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Women in Music Production: A Contextualized History From the 1890s to the 1980s

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INTRODUCTION

This chapter's purpose is to provide a foundational sketch of the historical participation of women within the mainstream of music production from the late nineteenth century to the early 1980s. The context of the survey is Anglo-American, in keeping with the geographical focus of the bulk of the academic literature concerning music production that has accrued to date. My choice of the 1980s as the upper limit of the time frame is intended to suggest that women have by this point become, if not necessarily a normalized presence in the field of record production, then certainly a visible one, and one that is also quantifiable in terms of a body of recorded work that is regarded as significant. Another indicator of their 'arrival' by this time is the increased commentary concerning women within the recording industry that begins to appear from the early 1990s (see, for example, Jepson, 1991; Philips, 1993; Lont, 1995; Bayton, 1998). A key observation that arises from the present survey is that women were involved in music production practice from a much earlier time than has generally been documented. For example, they were active as field recordists in the acoustic era of recording using some of the first sound capture technologies, were working in recording studios as early as the mid-1930s, and were making significant contributions to the evolution of record production aesthetics from the 1950s onwards. In order to usefully contextualize the activities of the women in question I have aimed, where possible, to situate their careers relative to developments in record production practice as they are commonly articulated in the established histories of the field. I have also made an attempt to distill, where relevant, their particular

philosophies of record production and provide some indications of how they were regarded in the critical literature.

A more general aim in undertaking a survey of this nature is to raise awareness of the earlier contributions of women in the field of record production *per se* to address what appears to be a significant gap in historical knowledge. While this is certainly (as far as I am aware) the first academic chapter to attempt a narrative of this scope concerning women's historical presence within the field, it by no means claims to be fully comprehensive within the limited remit of a book section (I again emphasize that the chapter is in the nature of a *sketch*). Rather, it attempts, in the manner of a literature review, to assemble certain facts derived from currently available information in a way that enables connections to be conveniently made, provokes insights, and suggests a basis for future research. In particular my concern has been with foregrounding the creative accomplishments of notable women who have worked in the recording industry, rather than interrogating sociological factors via frameworks deriving from critical theory or gender studies. Having said that, there is no reason why the survey should not usefully inform the perspectives of writers working in these areas in the future.

FEMALE RECORDISTS IN THE EARLY PERIOD OF RECORDING

The idea of 'music production' has evolved considerably since the invention of the first recording devices and has implied a range of practices and processes over the decades. For the purposes of this chapter, music production begins with the appearance of the first sound capture technologies in the 1880s and 1890s, a period commonly referred to as the 'acoustic' era of recording. At this time women played a significant role in exploring the potential of these new technologies through their work as field recordists. Field recording – that is, the practice of using mobile recording equipment (beginning with the phonograph) to capture sound events, musical or otherwise, on location – was essential to the development of the recording industry in the late nineteenth and early twentieth centuries, being by far the most convenient and flexible means of acquiring and amassing a stockpile of recorded material that could be marketed commercially. Field recordists were by turns the first recording engineers, producers, and A&R personnel, and were highly valued for their entrepreneurial outlook and willingness to cast the net widely for material suitable for commercial or documentary use.[1] Also of importance were their interpersonal skills – in an era when recording was still regarded as a novelty, it often took considerable powers of persuasion to encourage musicians to commit their performances to wax. Historical studies of recording typically highlight figures such as Fred Gaisberg and the Sooy brothers (Gelatt, 1977 ; Fischer, 2012 ; Burgess, 2014)

as early pioneers of commercial recording activity with mobile technology. In the area of documentary field recording, however, women appear to have played a more significant role. American ethnomusicologists Alice Cunningham Fletcher (1838–1923) and Frances Densmore (1867–1957), for example, were among the earliest pioneers (in either gender) of documentary field recording in the 1890s, being noted in particular for their recordings of Native American Indian song.[2] Densmore, who for much of her career recorded using a Columbia Graphophone (a rival machine to Edison's original Phonograph), made more than 2,000 cylinder recordings in her lifetime (Hofmann and Densmore, 1968). One of the most important field recordists of the mid-twentieth century was Laura Boulton (1899–1980), active from the 1930s, who spent 35 years of her life traveling the globe recording musicians in places as far afield as Africa, India, Southeast Asia, Japan, and the Arctic. Her 30,000 or so recordings, many of which were issued by RCA-Victor and Folkways Records, today constitute a substantial contribution to the recorded archives of global musical culture.[3] Boulton's autobiography (1969) reveals that, like Gaisberg, she operated both in an A&R-like capacity in her systematic search for recording opportunities and as a producer in her psychological approach to 'coaching' her recording subjects to give their best performances. Andrew Cordier, in his foreword to Boulton's autobiography, commented that

> she had a capacity to develop a quick and easy rapport with her hosts, whoever they might be, and thus elicited from them not only warm cooperation in the rendition and recording of music, but, as well, a flood of folk habits which gives music a meaningful setting.
>
> (1969 : xiii)

Like many other recordists whose careers straddled the early evolution of the recording industry, she also mastered a range of technological media, from Edison wax cylinders [4] to discs to magnetic tape (Hart and Kostyal, 2003). As Boulton stated in her autobiography, "I seem to have lived through the history of recording for I think I have tried every method and material known" (1969: 27). Field recordists such as Boulton, Densmore, and later contemporaries such as Henrietta Yurchenco[5] (1916–2007), illustrate the synthesis of the creative and technical aspects of music production unique to the early period of recording that were later to become separated as the recording industry became increasingly systematized. There is also an interesting parallel here between their activities and the present context of women engaging in autonomous 'self-production' with current forms of mobile recording media (laptops, DAWs etc.), as pointed out by contemporary writers such as Wolfe (2019), which may merit further exploration.

WOMEN AS STUDIO-BASED PRODUCERS AND RECORDISTS: TWO EARLY INSTANCES

Women first begin to become involved in studio-based record production from the 1930s onwards, both in the capacity of producers and engineers. 'Producer' here refers to a role that had by this time crystallized to entail a range of responsibilities, among the more typical of which were decisions concerning who and what was to be recorded (essentially an A&R remit), the organization of recording sessions, and the employment of musical expertise during the recording process to critique standards of performance and interpretation. In some cases producers also contributed ideas on how a recording ought to sound, although the achievement of any particular objectives in this regard usually required collaboration with specialist recording personnel – the engineers (or recordists) – who possessed the relevant technical know-how. The demarcation between these two quite specific territories of music production practice remained pronounced until the 1960s.

The routes by which women entered the field as producers were varied and often the result of quite specific circumstances. For example, Toronto-born Helen Oakley Dance (1913–2001), arguably the first female jazz producer, worked as a journalist for *Down Beat* and as a concert promoter for jazz artists. In 1934 she had moved from Canada to the United States to seek out the live music scene, establishing the Chicago Rhythm Club as a vehicle for promoting public concerts with such luminaries as Benny Goodman, Duke Ellington, and Fletcher Henderson. Her recognized expertise within the field coupled with her immersion in the live scene were instrumental in securing her first recording sessions at the Brunswick label's studios in Chicago, with artists such as Paul Mares and his New Orleans Rhythm Kings (Placksin, 1982). Many of these sessions were funded by the income generated from the concerts Dance promoted. However, her big career break as a record producer came when she moved to New York in 1936 to work in A&R for Irving Mills' short-lived Master and Variety labels. In this role Dance instigated and produced numerous recording collaborations between many different jazz artists of the era. Ward and Huber (2018: 84) state that her remit lay in "assembling experienced, often extremely well established recording artists, supplying them new material and new session-mates to inspire their creativity, and allowing them to record in new combinations that rarely threatened prior contractual obligations".

In regard to the engineering context, it was much more unusual to find women working in technical areas such as sound capture, mixing, or disc cutting during this period, mainly due to the nature of the hierarchical systems that governed employability in studios at this time. This is summarized by Kealy (1979), who uses the expression 'Craft-Union mode' to refer to an ethos of engineering practice that crystallized during the 1940s in which recording was undertaken by

specialists and governed by particular rules and regulations. The Craft-Union context of professional engineering can be seen to have directly informed the career of Mary Shipman Howard,[6] a notable female recordist active from the early 1940s until the early 1950s.[7] Howard was a classically trained musician who from a young age had also been fascinated by electronics and sound: "since I always loved acoustic mechanical things the process of translating a sound wave into an electrical impulse and back into sound I got into recording" (Perlis, 1974: 209). Eager to pursue a career in recording, Howard moved to New York in 1940 and applied for an engineer's position at NBC (National Broadcasting Company) but was barred from accessing such a role on the grounds of her gender. As Howard recalled: "it was unusual for a woman to be a recording engineer, particularly as far as the union was concerned" (Perlis, 1974: 209). Instead, Howard was hired as a secretary, but this was a short-lived role – with the increased need for manpower overseas following the entry of the United States into the war, the union reversed its decision and engaged her as a disc cutter. This enabled Howard to gain valuable studio experience through, for example, the opportunity she had to assist on the groundbreaking series of recordings made by Toscanini with the NBC Symphony Orchestra for RCA Victor (Perlis, 1974).

Howard appears to have become quickly dissatisfied with the employment ethos of NBC, however, and shortly after the war established her own recording studio at 37 E. 49th St., New York. By the end of the 1940s, she had left NBC to make this the main focus of her recording activity. To complement her own disc-cutting skills, she hired sound recordist Don Plunkett (1924–2005), later a founding member of the Audio Engineering Society, as Chief Recording Engineer (Benzuly, 2005).[8] The typical 'Services Offered' by Howard's studio, as listed in *Radio Annual* 1949, were:

> Off -the-air and off -the-line recordings. Commercial records, transcriptions, all studio facilities. Package shows and spots. Tape recording and editing facilities. (Tape To Records – Records To Tape.) Recording all audio ends of TV shows.
>
> (Alicoate, 1949 : 765)

In addition to offering general recording services to the industry, Howard also produced and released records by a small number of popular musicians on her Mary Howard Recordings (MHR) label. These were cut to 78 rpm disc, the dominant format until the early 1950s, and featured the company's distinctive music-themed logo. A flavor of Howard's recording work can be heard on her first commercial release, the Chittison Trio's *Album No. 1*, recorded in 1947, whose six sides capture the vibrancy of the trio performing jazzed-up arrangements of classical pieces. In the same

year, she also recorded the popular African-American singer Ethel Waters (1896–1977), performing standards by Gershwin, Berlin, and others to piano accompaniment.[9] Howard is also notable for the informal recordings she made in 1943 of the composer Charles Ives playing excerpts from his *Concord* Sonata for piano, which have since come to be regarded as an important historical document.[10]

Howard's uniqueness as a female recordist brought her to the attention of *Newsweek* (Anon, 1947) and the trade literature, such as *Audio Record* (1948), which provide a revealing document of her views on the recording profession. In particular, she advocated for the improvement of recording techniques in the USA, and was keen to raise awareness of the importance of the recording engineer to the success of the production process. In a 1948 interview for *Audio Record*, she argued for an holistic approach to production in opposition to the prevailing Craft-Union set-up:

> Unfortunately, the interest and ingenuity of the recordist has often been overlooked. Recording is not a dull craft at all if engaged in all its technical phases. There seems to be a prevalence in large organizations for specialization cutting technicians, studio technicians, maintenance, etc. which often results in poor recording because of lack of interest or information in all phases of the recording operation. If interest and enthusiasm were carried all the way through the recording organization, and management, perhaps time might he found to raise the general recording standards in America.
>
> (*Audio Record*, 1948 : 4)

Howard's work as an independent recordist can be understood in relation to the expansion of the recording industry in the United States during the 1940s and 1950s. As increasingly affordable technology allowed smaller operations to compete with the majors, these decades saw the appearance of many independently run (and often short-lived) labels that enjoyed success at a local level. In New York these included names like Musicraft, Allegro, and the Spanish Music Center (SMC), all of which contributed in their own small way to the heritage of recorded music during this period. In such an environment, entrepreneurial women like Howard were able to sidestep the hierarchical constraints of the large companies such as NBC and pursue their careers with considerable freedom. Another female beneficiary of this climate, who also established an independent recording studio in New York, was Bebe Barron (1925–2008). Barron's introduction to the field was sparked by the acquisition of an early Stancil Hoffmann tape machine in the late 1940s at a time when the technology was still not widely available (Holmes, 2015). Together with

her husband Louis, she established one of the earliest American electronic music studios in Greenwich Village, among whose many pioneering projects were the recording and editing of the material for John Cage's landmark collage based electronic composition, *Williams Mix*, in 1952, and the creation of the entirely electronic music score (the so-called electronic tonalities) for the film *Forbidden Planet* in 1956. The field of electronic music continued to provide opportunities for women to work within studio environments during the 1960s.

HIGH-FIDELITY RECORDING AESTHETICS IN THE 1950S AND THE INNOVATIONS OF WILMA COZART

The emergence of Wilma Cozart (1927–2009) in the late 1950s signals the increasing involvement of women at the cutting edge of commercial record production. Through her collaboration with engineer-husband C. Robert Fine, Cozart made significant and innovative contributions to the development of classical recording aesthetics with Mercury, a small American independent label founded in 1945. Cozart studied music and business at North Texas State University before embarking on a career in orchestral management as a secretary to conductor Antal Dorati (best known for his work with the Minneapolis Symphony). She joined Mercury in 1950 and initially worked in an A&R capacity, augmenting the classical music profile of the label through her brokering of recording deals with unknown or neglected US orchestras of the period, including the Chicago Symphony, Minneapolis Symphony, and Detroit Symphony. By 1956, in recognition of her marketing achievements, Cozart had been made a Vice President of Mercury (unique for a woman at the time), which provided a vehicle for her to expand her remit into the area of record production and participate directly in the recording sessions. From this point she became a key contributor to the evolution of the celebrated Mercury 'Living Presence' classical recording aesthetic,[11] whose principal concern was with fidelity – namely, to duplicate (in recording) and replicate (in cutting the consumed recording) as accurately as possible what was played in the recording session (Ranada, 1991: 96).

Central to the Living Presence sound was the 'minimal' miking technique developed by C. Robert Fine, which involved the careful positioning of a single omnidirectional Telefunken microphone (a Neumann U-47, and later the Schoeps 201M) above the sound source, augmented in the stereo era by two additional microphones on either side. The Cozart-Fine team also placed an emphasis on capturing the interaction of the natural ambience of the room in which the recording was taking place with the sound source in question. Cozart commented that "the room is also very much a part of the performance…We always thought that that was a very, very important part of

the naturalness of sound" (Ranada, 1991: 96). This approach was aligned with a general trend in the 1950s away from recording classical music in the studio, which often produced lifeless and unrepresentative results, towards the use of concert halls and similar venues prized for their acoustic properties (Swedien, 2009; Schmidt-Horning, 2013). To this end the Cozart-Fine team focused on securing acoustically desirable venues around the US and in Europe, including Chicago Hall, Carnegie Hall, Old Orchestra Hall (Detroit), Cass Technical High School Auditorium (Detroit), and Watford Town Hall (in the UK). The overt concern of the Mercury production team with audio quality was also reflected in the presentation of its discs, whose sleeve notes were always partially devoted to explaining in technical terms how each particular recording had been achieved.[12]

In the studio, Cozart was designated an 'Executive Producer', a role which involved coordinating recording sessions, monitoring the progress of takes, and discussing aspects of the recording process with musicians. In addition, she worked closely with C. Robert Fine on matters of microphone placement and participated at the console in the sound mixing process (Gray, 1989a). In an interview in 1991, Cozart recalled her approach to mixing Mercury recordings in the early stereo era, revealing both her appreciation of the technical process and the importance of her musical background to its success:

> We started to record in stereo in 1955 because we knew that was coming. We quickly decided we needed three mikes to get the full sound stage and the spread of the orchestra. All the microphones were omnidirectional. The centre was our monaural mike. When I determine placement I always go to the centre first, because if the centre microphone is in focus and in place you're home free. Then you can add the two sides. Then what you do is 'ghost' the centre back to each side. This is not an engineering task, you have to have a musical person doing this. At the sessions I always monitor all three channels with no mixing. Then in structuring the final result I have to have the score in front of me and put the illusion of the centre back in. Which means that the clarinets have to sit where they sat, that the fl ute be heard where he sat, the bassoon and the percussion and double basses have to be where they were. If you don't get that right the whole thing falls apart.
>
> (March, 1991 : 1485)

Cozart has arguably received the most sustained critical recognition for her achievements over the decades, and as a result has become highly regarded within audio circles. For example, during the heyday of the Mercury label in the 1950s and 1960s, she maintained a consistently high profile in the industry and was frequently mentioned in audiophile literature, particularly the US

publication *High Fidelity*[13] magazine. Then in the 1990s, the project to remaster the entire catalogue of Mercury Living Presence recordings for CD (overseen by Cozart until her death in 2009) led to a revival of interest in the production techniques of the Mercury team.[14] During this period Cozart re-appeared in numerous features and interviews (March, 1991; Ranada, 1991), which served to further solidify her reputation (along with that of C. Robert Fine) as a major innovator in record production.

FEMALE PRODUCERS IN GREAT BRITAIN AFTER 1950

In Great Britain women first began to achieve recognition as record producers in the 1950s, as illustrated by the work of Olive Bromhall (1909– 2002) and Isabella Wallich (1916–2000), both of whom, like Cozart, worked in the field of classical recording. Bromhall was a trained musician, graduating from the Royal Academy of Music as a piano teacher in 1930,[15] and her career in the recording industry began when she joined the staff of the Education Department at EMI in the early 1950s. Established in 1919 in the days of the earlier Gramophone Company, the Education Department was primarily concerned with promoting the gramophone as a pedagogical aid through the development of audio resources designed to support the teaching of musical appreciation (W imbush, 1969). Many of the classical production assignments that Bromhall undertook for the organization over the next few years were historical in nature, as reflected the remit of the Education Department. A major project with which Bromhall was involved in the late 1950s was the *History of Music in Sound* collection, a long-running collaboration between HMV and Oxford University Press. Beginning in 1957 this involved the creation of a series of LPs charting the evolution of music from ancient times to the present, each accompanied by a volume of notated music. Bromhall is identified in the Foreword to the first volume of the series, in which she is thanked for the 'gathering of materials', suggesting that repertoire research was a key part of her production remit (Wellesz, 1957). She subsequently worked on a series of similar historical and education-related productions thereafter, including *Instruments of the Orchestra* (1962), *Music of Shakespeare's Time* (1963), *From Plainsong to Polyphony* (1966), and selections for the five-volume *Treasury of English Church Music* (1966).[16] Among Bromhall's earliest production credits are three recordings of the counter-tenor Alfred Deller performing music of the English Baroque composer Henry Purcell (1659–1695), suggesting this may perhaps have been one of her musical specialisms. These were undertaken at Abbey Road Studios in 1951, and as was typical of the Craft-Union style hierarchy of Abbey Road at this time, Bromhall was assisted on these sessions by various EMI 'house' engineers, including Francis Dillnutt, Robert Beckett, and Harold Davidson.[17]

Isabella Wallich, who can be regarded as Cozart's counterpart in Great Britain, was undoubtedly the most significant British female classical music producer of the mid-twentieth century. Surprisingly, despite a career that lasted into the 1980s, she is hardly mentioned in contemporary accounts of record production history, even where classical recording is concerned,[18] and her detailed autobiographical account published shortly after her death in 2000 (*Recording My Life*) provides the main source for her life's work. Wallich was, like Bromhall, a trained musician, and had a brief career as a professional concert pianist performing recitals and touring during the pre-war years. Significantly she was also a niece of Fred Gaisberg, the aforementioned pioneer record producer who was pivotal in the rise of the Gramophone Company in the early twentieth century. She was therefore immersed from an early age in the recording world and exposed to many influential musicians and industry personalities. Wallich's first encounters with the studio occurred through the opportunities she had to sit in on Gramophone Company recording sessions overseen by Gaisberg in the 1920s. Referring to these sessions, Wallich wrote in her autobiography:

> My greatest joy was to be invited to the studios, when Uncle Fred would allow me into the engineer's room to watch the delicate operation of cutting the grooves into the recording wax…Even at a very young age, I was absolutely fascinated by the process of recording, and was proud to be allowed to attend the sessions.
>
> (Wallich, 2001: 22).

Later she formed an association with Walter Legge, the pre-eminent British classical record producer of the 1940s and 1950s, who had also been a protegé of Gaisberg. Legge was instrumental in progressing Wallich's career in the early 1950s when he appointed her as the manager of his Philharmonia orchestra, leading to a tour of Europe with conductor Herbert Von Karajan. During this period Wallich also received an offer of employment from EMI as a classical producer. She turned this down, however, and in 1954 established her own record label, Delysé, which became the main focus of her record production work. Like Cozart, Wallich took an innovative approach to developing an identity for the Delysé label by focusing on untapped areas of repertoire and unknown artists. In the early period of the label's history, for example, she made Welsh and Irish music the focus of her recording strategy, while in her later classical music endeavors, she undertook a pioneering series of recordings of Gustav Mahler's music at a time when the composer was little known to the general public. Among the musical artists that Wallich was instrumental in bringing to wider public attention through her recordings were the baritone Geraint Evans, the mezzo-soprano Janet Baker, the conductor Wyn Morris, and the classical guitarist John Williams.

While Wallich undoubtedly had a good understanding of the intricacies of the recording process, she was not a recording engineer herself and instead enlisted specialist engineering personnel to work alongside her. By the late 1950s, Wallich had established a fruitful working relationship with Allen E. Stagg, an engineer at British independent recording studio IBC.[19] The choice of Stagg reflected Wallich's concern to work with technical personnel who were not affiliated to any of the major labels, for reasons explained in her autobiography:

> I could have placed the technical side of the operation into the hands of either Decca or EMI, but I decided against this because I wanted to be in complete control and entirely responsible for the atmosphere which I wanted to achieve.
>
> (2001: 146)

Wallich's desire for 'complete control' reflected an awareness of the important role that engineering processes played in defining the sonic character of a recording – by avoiding the established methods of the competing major labels, she would be more likely to produce something unique. As regards the 'atmosphere' she wished to obtain, in an echo of the Cozart-Fine philosophy, Wallich was adamant she did not want 'a studio sound' and instead took pains to locate suitable halls for all of her recordings. For her first released disc (*Welsh Folk Music* , EC 3133), Wallich chose Conway Hall in Red Lion Square, which became a regular venue for Delysé recording sessions thereafter. Her affiliation with Stagg, a purist who was opposed to doctoring classical recordings with EQ or compression, was also key to the shaping of the Delysé aesthetic, [20] and Wallich worked closely with him to set up recording sessions to achieve the sound she was looking for. Wallich's approach to production is well documented in her autobiography, particularly regarding the sessions for two of her most acclaimed Mahler orchestral song recordings, *Des Knaben Wunderhorn* (1966) and *Das Klangende Lied* (1967). Both records were made in Watford Town Hall, a venue still prized for its fine acoustic characteristics, which was purposefully chosen by Wallich for *Das Knaben Wunderhorn* because of the "free, almost out-of-the-door sound that the music required". Wallich recounts her detailed work with Stagg in the control room "to fine-tune the orchestral balance" for this recording, with numerous 'trial takes' to test microphone positioning. This painstaking approach to pre-production ensured that little further editing was necessary after the recording sessions. The recording of *Das Klagende Lied* was a somewhat more complex affair, which involved careful positioning of the singers "so that the listener would be able to imagine the position of the voices in relation to one another and the text" (2001: 200). In addition, there was the problem of positioning of a band in relation to the singers to give the impression that

the sound was emanating from the interior of a castle. Rather than solve this problem through artificial means – for example, by splicing the music in later from a separate recording – Wallich and Stagg took the decision to record the band live with the orchestra, "positioning this group of musicians behind the conductor, as far away as possible within the hall" to achieve a "naturally distant sound". This attention to detail in 'staging' of the recording to enhance the listening experience immediately brings to mind the innovative production strategies of John Culshaw when recording the highly celebrated Wagner Ring Cycle with Georg Solti at Decca during the same period.

Wallich was extremely well regarded in the heyday of her career, and her productions were reviewed frequently in the British trade literature. In a 1972 *Gramophone* retrospective of Wallich's achievements, Roger Wimbush wrote:

> in her work as a producer she has accepted the most daunting challenges and has been responsible for many remarkable recordings. It is not easy to catch the essential frisson of massed Welsh choirs, military bands and children's voices. In the solo field it required the faith born of experience to launch John Williams on record long before the great guitar boom. Her recordings of Mahler have been acclaimed in the face of the fiercest competition in the business, and here her inherited and cultivated flair saw the potential of Wyn Morris, who directed Janet Baker and Geraint Evans for her in songs from *Des Knaben Wunderhorn* and then went on to record *Das Klagende Lied*.
>
> (Wimbush, 1972: 1199)

WOMEN IN MUSIC PRODUCTION IN THE 1960S AND 1970S

The climate of the recording industry as regards its accessibility to women by the late 1960s is summarized, somewhat bleakly, by Lont (1995), who notes that although in this period more women were trying to develop the relevant skills to enter the music business – namely, production, engineering, and management – they remained largely 'unwelcome'. She also asserts that during the 1970s, "major recording companies kept women out of the business end of the industry", with any woman who wanted to work in the "business" "most often placed as a secretary or in publicity" (1995: 326). In reaction to this, some women were prompted to form their own independent collectives, as Lont explains:

> In these early years, a group of women musicians and women engineers unable to get work in the mainstream music industry joined political activists in the lesbian-feminist movement to

> form a "women's music" independent recording industry. The industry included women's music recording labels (Olivia), performers and musicians (Meg Christian, Cris Williamson, and Margie Adam), engineers (Joan Lowe, Leslie Ann Jones), producers (June Millington), album designers (Kate Winter), and photographers (JEB). The albums were distributed via mail order or through women's bookstores to thousands of women who wanted music that realistically portrayed their lives.
>
> (Lont, 1995: 326)

Lont (writing in 1995) suggests that the 'women's music industry' in effect began with these activities in the early 1970s and "continues today as a successful alternative form of music in the United States". There was also another 'fringe' field of studio-based activity in which women were beginning to make headway at this time – electronic music, a technology intensive area of experimentation that was more typically the province of public broadcasting companies, academic institutions, and private inventors. Among the women pursuing careers in this field during the 1960s were Alice Shields, who composed tape music at Columbia-Princeton Electronic Music Center (a University-sponsored hotbed of avant-garde electronic music experimentation), and Delia Derbyshire, who made important contributions to the recorded output of the BBC Radiophonic Workshop (Brend, 2005, 2012).[21] Also at this time composers Linda Fisher, Suzanne Cianni, and Pauline Oliveros were independently evolving innovative and highly personal uses of the newly available Buchla and Moog synthesizers (Trocco and Pinch, 2004). Part of the appeal of electronic music to women, perhaps, was that it afforded the individualistic pursuit of creative goals through experimentation with technology whose potential was not yet fully codified in practice. To put it another way (alluding to the appeal of 'self-production' discussed by Wolfe), rules delineating technological specialism had not become entrenched in the way they had in the commercial recording industry, meaning likely fewer constraints on creativity.

While there is much truth in Lont's observations regarding the outlook for women wishing to enter the mainstream recording industry during this period, it is nonetheless the case that a small number were successful in pursuing careers within this environment from the 1960s onwards. These women joined the industry at a time when the division between specialist handlers of recording technology (engineers) and those who directed them in its creative use (producers) was still very much in place. This meant that women generally tended to enter the business from the traditional A&R producer perspective, rather than as engineers. However, it was also during this period that the boundaries between the technical and the creative aspects of production were being gradually eroded, particularly in the field of popular music. On the one hand, recording artists were now

becoming interested in participating in the production process (see Kealy, 1979), while on the other hand, producers desired to expand beyond their traditional A&R remit to become more involved in areas usually reserved for the technician. This blurring of boundaries can be seen to have informed the work of women working in both popular and classical recording production.

I n the popular music sphere, the 1960s saw the emergence of Helen Keane (1924–1996), an important jazz record producer, and Ethel Gabriel (b. 1921), who produced a wide range of popular and easy listening music for RCA. According with Lont's account of the employment situation for women in this field, Keane's first job in the music industry was as a secretary for MCA in the 1940s. However, the organization possessed enough hierarchical flexibility to permit her to work her way up to the position of 'female talent agent', in which capacity she was responsible for a number of major signings, including Andy Williams and Harry Belafonte. After undertaking a similar role with CBS Television acquiring talent for the Ed Sullivan and Gary Moore shows, she left to set up her own management agency, and from around 1962 began a long-term association with jazz pianist Bill Evans (Pettinger, 1998). From 1966 Keane was both manager and full-time producer of Evans's work, taking both an A&R approach in her persuading him to expand the scope of his recording projects beyond what was typical for jazz artists at the time (Schroeder, 2013), and in becoming increasingly more involved in the recording and production process itself. Such was Keane's technical knowledge of the recording process that Nat Hentoff, who observed her working with pianist Joanne Brackeen, remarked that she "possessed the audio engineering skills to take over the control room" (Placksin, 1982: 275). In an interview (Dahl, 1984: 247), Keane has qualified this, acknowledging the demarcation between herself and the engineer in the studio and recognizing the relationship as essentially collaborative in that the engineer is directed by the producer towards achieving the sound she is after, but " *his* ears are going to be working if yours get tired". Among the most valuable accounts of Keane's career as a manager-producer for Bill Evans are Pettinger (1998) and Shadwick (2002), while interviews in Dahl (1984) and Gourse (1996) are more revealing as regards her production philosophy. On the role of the producer-manager synthesis, for example, Keane has remarked that:

> The ideal way to function as a manager is to be the producer. They are two separate functions, but the manager really knows more about the artist than anyone else – his or her creativity, life, habits, how disciplined or undisciplined they are when they work, what music they like best, how they choose their material, how they like to record. Therefore the manager can obviously be the best producer.
>
> (Dahl, 1984: 247)

Ethel Gabriel enjoyed a 43-year career as a producer for RCA Victor, leaving a substantial legacy of recordings, and serving as an inspiration for women to succeed in an environment that was often hostile to their presence. The practical difficulties surrounding Gabriel's career, who, in her capacity as A&R producer, "invaded one of the most hallowed male areas of the music business" are discussed in revealing detail in Lucy O'Brien's book *She Bop II* (2002). Gabriel joined RCA in 1940 as an A&R manager and record inspector working at the label's plant in Camden, New Jersey, and in an echo of Bromhall's career path, was later transferred to New York to work in the educational record department. Her move into production occurred in 1955 when she was entrusted by RCA's then president, Mannie Sacks, with producing Mexican bandleader Perez Prado's US hit 'Cherry Pink and Apple Blossom White' (Mayfield, 2001). On the strength of this success, she went on to produce recordings for key artists of the era such as Chet Atkins, Cleo Laine, Perry Como, and Roger Whittaker. One of Gabriel's most notable RCA projects was the 'Living' series of easy listening albums, released on RCA's economy label Camden, during the 1960s (Lanza, 1994 ; Aldinolfi and Pinkus, 2008). These were pioneering productions in the Muzak idiom, designed, in Gabriel's words, "for a person who loves music, but at the very moment you get too classy with them, it's over their head" (Lanza, 1994: 90). Her approach on the *Living Strings* albums (which won her a Grammy in 1968) was essentially to adopt pop production approaches to the processing of the classical string orchestra sound, through the use of echo. Gabriel commented that:

> Echo was important back then. Before we got the German echo chambers in the early 'sixties, we found that the best echo was through the men's room on RCA's studios on 24th Street. When Toscanini recorded at places like Manhattan Center, they would channel his music through it and pipe the sound into the studio.
>
> (Lanza, 1994: 90)

As regards the specifics of Gabriel's approach as a record producer, while interviews and features have offered some sense of her detailed and perfectionist attitude towards the recording process (see, for example, M cDowell, 1983) , in comparison to what we know of Cozart and Wallich, this has unfortunately received only sporadic attention.

Women also continued to make a significant impact in the field of classical music during this period, as exemplified by the important triumvirate of producers that emerged in the early 1970s: Patti Laursen (1927–2013), Joanna Nickrenz (1936–2002), and Eleanor Sniderman (b. 1920). Laursen, who played a key role in developing the classical music profile of Angel Records (the classical division of Capitol Records), began her career in classical record retail, before being

employed as a distributor for the Vox classical series. She also spent a period working as a station librarian and programmer for KFAC-AM, a major classical music broadcaster based in Los Angeles. These early experiences were pivotal in building the extensive knowledge of the classical repertoire that formed the bedrock of her later production expertise. In 1963 she joined Capitol Records, working with the Angel label as an assistant to producer Robert E. Myers, and within only four years had risen to become a producer herself (Dexter, 1974). As a producer Laursen worked with many iconic classical artists, including Christopher Parkening, Leonard Pennario, Itzhak Perlman, Angel Romero, and Yehudi Menuhin, helping them to establish identities that would enable them to succeed in the classical music marketplace. For example, she assisted guitarist Christopher Parkening (with whom she worked on many recordings) in developing a distinctive profile at a time when the marketplace for classical guitar music had reached a saturation point. In his autobiography (2006), Parkening states that Laursen's knowledge of classical music made her an excellent adviser on the repertoire choice for his albums, encouraging him to move away from well established potpourri programs to musical projects of a more conceptual nature. Laursen received two Grammy nominations for her work with Parkening – specifically for *Parkening and the Guitar* (in 1977) and a later album *Pleasures of their Company* (1986).

Joanna Nickrenz was a classical pianist by training who had distinguished herself as a recording artist in the late 1960s.[22] She entered the world of record production when she was hired by engineer Marc Aubort to work for Elite Recordings, a small freelance recording outfit best known for its work for the Vox and Nonesuch labels.[23] This launched a long and fruitful career in classical recording, which brought her widespread recognition and many awards. She received her first Grammy ('Best Engineered Classical Recording') in 1974 for her work with Aubort on the album *Percussion Music* with the New Jersey Percussion Ensemble (Nonesuch, H71291). Eleanor Sniderman (née Koldofsky) was a key figure in the establishment of the classical recording scene in Canada. She began her career at Boot in the early 1970s, a label associated with country music, which was then branching out to explore the marketplace for Canadian classical music. Her first production (for the Boot Master Concert Series) was the debut album of the classical guitarist Liona Boyd, which was recorded at the iconic Manta Sound Studios in Toronto, a venue in which Sniderman undertook much of her production work during her career (Boyd, 1998). In 1975 she left Boot to establish Canada's first classical label, Aquitaine (inspired by her idol, twelfth-century queen Eleanor of Aquitaine), and proceeded to build a roster of Canadian classical artists, including Gisela Depkat, Arthur Ozolins, Victor Schultz, and Alan Woodrow.

Like Cozart and Wallich before them, all three women involved themselves to varying degrees in the recording process, often being initiated into this area via close collaboration with male engineering colleagues. Laursen, for example, formed a long-term relationship with Robert Norberg until she retired from Capitol in the late 1980s, which influenced her particular 'purist' classical recording aesthetic of "keep it simple. No plethora of microphones spread all over the place; no multitrack gimmicks" (Smith, 1991). Laursen's musical background also informed her detail-oriented approach to recording: as Smith, who observed Laursen undertaking a recording session for Harmonia Mundi, commented, she "followed every note of the score. No intonation slip escaped her notice; no weak attack or blurred passage got past her" (Smith, 1991). Laursen's career also encapsulated the introduction of digital recording in the late 1970s, a development which she embraced wholeheartedly (Terry, 1979). Nickrenz became closely involved with the intricacies of studio practice early in her career when engineer Marc Aubort undertook to train her in recording techniques. This enabled her to successfully straddle the line between a more conventional musically focused producer role and that of the studio technician (Fremer, 2010). In particular, Nickrenz was highly skilled in the area of editing – that is, the splicing and cutting together of multiple takes of performances – a process requiring acute aural awareness and considerable precision. Remarking on her editing ability, William Bolcom, a pianist who worked with Nickrenz on a number of recordings for Nonesuch, described her as an "absolute whiz . . . probably the best in the business" (Harvith and Harvith, 1987 : 306). Nickrenz's consummate skill as an editor was a reflection of her general view that recordings stood as a permanent record of an artist's capabilities and therefore ought to be as technically perfect as possible. Joan Morris summed up Nickrenz's production philosophy in the following terms:

> They really go for technical perfection. "Well," Jo says, "you know you're going to be listening to this for the next seventy-five years. If that note's a little sharp and you don't bother about it – 'Oh, I'm too tired to do it' – that's going to bother you for seventy-five years. You might as well, if you can, have it as perfect as possible".
>
> (Harvith and Harvith, 1987: 296)

While such a detail-oriented approach to the construction of recordings can be seen (relative to the era) as a more progressive recording philosophy, at least where classical music was concerned, in other respects the Nickrenz-Aubort team erred on the side of tradition in their audiophile recording aesthetics. For example, the Nonesuch team took a similar approach to Mercury in their

insistence upon minimal miking and the use of concert halls and churches with high-quality acoustics to make their recordings (Horowitz, 1973; Fremer, 2010).

In contrast, Sniderman took a more progressive attitude towards recording classical music, preferring the studio environment to location recording and willing to use the technological resources of the studio (such as artificial reverberation and tape splicing) to shape her productions. Her most significant (and controversial) recording, which was also a benchmark in large-scale classical music production for the era, was the 14-LP set of Beethoven's complete piano sonatas, recorded (between 1975 and 1977) by the Vienna-born Canadian pianist Anton Kuerti (b. 1938). For the recording, Sniderman close-miked the piano,

> in an acoustically dead studio just large enough to contain Kuerti and his piano. The dry sound was passed through an echo chamber on its way to the tape, then fed back to Kuerti through the headphones as he played.
>
> (Hathaway, 1977: 253)

This unusual approach, which had more in common with popular music recording aesthetics, was seized upon by some critics as a travesty. For example, reviewing the discs in 1977, Thomas Hathaway claimed that the dead studio environment robbed the instrument of the acoustic resources necessary to accurately portray its colors, while the effects distorted the balance of frequencies and made the instrument sound too close. He also argued that the set-up influenced Kuerti's performance style in a negative manner, producing dynamic emphases where they were not necessary. This was a minority perspective, however and elsewhere Sniderman's innovative production approach was held in high esteem by the audiophile recording community, as evidenced by a cable she received from the preeminent European classical recording label of the era, Deutsche Grammophon, congratulating her on her achievement (Dzeguze, 1979). Sniderman also received a Juno Award for the Kuerti recordings in 1978.

DISCUSSION: HISTORICAL FACT AND CONTEMPORARY OPINION

My aim in the preceding commentary has been to foreground the careers of some of the most widely accomplished, but largely undocumented, female record producers of the last century, with a view to providing a foundational narrative for contextualizing the writing on the subject that has emerged since the 1990s. In one sense, this is intended to serve the general purpose of augmenting the existing accounts of women's presence within the narrative of music production history. For example, the information in this chapter might usefully complement Barbara Jepson's 1991 article

on the situation of women in the classical recording industry, bridging the careers of Cozart, Laursen, and Nickrenz (who are also acknowledged by Jepson) with their younger contemporaries, such as Judith Sherman, Elizabeth Ostrow, and Elaine Martone. Or it may function to expand on the tidbits of information concerning the earlier history of record production, as exemplified by Susan Schmidt-Horning's pioneering 2013 history *Chasing Sound*, which, within its own remit, can only give brief attention to Mary Howard's activities in the 1940s or the achievements of Wilma Cozart in the 1950s.

It may also reveal the shortcomings of the extant historical accounts of music production, which in general have not taken the broad approach to the field necessary to capture the presence of its female participants. Part of the problem relates to the fact that much of the writing on the subject, whether couched in historical or theoretical terms, has tended to delimit the field to the territory of popular music, which itself is defined narrowly in reference to a mostly male canon of iconic producers. Hence, as will have been observed in the cases of those women working in specialist or fringe areas such as jazz and easy listening – namely Helen Oakley Dance, Helen Keane, and Ethel Gabriel – it has been necessary to consult a range of disparate sources in order to piece together the circumstances of their careers. Classical recording has also been largely excluded from the music production studies literature, with the exception of historical accounts such as Gelatt (1977) or Day (2000)[24] and autobiographical commentaries such as Gaisberg (1942), Culshaw (1982), and Schwarzkopf (1982). In general, there has been little systematic documentation of the work of classical producers per se, which may reflect the common assumption that in classical recording the producer role, by contrast to the 'producer-as-creative-agent' perspective that is widely recognized in popular music (see Moorefield, 2005), is not usually elevated above the artist and the musical interpretation.

The survey has also drawn attention to particular themes that might be profitably explored in further research. In particular, as this chapter has shown, a number of the women discussed – Olive Bromhall, Isabella Wallich, Wilma Cozart, Eleanor Sniderman, Joanna Nickrenz, and Patti Laursen – all worked as producers in the field of classical music. This has been an area of record production in which women have clearly been able to flourish and make important contributions, but this fact that has so far received little acknowledgement. As Patti Laursen noted, in her response to Chuck Philips' 1993 article highlighting the ongoing problem of the accessibility of the record business to women:

> In Chuck Philips' excellent article on the growing number of women in executive positions in the recording industry ("You've Still Got a Long Way to Go, Baby," April 18), and thank

> goodness for that, he did not mention, nor perhaps know, that the leader in this area has been the classical recording industry. . . . Perhaps our abilities and professional dedication helped top label executives understand that women have made, and are making, a significant contribution. The recording industry will be the richer for it.
>
> (1993: 83)

The reasons for the apparent success of female record producers in the classical field clearly merit further exploration, and there are certainly indications in the earlier literature as to the directions this potentially might take. Comments made by certain interviewees in Jepson (1991), for example, suggest that classical recording environments may have generally been more hospitable to female producers. Judith Sherman, while acknowledging that the industry is competence-oriented, states that: "The only time I feel a rub is when I go into a pop studio – in the pop world, women are a commodity" (1991: 345), while Alison Ames comments that "We're better off in the classical side than rock and roll" (1991: 344). These are qualified statements, in that Jepson's article acknowledges that the industry ethos at the time of writing was generally challenging for women. However, it indicates that there are potential differences in studio culture based upon genre that obviously should not be ignored when considering these issues.

On a related point, it is also hoped that the foregoing survey might usefully inform the reading of gender studies accounts (usually focusing on popular music) that have tended to problematize male-gendered studio culture (see, for example, Bayton, 1998; Leonard, 2007). The culmination of this critique in the recent writing of Wolfe (2012, 2019) is to advocate a re-location from such culture into situations of individualized 'self-production' in order "to disrupt the gendering that, historically, has taken place within the field" (2019: 24). What the historical record demonstrates, however, is that women have been able to function successfully within the traditional studio context, many of them working in productive collaborative relationships with their (usually) male engineering colleagues, whose expertise they harnessed in the service of their production visions. Furthermore, the various women discussed in this chapter have not indicated (at least as far as what they have put on record about their careers is concerned) that they were intimidated by the technological context within which they were working. Rather, like their male counterparts, they were stimulated by it and made a success of their careers by using the available technological resources as a vehicle for achieving their creative production goals. Certainly no one would deny that circumstances of their music production activities were to varying degrees conditioned by the gender-based distribution of studio roles that obtained during the era in which they were working, and it would be naive to suggest that entrenched values concerning gender did not in particular

cases throw up significant obstacles to career progress (as directly experienced by Mary Howard with the NBC union example). At the same time, however, an over-reliance on reductionist hegemonical interpretations of gendered power to evaluate the nature and scope of their contributions may obscure the importance of their very considerable achievements. As the successes of these women clearly illustrate, the recording industry cannot have been an entirely unassailable male fortress.

To summarize, women were active in the recording industry in a range of capacities as early as the 1890s, and this was by no means a peripheral or tentative development: the women in question were highly successful and influential in the field. In several of the cases discussed, they contributed significantly to the evolution of recording practice with their ideas on production and their willingness to innovate with emerging technologies for recording. Given the current high-pitched rhetoric that continues to problematize the recording industry's attitude towards women, one could be forgiven for assuming that the pioneering work to establish women within the field was just now beginning. As this survey has demonstrated, however, this is far from the case, and it is hoped that the preceding attempt to re-write the aforementioned women into the received history of record production will provide a useful basis for future research.

NOTES

1. See Western (2018) for an insightful essay on the ways in which field recording can be regarded as a unique area of early music production practice.
2. Fletcher was assisted in her recording projects by Francis La Flesche (1857–1932), a notable professional Native American ethnomusicologist.
3. Major collections of Boulton's recordings are housed at Columbia and Harvard Universities.
4. The use of wax cylinders remained popular with field recordists working in the 1930s due to the portability of the recording equipment. In her autobiography (1969: 17), Boulton wrote: "To have preserved anything at all with that early equipment was something of a miracle".
5. Henrietta Yurchenco pioneered field recording in Mexico in the 1940s. Originally trained as a pianist, Yurchenco had begun her career as a broadcaster on New York radio station WNYC, where she had gained a reputation for 'weird' programming, in reference to her playlists of American folk and world music. In 1941 she left this position to take up residence in Mexico with her husband Basil Yurchenco, and over the next few years toured that country and Guatemala for recording opportunities with local tribes (Hart and Kostyal, 2003; Yurchenco, 2003).

6. Later sources refer to Howard by her married name, Pickhardt.
7. See Sutton (2018) for a succinct summary of Howard's career.
8. See Schmidt-Horning (1999) for a fascinating interview in which Plunkett discusses his time working with Howard.
9. The Chittison and Waters recordings can currently be heard in remastered versions on *The Chronological Classics: Herman Chittison 1945–1950* (Classics 1334) and *The Chronological Classics: Ethel Waters 1946–1947* (Classics 1249).
10. They were commercially released in the *100th Anniversary* box set of Ives' works in 1974 (Columbia Masterworks M4 32504).
11. This expression came from a New York critic's comment on the first released Mercury LP that experiencing the recording was like being "in the living presence of the orchestra".
12. See, for example, the sleeve notes for two of the label's most innovative recordings, the Tchaikovsky *1812 Overture* (1959) and *The Civil War, Its Music and Its Sounds* (1958).
13. See, for example, a lengthy *High Fidelity* article by Shirley Fleming (1961) documenting Mercury's stereo re-recording of the *Civil War* album.
14. The most recent remastered box set compilation, *Mercury Living Presence: The Collector's Edition 3*, was issued by Decca in 2015.
15. Confirmed by a brief mention in the *Musical Times* dated June 1, 1930.
16. Little has been written about Bromhall from a critical perspective, but it has been possible to discern the circumstances of her career from liner notes, occasional references to her activities in periodicals, and informal discussions with EMI archival personnel. In particular I am grateful to Lester Smith, Ken Townsend, Tony Locantro, and Malcolm Walker for the assistance they provided in enabling me to confi rm certain facts concerning Bromhall's work at EMI.
17. The recordings are 'Retired from after any mortal's sight'; 'Thus to a ripe consenting maid' and 'Hark, how all things'. They were re-issued on The HMV Treasury series in 1982 as HLM 7234.
18. She is noticeably absent, for example, from Timothy Day's *A Century of Recorded Music*, other than a brief citation in reference to Fred Gaisberg.
19. Stagg became General Manager of Abbey Road Studios in 1967. For further discussion of IBC and Stagg's activities, see Massey (2015). See also Wimbush (1967) and Vinyl House UK (2016).
20. Stagg's particular attitude toward classical recording is outlined in his technical notes reproduced on the sleeve of the Mahler *Des Knaben Wunderhorn* LP, which state that "no

artificial echo, equalisation or screens were used at any time, the aim being to record as natural a sound as possible".

21. Established in 1958 at Maida Vale, West London. The composer Daphne Oram (1925–2003) was a co-founder of this organization.
22. Nickrenz specialized in performing contemporary music. See, for example, her 1968 recording with the Claremont Quartet of works by Schoenberg, Webern, and Stravinsky (Noneusch H71186).
23. Nonesuch was also notable for its female director, Teresa Sterne, who was instrumental in transforming the label from a small European outlet to a leading exponent of progressive music.
24. Day mentions Isabella Wallich briefly, but this is only in reference to her uncle Fred Gaisberg.

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