they were refused entry. Ethel Charles supplemented her training by doing part of the Bartlett course - in which she received distinctions. Sketchbooks and topographical drawings in the RIBA Drawings Collection record her travels in England, France and Italy. After completing her time with Ernest George, she worked as an assistant to the Arts and Crafts architect, Walter Cave, and travelled in England, studying Gothic and domestic architecture. In June 1898, she sat the RIBA examinations, almost unnoticed, and her name went forward for Associate membership. Although there was a last ditch stand by RIBA members who believed that 'it would be prejudicial (sic) to the interests of the Institute to
elect a lady member’. Ethel Charles was elected with all other proposed new members 51 for and 16 against.

Charles designed mainly domestic work, such as labourer's cottages. Running a small practice from York Street Ladies Chambers, she often worked jointly with her sister, Bessie Charles, who became the second woman member of the RIBA in 1900. While the line was being redrawn slightly to extend women’s sphere to domestic architecture, under no circumstances were women allowed to design 'the best architecture' or the most financially rewarding, which in Edwardian Britain meant large scale, highly capitalized urban building projects of Edwardian Baroque. Ethel Charles stated publicly that the biggest opportunities for architects of her generation lay in commercial architecture, and, like her contemporary, Clotilde Kate Brewster who designed 'a municipal palazzo in Rome', she tackled large scale design with a prize winning church in Germany (1905), which is untraced. However, at the beginning of the 20th century, women's architectural careers were generally restricted to a domestic ghetto, for which, it was reasoned, their experience in the home and femininity particularly suited them.

Alas, so it was that Ethel Charles, the first woman member of the RIBA, holder of its Silver Medal (1905), international competition winner, and the first woman to address an architectural society in Great Britain built, with few exceptions simple, quiet houses, often for women clients, instead of the experimental large scale projects which she admired.

Although Ethel and Bessie Charles had made a breakthrough into the male domain of professional architecture, few women followed. It made little immediate difference for other women and few joined them in the ranks of the architectural profession. The Charles sisters' struggle shows that at the precise time women were making their entry into the architectural profession, the pressure to maintain the traditional role and position of women intensified. Instead of a rush of women into the architectural profession after the Charles' admission to the RIBA, the number of women architects actually fell significantly, from nineteen in England and Wales in 1891 to six in 1901 and seven in 1911. It spite of its own image of
itself as sympathetic, retrenchment and self-interest, not opportunities for women, were the themes of the architectural profession in Edwardian England.

At the beginning of the twentieth century, the debates around women and architecture focussed on socially constructed sexual differences. With the building slump of 1907 a new emphasis was on unemployment within the profession and competition for jobs between women and men. The idea that women were interlopers in the male workplace held sway long after the institutional barriers had been breached at the RIBA. Ideologically, there was only the merest chink in the rigid sexual division of labour which assigned the practice of architecture to men until the conditions of the First World War and the militant suffragist movement combined to force a reappraisal of women's role. The architect, Arnold Mitchell expressed the entrenched nature of these attitudes which circumscribed women's activities, when he spoke of the 'very serious problem...this problem of sex and the woman taking up work which the man up to the present had been accustomed to consider his own separate province.' Fear that women would take jobs, and lucrative ones at that, which traditionally had belonged to men was often heightened by fears of unemployment---male unemployment.

**Architectural Education: The Architectural Association**

Although women played a variety of roles in British architecture before the twentieth century, they did not participate in the architectural profession in substantial numbers until after the First World War. The demand for personal autonomy and financial independence and the search for professional employment for women, (promoted by the Women's Movement) combined with the development of systematic architectural training in schools of architecture which were opened to women on the same terms as men. The Architectural Association opened its doors in 1917 during the First World War when war conditions---most directly, the need for students--and the residual pressures from the campaigns for women's suffrage and employment combined to force a change in policy.

Training in architects’ offices and getting places as assistants remained important in the 20th century. And some architects did take female pupils, for instance, Tait
& Burnet, C.F.A. Voysey and perhaps more surprisingly, Lutyens and Reginald Blomfield. Nevertheless, as long as the main avenue into professional practice was through the pupilage system - the one-to-one apprenticeship of pupil to Master - the resistances to women’s entry into architecture as professional architects were successfully maintained. It was only with the introduction of systematic architectural education within academic institutions that women began to receive the training, support and confidence necessary for professional practice.

Although most architectural schools have no records of when they first admitted women, the Glasgow School of Art (c. 1905) and University of Manchester (1909) are the earliest now known to have accepted women students. Scotland seems to have been more advanced than England in architectural education for women; Edith M. Burnet Hughes was awarded the Diploma in Architecture in 1914 from the Aberdeen Art School where she later taught (1915-18). The Architectural Association, which eventually produced the most successful group of women graduates, at this time had only just begun to open its doors to women (1917).

By the 1920’s, less than a handful of women were taken into the RIBA: Notables include Gillian Harrison, (née Cooke), Eleanor K.D. Hughes, and Winifred Ryle, later Maddock) and Gertrude W.M. Leverkus (1898- ). It was not until 1931, that Gillian Harrison, formerly Gillian Cooke (1898-1974), became a Fellow of the RIBA, the first full member. Gillian Harrison’s work was typical of architecture in Britain in the 1920s and 1930s, drawing on both traditional and modern styles.

‘Woman as Architect’
Women's place in the profession was envisaged and inscribed by Robert Atkinson, head of the AA School in 1917: "...women would find a field for their abilities more particularly in decorative and domestic architecture rather than the planning of buildings 10 to 12 stories high."

Nevertheless, that first spirited generation of women architectural students accepted no such distinction, and they trained alongside male students in the studios, taking part fully in the life of the school. Architecture's professional status
allowed its members to feel relatively removed from the hurley-burley of the commercial world and it was therefore thought appropriate to the class and position of the young women who entered its ranks generally from the upper middle class. Architectural students often came from progressive families who supported the idea of education and professional training for daughters and after the vote was won in 1918 and fully in 1928, employment, professional qualifications and financial independence headed the feminist agenda. Architecture was recommended as a ‘suitable’ profession, and the AA was the place for young women to train.

Family connections were very useful in getting into architect's offices for professional practice, and in obtaining clients. AA women students also frequently had an architect, family member or friend who became a role model. The relative affluence of AA students gave them mobility, which enabled them to travel widely at home and abroad. Norah Aiton, who went around the world after finishing her AA diploma, visited Holland a number of times during her student days, gaining first-hand knowledge of modernism and important developments in contemporary architecture. The architect, Mary Crowley dated her conversion to modernism to the AA trip to Scandinavia and the Stockholm Exhibition of 1930.

**Conditions: Training**

It is my view that the Beaux-Arts training which dominated the architectural syllabus, in part gave women the confidence and experience to design for the public sphere---to break out of the 'domestic ghetto' and to design large scale public buildings. The projects set were large scale, classical in style and intended for the public sphere. The image of the artist-architect as well as Beaux-Arts training, both featured drawing as central to the architect's education and role. Architecture's status as an art was posited in part on the fact that drawing was a central requirement and skill of architectural training and practice. Women were often advantaged by its importance, as many had both preparation and skill in drawing. The ability to draw discovered in childhood was frequently a prime stimulus in directing women to architecture, and good preparation for architectural school.
The work of many talented women students in the inter-war period was illustrated in the *AA Journal* and many examples happily survive in the RIBA Drawings Collection. In 1924, half of the prizes at the AA went to women students, and many AA women in the inter-war period won prizes and competitions, often with public buildings or in town planning.

**Breaking the Mould: Stratford and the Public Sphere**

In 1928, Elizabeth Scott, a recent AA graduate, won the competition for the Shakespeare Memorial Theatre at Stratford-upon-Avon, which Professor A.E. Richardson described as "The first important work erected in this country to the designs of a woman architect." In fact, Elizabeth Scott's victory galvanized British women architects and students alike; her successful design of this great cultural plum was seen as a victory for all women and as evidence of their ability to obtain large scale public commissions, breaking the stereotype of women as solely domestic architects.

Originally conceived in stone, the building is set in a garden and carefully related to its riverside site; a point which found favour with the assessors (Guy Dawber, Robert Atkinson, and Raymond Hood). In the assessors' words, "its architectural character shows great ability and power of composition; they liked its "largeness and simplicity of handling". It is a design of enormous technical complexity.

It is the attention to detail in such a large and complicated project which ensured its success. The use of decorative woods and metals characterizes the Stratford theatre. The joinery was of particularly high quality, using fashionable walnut, silky oak and less common English elm and burr elm, etc. The box office, doors, and general fittings were built-up of stainless steel, silver-bronze and bronze. The walls of the entrance hall are grey brick with a patterned stone floor in green, brown and grey. At the east end of the hall is the circular grand staircase. The solid, stepped balustrade of green Swedish marble is set against grey brick walls. Stepped windows follow the stairs and give views across the river through grilles. The fountain in Rust's Vitreous mosaic was designed by Miss Gertrude Hermes. The stair was floodlit from a concealed source.
Elisabeth Scott was conscious that she would have to work for a living and that in doing so in her chosen profession she would encounter discrimination; as she described it, 'it was only when I came to the point of having to decide definitely what I was going to do for a living that I thought I would see whether I could follow in my uncles’ [G.F. Bodley and Sir Gilbert Scott] -- despite the prejudice which exists against what few women architects there are.'

The Stratford Memorial Theatre from the River

The Press reaction to Elisabeth Scott's success was a combination of surprise, patronizing headlines and genuine admiration for her design, which was positively received and supported for its modernity (simplicity, horizontality, asymmetry; structural expression). Elisabeth Scott described how she conceived the design: "I spent about two months creating the building in my mind. I used to go for long tramps in the country, the hillier the better, and then worked it out on paper in about six weeks."
Among those to congratulate Elisabeth Scott on the Stratford theatre was the Women's Committee of the RIBA which was established in 1932 with the architect and feminist, Gertrude Leverkus, as Secretary.

The impact of Elisabeth Scott's victory was much-reported in the contemporary building press and in national and local newspapers. Gender was central to most stories, interviews and analysis about the design. The 'story' was – a theatre for the plays of England's greatest genius designed by a woman architect, who was both young and unknown. The theme of the battle of the sexes was repeated endlessly and the undisguised sexism of the press enabled headline writers to refer unflinchingly to Elisabeth Scott as a "girl architect". Headlines were patronizing, but admiring of Scott's success: “Men Rivals of Two Nations Beaten”; "Unknown Girl's Leap to Fame"; "Woman Wins/Bold Conception"; "Girl Architect Beats Men".

Most importantly, however, in the discourse about women's place in architecture, the arguments about women's biological limitations and their inability to design public buildings would never carry the same weight again after Elisabeth Scott's success in the competition for the Shakespeare Memorial Theatre, and the publicity which accompanied it. The public-private dichotomy in architecture which relegated women to the design of the home, as it assigned them generally to the domestic sphere, was challenged by the new role of woman as producer of culturally significant public spaces.

**Modernism**

In the 1920's and early 1930's, modernism, although not part of the taught course, was "on the buzz", as Mary Crowley, a student at the time put it. Modernism too had artistic overtones with architects exploring form and space freely like non-objective painters. The social programme of modernism also attracted women students, such as Aileen Sparrow, who designed a steel-framed pre-fabricated school for her AA thesis in 1937.

**Aiton and Scott: Aiton & Co.**

Norah Aiton gave up reading mathematics at Girton College, Cambridge to attend the Cambridge School of Architecture (1924-6). Later she went on to the
Architectural Association (1926-9) where she met her future partner, Betty Scott, whose planning ability and graphic skills made her a student star (1923-8), winner of the Public School Entrance Scholarship, the Second Year Prize for Art, and the Victory Scholarship awarded by the RIBA.

While continental modernism did not inform the syllabus at the AA until the mid-1930's, students from the early 1920's were aware of a broadly based modernism in architecture and the arts which included the Modern Movement, although they were still being taught according to Beaux-Arts principles and methods. Betty Scott experienced the advanced technology of American building practice by working for three months in a large New York firm, Bottomley, Wagner & White, while Norah Aiton crossed the world (accompanied by her parents) with art and architecture central to her itinerary. Underlying Norah Aiton's comments throughout the journal which she kept during the trip, and germane to the design of Aiton & Co., is the idea of modernity. Under the umbrella of 'the new', her serious concern for art, architecture and the condition of women was accommodated with the more immediate pleasures of dancing, cocktails and movies, as well as a tourist's delight in the excitement, danger and colour of urban street life.

Aiton & Scott's bold new offices in Derby were produced in the face of severely depressed trade to provide a corporate image, and indeed an advertisement, for the firm and its products. Its design, methods and materials associated the company with the state of the art technology required by its customers in their power stations, warships and ocean liners. The repeated use of metal tubing in decoration, detailing and furnishings represented and promoted the high pressure, high temperature pipes manufactured by Aitons. Most explicitly, the company's name was displayed in metal fascia letters and in a double vertical sign, fashioned in Frith's 'Staybright', a high quality stainless steel, which could take colour and was worked by welding, one of Aiton & Co.'s innovations in the pipe making industry. The colour scheme of red (vertical) and jade green (horizontal) signs, blue brick plinth, grey window frames, and white cement and grey stucco finishes made up what Norah Aiton called "my version of a De Stijil colour scheme".
As well as the colour scheme, Dutch architecture provided models for their use of the new materials, interlocking volumes, bands of metal windows and architect-designed interiors and furnishings. Through family connections, Norah Aiton knew Holland well. By her mid-twenties, she had visited that country at least five times (1919, 1920, 1924, 1925, and 1927/8), spending one undergraduate summer working in the office of P.J.H. Cuiypers. From there, she was introduced to the architecture of Berlage, Van der Velde and most significantly, Oud and Rietveld. Her visit to the Rietveld Schroder House made a deep impression, but it was the well-lit Van Nelle Factory, in Rotterdam (1927), which set the most apt precedent for "light, air, and cleanliness", which were priorities in the design of Aiton & Co.

While clearly familiar with Modern Movement principles, practice and concerns, Aiton & Scott were not involved in the rhetoric and dogma of continental modernism. In an interview which showed some disagreement between the partners as well as the unresolved nature of British modernism at the beginning of the thirties, Norah Aiton expressed her wish to specialize in "ultra modern designs", while Betty Scott, good pupil of Howard Robertson that she was, did not want to restrict herself to that approach: "I feel the most interesting feature of architecture is that one never need do the same thing twice."

Both were agreed on the possibilities and limitations of industrial materials. While factory offices of Aiton & Co. were built almost entirely of steel, glass and reinforced concrete, the steel frame construction (supplied by Burton Constructional Engineering Co., Burton-on-Trent), reinforced concrete floors, and horizontal bands of metal-framed Crittall windows were not an end in themselves. Their approach was flexible and, for all their fascination with Continental developments, thoroughly English, treating modernism as a style, and adopting the style thought appropriate for the building type in hand.

Architects such as Aiton & Scott were alive to exhibitions, through visits abroad and through periodicals. Norah Aiton, for example, attended two key exhibitions, the Paris Exposition des Arts Decoratif (1925) and the Stockholm Exhibition (1930). The partnership’s subscription to the *Architect & Building News* and *Cahier d’Art*, would have kept them abreast of the latest design developments,
such as the work illustrated by their friend and mentor at the AA, Howard Robertson, who published a two part article in the *Architect & Building News*, "Problems of the Interior: Rooms and Furnishings by Le Corbusier, and Jenneret and Charlotte Perriand". While seeing these designs as transitional, Le Corbusier was especially praised, and the commended furniture, it was noted, was available from Thonet.

**Imperial space**

If modernism could be adapted to the enlightened capitalism of the Aiton's factory offices, it also could represent the established order of the Empire. The Glasgow Empire Exhibition of 1938 had the "dual role to illustrate the unity of the British Empire and demonstrate the UK's own resources and progress." The highly praised Women's Pavilion was designed by Margaret Brodie in the modernist language of the exhibition using standardized components and materials.

**Position of professional women architects in 1930s**

The RIBA Women's Committee, mentioned previously, promoted the interest of women architects and encouraged and advised recent graduates and recorded cases of discrimination. Gertrude Leverkus, the Secretary of the RIBA Women's Committee (established in 1932) described the state of the women architects' position in 1935. Nearly thirty firms of architects were "entirely run by women. Although women 'specialized in domestic architecture', they also carried out hospitals, churches, factories, welfare centres, almshouses, etc, etc, as well, of course, as the Stratford Memorial Theatre." Leverkus pointed to the "increasing numbers" of "women in municipal offices" and "to the greatest drawback" for women architects "which is the lack of precedent, which makes it an extraordinary thing for a woman to be entrusted with large important work."

Women’s presence in architectural offices was still unacceptable in many cases, and the young architects who in the early thirties saw films in Gaumont cinemas or travelled to see them on the London Underground would not have been able to participate in their design, as women were not employed by either office as architects.
Arts and Crafts Movement after the First World War

The survival of the Arts and Crafts Movement after the First World War provided a framework for the work of both amateur and professional women in architecture, as well as the applied arts. In 1919-20, Ethel Mairet, the hand-weaver, designed Gospels, her house and workshop in Ditchling built in the local style: tile hung over a brick base with tiled roof and white-painted casements. The big weaving room with a balcony at one end was a double height space reminiscent of the Norman Chapel in Campden, which C.R. Ashbee restored, and where Ethel Mairet made her first experiments in weaving. In the Arts and Crafts way other designer-makers were called in: Ernest Gimson provided the external doors; George Romney Green made the oak refectory table, and Eric Gill cut the inscription for foundation stone.

In the Arts and Crafts tradition of experimentation with traditional materials, a young AA trained architect, Jessica Albery (1908-1990/1), built five houses of chalk pisé (1931-1953). In an autobiographical sketch, Albery described how she "had no formal education until 5 years at the Architectural Association School". Her mother suggested she should become an architect, but parental expectations were not that she would become "a serious professional"- which she did.

By 1931 when she completed her training, the RIBA had to "forego the office experience for Associateship because there was no work to be had". Through this circumstance, Albery was sent with her fellow student and family friend, Judith Ledeboer, to spend six months on Trollope & Colls building sites in the City of London where they were in "close contact with foremen and various clerks of works and allowed to explore" buildings under construction, such as the Royal Mail Office designed by Sir Edwin Cooper. They were on site for another six months at the Cable Company's building on the Embankment. Jessica Albery then "obtained office space with Kenyon Livock and worked for them when needed at 1/6 an hour". She also had space in the offices of two women who had set up on their own: first with Joyce Townsend, an ex-AA student, and from 1936 until the war she had a space in her friend Judith Ledeboer's office.
It was mainly during this time that Jessica Albery designed and built the chalk pisé houses at Hugh's Settlement near Andover. As she has written: "The settlement was a failure but the chalk houses were a success." The work went as follows:

"The first (a single detached house of 1932) was built by agricultural labourers under a plasterer foreman supervised by me, and by the founder of the settlement who had already built a pair of chalk cottages. But my houses were built to a new successful technique with rough blocks of chalk and straw and water put into a pan-mixer. Chalk is formed into rough blocks, and the wall built as though these blocks were bricks, only they are larger than bricks and are bedded in chalk and sand (walls outside 18"; inside only 4"). The house was warm in winter, cool in summer and sound proofed-between rooms by the chalk.

**Self-trained architects**

**Dora Gordine and Dorich House**

*Dorich House* in Kingston was designed in 1935 by the Russian-born sculptor, Dora Gordine, and built with her husband Richard Hare, a former diplomat, collector and academic. The house which provided a gallery, studio and living accommodation, is a highly individual personal essay. It mixes modernist, vernacular, classical and eastern elements (e.g. Chinese moon door in the interior) with a freedom and flair which often characterises amateur design.

Gordine had employed Perrett to design a studio for her when she lived in Paris and the slender vertical windows at Dorich House seem to recall that commission, while the flat roof and other modernist tendencies reference an earlier unexecuted house in Highgate designed for them by Godfrey Samuel.
Eileen Gray

Eileen Gray was trained at the Slade as an artist, but she evolved into a self-taught architect, and designer with an intense interest in materials, craftsmanship and simplicity. She had roots and family connections in England and Scotland as well as her Irish birthplace. She is today probably the best known and most admired woman architect of the 20th century, although she was not 'discovered' until the 1970's when exhibitions of her work at the Victoria & Albert Museum, the Museum of Modern Art and at the RIBA Heinz Gallery made her name.

In some ways Eileen Gray does not fit in easily into the history of British architecture. Some would say she does not belong there at all. Born into an Anglo-Irish family living in Ireland, she grew up there and although she studied in London, she soon left for France (in 1908), where she lived and worked as a designer and architect, with a brief interlude in England during World War Two, until her death in 1972 in Paris. However, her career has a particular resonance because of her English and Scottish roots (her mother was a peeress) and
significantly her education as an artist at the Slade School at UCL, and consequently her experience of cultural production in London around 1900. The connections between art, craft and architecture were much discussed in London at this time; for example, the Arts and Crafts Exhibition Society reinforced William Morris's idea of the democracy of the arts with the crafts having full and equal status with painting and architecture in two exhibitions in 1900 and 1904. When Eileen Grey's student perambulations led her to the craft workshops of Soho, there was a very English bridge to help her across the divide between the fine arts and crafts, from painting to lacquerwork, and after 1908 furniture and interior design. By the 1920's, when Eileen Grey was encouraged by J.P.P. Oud and Le Corbusier (amongst others) to take up architecture, it was a natural step which began with her progress from painting to the applied arts. This was a route into architecture for a number of British women but the story of her contact with the De Stijl group, in the person of J.P.P. Oud and how he and Le Corbusier directed her interest to architecture, and to modernism is well-known—and indeed was told through an exhibition at the Heinz Gallery in the early 1970s.

After she moved permanently to Paris in 1908, Eileen Gray developed her interest in lacquerwork and her design skills, creating elegant furniture and interiors for sophisticated Parisians. She spent the First World War in London, but in the 1920s back in Paris, she designed and built houses in the South of France, such as her well-known E.1027 in Roquebrune, which were designed in the best spirit of the Modern Movement, experimental and intelligent— and more characteristic of Gray— user-centred..

**Churches**

The tradition of women as patrons of ecclesiastical buildings goes back to at least the middle ages. In the nineteenth century, the design of churches, their furnishings and decoration were considered appropriate for women, especially if they were built as a memorial to a family member or associated with the professional activities of a male family member. The design of churches reinforced the idea of women's supposedly superior moral and spiritual nature. Like the design of houses, it could be viewed as associated with private unpaid 'ladies' accomplishments' which were comfortably within the domestic sphere.
With professionalisation, churches continued to be a building type which attracted women's design activities. Experimentation with concrete was a pre-war Arts and Crafts adventure, but it became a hallmark of modernism. St. Andrew's Church in Felixstowe was designed in reinforced concrete by Hilda Mason (1880-1955) in collaboration with Raymond Erith.

The Concrete Church, Felixstowe © Reproduced by permission of English Heritage.NMR

The Architectural Review called it: “The only English Church built in concrete--this is, in which concrete is used otherwise than as a cheap substitute for stone”. The construction was concrete frame with steel rods providing the tensile strength and concrete slabs made on the site (cavity brickwork). It was a church which the Architect & Building News, and its architects, believed welded "a logical and straight forward use of material to the strong fifteenth century tradition of East Anglia, such as Dedham, Lavenham, and Blythburgh", although the tower, an important element of the composition was unexecuted. Erith's superb drawing skills were put to good use in producing a set of presentation drawings for parish consumption which made the concrete church look more like a Suffolk parish church than it would ever do again.
Not surprisingly perhaps this unexpected building got a rough ride from the Church Commissioners’ architects, but *Architectural Review* supported St. Andrew’s as a "brave experiment that has the merit of combining structural sincerity with a genuine English feeling."

Hilda Mason anticipated that a connection with the Perrett's concrete Church of Notre Dame, Le Raincy (1922-3) was, and is, inevitable. She feared that this would increase the unpopularity of her own church by association with architecture which was too innovative, foreign and Catholic.

Hilda Mason's other major work was completely modernist, Kings Knoll, 1933, Woodbridge, a house for herself in the International Style.

**Housing**

Both professional women architects and women from outside architecture who had no architectural training campaigned for public housing, homes for the old, homes for single people and accommodation for working women. Women had a crucial role in social architecture and in the formulation of housing policy as architectural writers, researchers, committee members, advisors, organizers, theorists, and housing managers.

The enthusiasm of middle class women for co-operative architecture and living was not shared, however, by working class women, who equated communal facilities with war-time deprivation and the pinched and often unsanitary conditions of communal laundries, as the Women's Housing Sub-Committee of the Ministry of Reconstruction (1917-1920), which introduced women's expertise and service at government policy level, found. Labour, Liberal, and Co-operative women and members of local suffrage societies, professional and other women's organizations represented the views on housing design of ordinary (working class) housewives.

As Mark Swenarton has pointed out, "Although couched in terms of the convenience of the housewife, the Women's Sub-Committee's comments amounted to a demand for a fundamental improvement in housing standards." The Sub-Committee's criticisms also highlighted the fact that the government's plans for post-war, state-supported housing were inadequate and poorly conceived.
Women's caring and nurturing role and their perceived authority in moral and domestic matters gave scope to an interest in social housing and the new building types which came out of World War I. Winifred Ryle, for example, while still an architectural student, wrote in 1918 that women architects wanted to be associated with plans "for social reform and reconstruction after the war" which included not only housing, but crèches, nurseries, and communal kitchens.

Housing for the working classes was a central preoccupation of socially concerned modernists in Britain. At the beginning of the 1930s, the newly formed RIBA Women's Committee sent the architect Joyce Townsend as a delegate to the Women and Housing Conference. The Women's Committee secretary, the feminist, Gertrude Leverkus, gave a paper on Women and Housing at the RIBA; and she was preceded by Elisabeth Denby, who also spoke on housing and was the first women to address the RIBA.

**Elizabeth Denby**

As Sir Reginald Blomfield observed, the equation of architecture with social reform was "a very modernist sentiment". In the 1930s, housing based on social needs and the new modernist architecture was first and perhaps most successfully designed by Maxwell Fry, the architect and Elisabeth Denby, the housing consultant and social reformer. According to Fry, Denby was "the leading spirit in housing" during the 1930's, and. David Medd has called her "England's Jane Jacobs". She applied her many-sided expertise to exhibitions, lectures, films, writings on housing, as well as to actual buildings.

Initially based in the voluntary sector and concerned with housing the poor in West London, as a housing consultant, Denby worked the ground prepared by Victorian philanthropists and reformers, such as Octavia Hill, Susanna Winkwork and Henrietta Barnet, as well as by the women's committees and advisors on house design of the early 20th century. The results of Elisabeth Denby's long experience on the ground in the Kensington House Association and later the Kensington Housing Trust and of her comparative study of recent European schemes were published as *Europe Re-housed* (1938), which is widely regarded as one of the best books ever written about housing and cities. Her concern was
for user-centred design, and she particularly admired Red Vienna, which placed the needs of the buildings' occupants centrally to the design process and to the accommodation provided: She made claims on behalf of working class occupants for beauty, for the importance of the aesthetics of daily life in the built environment - as well as for the provision of sociality, recreation and childcare, which were to be built into schemes.

Denby and Fry's Sassoon House, begun 1933 in Peckham, are "the first modernist workers dwellings in Britain" Here Denby first articulated her vision for social architecture which was also developed in Kensal House, Harrow Road, at Ladbroke Grove, Paddington, opened 1937 - sixty-eight flats in two blocks with a low nursery wing designed by Fry and Denby.

The ideas about housing which Denby promoted and built into Sassoon and Kensal House were the result of her meticulous research into the needs of the buildings' residents in relation to material culture. In addition to the carefully-planned flats, this "urban village", as it was called, contained generous kitchens, a place to store bikes and prams, private gardens and allotments in which to grow flowers and vegetables, a large private balcony for each flat, a meeting place and workrooms, as well as the nursery. However, she did not favour community centres, which she thought had the "flavour of patronage and social service".

Denby also addressed the issue of the furnishing and decoration of social housing. In order for new tenants at Kensal House, and elsewhere, to be able to find well-designed, but affordable furnishings and textiles, she set up House Furnishing Ltd., a distinctive and welcome venture which lasted until 1940. As her designs for an interior exhibited at Britain Can Make It indicated, her understanding of popular taste for decoration took her a long way from the unadorned modernist architecture of the International Style.
Elizabeth Denby's views on housing reform were broad, sensible and extremely well-informed, rejecting both unnecessary demolition of existing housing stock and cottages in the outer suburbs, and after the Second World War, her belief in the vitality of urban living led her to oppose New Towns. However, she advocated mixed housing, high rise, low rise and generous accommodation for amenities in the "urban village" which was much listened to by idealistic young architects.
With Justin Blanco White and Elisabeth Benjamin, Elisabeth Denby was a member of the MARS Group, whose mission statement proclaimed that "structural science and the exact analysis of social needs can supply a sufficient basis for the creation of an architecture of universal applicability”.

Denby was involved with a series of New Homes for Old exhibitions, most notably the New Homes for Old at the Building Trades Exhibition at Olympia which was mounted in conjunction with the MARS Group in 1934, which famously included a scale model of a slum street. At An Exhibition of the elements of modern architecture in 1938, which Denby helped organize with the MARS Group, photographs of Kensal House were displayed with houses by Charlotte and M.J.H. Bunney (Devonshire Hill, London) and by Mary Crowley (at Tewin, Herts.).

Denby was adviser to the Prince of Wales on Housing and, Gillian Darley believes, can therefore be thought to have written "his stirring words on slum conditions" which were delivered at the RIBA Centenary Dinner in 1934. The RIBA gave her an honorary ARIBA. In 1934, Astragal, the diarist in the Architects’ Journal wrote: "In our little world Miss Denby and Miss Ledeboer wield more influence-and get more work done-than any six pompous and prating males".

**Elizabeth Benjamin**

In the inter-war period, the association of women and the home - and women architects and house design - was well-established, but instead of being a consolation prize or backwater for women, in fact, housing became the architectural pre-occupation of the avant-guard and the vehicle of modernism in Britain in the inter-war years. As Jackson has pointed out: "The modern house became the symbol of the new architecture." Women architects were therefore well-placed to speak with authority about the most important aspect of modernism and to create credible and successful designs for modern houses. Elisabeth Benjamin was one of the most outstanding young designers. Dating an interest in architecture to her childhood which featured living in a large number of different houses, she was committed to architecture from the age of eight, although her desire to be an architect was actively discouraged by her school, St.
Paul's. After six months in Paris and a spell at art school she trained at the Architectural Association, and then worked in Lutyen's office for her statutory year, where, as she put it, she "learnt a lot from his unswerving insistence on quality and consistency in design". Her reinforced concrete house in Gerrards Cross (1935-6), with Godfrey Samuel, demonstrates an imaginative use of the modern idiom applied to the private house, the building type which generated the most clients for the modern movement in Britain. Benjamin left the cutting edge of architecture on her marriage in 1936.

Concrete House, Gerrards Cross © Reproduced by permission of English Heritage.NMR

Sadie Speight

In the 1930's, Sadie Speight and her husband, Leslie Martin wrote two important design books, *Everyday Things*, 1931, and *The Flat Book*, 1939. At this time, Martin and Speight were also architectural partners. They designed a fresh, user-friendly expandable nursery in timber unit construction, in Northwich, Cheshire, 1938, and a series of three modern houses in the North of England, which
included [Alistair] Morton House, Brampton, Cumberland, 1938. Morton House combined reinforced concrete and stone detailing and provided accommodation on the ground floor for the children's nursery as well as reception rooms and above Morton's studio as well as bedrooms and a sleeping porch.

The Second World War ended some architectural careers, Norah Aiton's for instance, and changed others, like that of Elisabeth Scott, who went into the public sector. However, in the case of Sadie Speight, her pre-war partner went into public sector architecture, leaving her in private practice, contributing to the Festival of Britain, writing for the *Architectural Review* and designing for both industrial production and commercial interiors.

### Wartime

In the years just before and during the Second World War, designs for nurseries, free holiday camps, and homes for mothers and infants became essential to the war effort. Mary Crowley, Justin Blanco White, and Anne Parker, worked in various combinations with Erno Goldfinger, producing architectural solutions to urgent social problems.

The Expanding Nursery School was devised for flexible, prefabricated unit construction. It was designed on the unit system by Erno Goldfinger with Mary Crowley. The intermediate stage accommodated eighty children formed by two playroom units. But the school could contract (for forty children) or with three units expand to take as many as 120 children, with corresponding coat-room, lavatory and staff units addable. A glass covered verandah was optional. It was a completely prefabricated building with each wall unit made of wooden wall units (6 ft. wide) bolted together, weather-boarded on the outside and fibre-board on the inside.

Goldfinger, Mary Crowley and Justin Blanco White won second prize for a similar flexible scheme of prefabricated accommodation for children (either in peace or war), just before war broke out in 1939.

Goldfinger and Mary Crowley, this time with Anne Parker, designed another scheme for evacuees, a village settlement for mothers and infants under five, planned for about 20 families. The village was organized along communal lines
with a central recreation room/hall, dining room/ canteen, clinic, nursery school and accommodation with mothers and children living in bungalows of varying sizes.

Public Sector: housing and town planning

During World War II, Jessica Albery, like many women architects of her generation moved into the public sector, often combining architecture and town planning. Albery, for example, worked on the town plan for Middlesborough with Max Lock. Although she continued a small private practice in mostly domestic work, she, again like many women of her generation, moved into planning. On return to London she became an assistant regional planning officer to the new Ministry of Town & Country Planning, returning to Regent Street Polytechnic to take the requisite degree in order to be fully qualified. She was also architect-planner at Basildon New Town.

Judith Ledeboer

In the 1930’s with assistance from Elizabeth Denby, Judith Ledeboer and Jocelyn Adburgham co-founded the Housing Centre in London to promote housing based on social needs and progressive architecture. As an architect, town planner and landscape architect, Jocelyn Adburgham developed her career in three aspects of the building industry which attracted women in the inter-war period. She was the first woman member of the Royal Institute of Town Planning (1928), and worked on county and regional planning reports and projects for Kent, Surrey, Berkshire, Oxfordshire and Cambridgeshire, as well as numerous projects for local authorities. She was much admired by her colleagues as a model of the independent professional woman.

Judith Ledeboer trained at the Architectural Association, London (1926-31), and won the Henry Florence Travelling Studentship (1931). A Cambridge graduate, she was inspired by the success of the architect, Elisabeth Scott, and worked as an assistant on Scott’s Shakespeare Memorial Theatre, Stratford-upon-Avon.
Ledeboer practiced architecture from 1934 in partnership with David Booth (1939-41) and 1946-62) and John Pinckheard (1956-70). The firm of Booth, Ledeboer and (later) Pinckheard had offices in London and Oxford, working mainly for clients in the public sector and, after the war, in universities (e.g. Institute of Archaeology and Classical Studies, University of London, 1953-8). Ledeboer’s work was consciously not stylish, but thoughtfully designed, detailed for everyday use and carefully considered in relation to its site and surroundings, which she often landscaped.

Efficient and extremely able, she extended her practice to housing research, exhibition organization and committee work devoted to providing social architecture. Importantly, Ledeboer became one of the most significant voices in post-war housing policy, helping set housing standards which raised the quality of public sector accommodation. At the Ministry of Health (1941-46), she was the first woman employed by the department then responsible for housing. Ledeboer served as Secretary to both the Dudley Committee which produced landmark Design of Dwellings (1944) - Joyce Adburgham was also a member. She sat on the Burt Committee (1942-6), which advised on construction methods - notably prefabrication. Ledeboer was on the RIBA Housing Group, with Jane Drew, Elizabeth Denby and Jessica Albery who wrote the report in 1944, which represented their views about domestic scale and grouping of houses, accommodation for aging people, a liking for terraced houses and flats, but a distrust of very high density flats.

Planning and space standards were set which an eye to post-war building. Ledeboer sat on the influential Parker Morris committee (1961), whose space standards became mandatory in all public sector housing (1967-81).

**Conclusion**

Having considered women’s participation in architecture in the early 20th century in Britain, the question posed by the title, "Golden Age or False Dawn?" can be now answered at least provisionally. From the turn of the century until World War Two, we have seen work which was innovative architecturally and socially, and women architects who by their actions and in their lives redefined professional identity and the boundaries of achievement in architecture. More broadly,
however, their numbers were few, opportunities were limited and their position in the architectural hierarchy was more often than not on the lower rungs of the professional ladder, and hedged in by domestic commitments. However, this was no 'False Dawn': after the Second World War there was no going back, even if in many ways the struggle for equality within architecture had just begun. The first generation had overcome what Gertrude Leverkus had acknowledged was "the greatest drawback…the lack of precedent". After this spirited, talented generation of women architects, it was no longer "an extraordinary thing for a woman to be entrusted with large important work."