The Female Voice in American Musical Theatre (1940-1955):
Mary Martin and the Development of Integrated Vocal Style.

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of

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DECLARATION

I, Katrina Margaret Hunt, hereby declare that, except where otherwise acknowledged in the customary manner, and to the best of my knowledge and belief, this work is my own, and has not been submitted for a higher degree at any other university or institution.

[Signature]

Katrina Margaret Hunt
ACKNOWLEDGEMENTS

This has been a very long project and many people have been part of it. Impossible as it is to acknowledge everyone who has made it possible for its successful completion, I would like to try.

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DEDICATION

To all the ladies of Broadway who have given so many people so much pleasure.
This study examines the changing manner of female vocalisation in the American Musical (1940-1955) through the development of the integrated singing techniques of Mary Martin, an icon of American Musical Theatre. It suggests that the vocal style that she exemplified changed from a variety of idiosyncratic vocal styles linked to particular role-types to a more flexible, integrated style better able to adapt to a range of roles required by the rapidly changing demands of the entertainment industry. Martin is situated within the historical trajectory of cultural and technological change, and the isolation of moments along that trajectory brings into focus her centrality within those changes and the intentionality of the development of her vocal style.

Three central genres of early twentieth century musical theatre (operetta, the musical play and the revue) are considered, along with the female performers and vocal styles that underpinned those genres. They are situated in an historical context of rapidly developing recording technology and the expanding communications industry. The intrinsic characteristics of three dominant voice types are analysed through the lens of three significant performers active between the First and Second World Wars: Edith Day, Helen Morgan and Ethel Merman. The inability of these performers to acquiesce to the changing demands of the entertainment industry during the third and fourth decades of the twentieth century are identified.

Three quantifiable measures of the voice - tessitura, vibrato and spectral analysis - are used to isolate Martin’s classical, legitimate and belt phonations, and to illustrate the emergence of her distinctive croon style through her early recordings on stage, screen and the recording studio. A period of intense vocal development is revealed in Martin’s little known radio performances on the NBC network in 1942. This was a time in which she began to consolidate different vocal techniques into a single vocal style, and to show her to manipulate the perception of public, personal and private distance through vocal timbre.

An examination of Martin’s stage success in One Touch of Venus reveals both her integration of vocal techniques in the characterization of a single role, and the transferal of her techniques of intimate audience interaction to the live stage. Also shown is the establishment of Martin as a role model in the eyes of the media and the general public. The penultimate chapter of this dissertation portrays a performer unafraid of breaking
new ground, as Martin changes her stage persona in a national tour of the Merman vehicle *Annie Get Your Gun*, and subsequently takes her place in musical theatre history as Nellie Forbush in the Pulitzer Prize winning *South Pacific*.

The study concludes with an examination of Martin’s television performances in the first half of the 1950s, in which she displays all facets of her vocal technique and range. The immense popularity of Martin’s variety performances with Ethel Merman and Noel Coward, and her enduring broadcasts of *Peter Pan*, without doubt made Martin a leading role model for emerging vocalists.
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INTRODUCTION

Over the past century, the female musical theatre voice has moved from highly individual performers specialising in one style of vocal performance to vocal generalists, each of whom sounds similar with no specialisation at all. During the first half of the twentieth century, the women of Broadway used their voices, skills and personalities to fulfil the ideal of the theatrical "super performer" for musical theatre audiences.

Mary Martin (1913-1990) was one of these women. I had never heard of her until I began research for this project. For me, Maria in The Sound of Music was a somewhat saccharine Julie Andrews; South Pacific’s Nellie Forbush was a very strangely lit Mitzi Gaynor; and Peter Pan was a cartoon character. Yet, Martin’s name kept reappearing. A chance acquisition of the original cast recording of The Sound of Music introduced me to a performer of unanticipated versatility, emotional intensity and vocal depth. Continuing investigation revealed a woman whose face was not beautiful enough for Hollywood and whose voice was not powerful enough for operetta. Here was a performer whose search for the magic ingredient that would make her a star enabled her to create a stage persona that was at once brassy and gentle, romantic and tough, coltish and womanly, sexless and sensual, innocent and knowing. Mary Martin was equipped with a unique voice for every aspect of her persona.

This study examines the development of Mary Martin’s vocal style as an exemplification of the changing manner of female vocalisation in the American Musical. I demonstrate how this type of singing changed from a variety of idiosyncratic styles linked to particular role-types, to a more flexible, integrated approach adaptable to the range of roles required by a rapidly evolving entertainment industry. Using tessitura, vibrato and spectral analysis as quantifiable measures of the voice, this thesis explains how performers could encapsulate the vocal qualities of the female artists of American Musical Theatre’s “golden age.” It will also provide valuable insights into the use of the voice for musical theatre performers, musical directors and musical theatre aficionados.

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1 Full biographical information can be found in Chapter Three.
2 Certain words have specific meanings throughout this study and appear in the glossary of terms. Where this is the case, the word is italicized.
A disparate array of source material provides the foundation for this study. To ensure maximum clarity, sources have been referenced in a hierarchical fashion, with all referencing based on the Chicago Manual of Style 16th Edition. In accordance, periodicals including magazines, newspapers and supplements are not included in the reference list. Magazines (as defined in 14.172) and newspapers are referenced in footnotes (15.47), as are special newspaper supplements, magazines and similar sources (14.209). A discography of all sound recordings (including radio performances and films) is also provided. Grouped by artist and listing all original recordings in date order, the discography also details re-issued recordings referenced within the thesis. Within the context of this study, specific meanings have been assigned to a number of commonly used words. These words appear in italics, with the relevant definitions provided in the Glossary of Terms at page 278. Appendix C (p 386) contains nomenclature used throughout this study for the discussion and/or representation of pitch.

The Rationale and Boundaries of the Study

Over 400 operettas, revues and musical comedies opened on Broadway between 1920 and 1929. The revue and the operetta were both at the height of their popularity, and musical plays were slowly shedding their extraneous comedians, clowns and novelty acts. By the end of the 1920s, the musical play, or book musical, was overtaking both operetta and the revue in popularity. By the late 1930s, operetta was relegated to the classical genres, and had all but vanished as a musical comedy form. The revue continued to lose popularity until the early 1950s, when the advent of television broadcasting facilitated its revival.

In 1943, Richard Rodgers and Oscar Hammerstein II presented the ground-breaking musical Oklahoma! to the American public, and began what has become known as the “golden age of American musical theatre”, a period considered to have ended in the mid-1960s with Fiddler on the Roof (Swain 2002, 8; Grant 2004, 5; Suskin 2009, 7; Gennaro 2011, 45). This general assumption has remained relatively constant throughout the last thirty years across educational and publication settings, (Naden 2011, 4) but there is fluidity as to the parameters of the “golden age” period. For

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3 It is impossible to say exactly how many shows opened in this period. These figures are derived from Green 1971, Salem 1991 and Jones 2003.

4 Contextual discussion regarding classification of iconic musical comedies such as Show Boat and Oklahoma! as operetta is outside the scope of this study.
example, Bordman considers the “golden age” of musical theatre to have occurred from 1924 to 1937, prior to musical theatre becoming what he termed a “conscious art form” (Bordman 2001). In contrast, Noonan refers to the “classical musicals” of Rodgers and Hammerstein, beginning with Oklahoma! (1943) and finishing with The Sound of Music (1959) (Noonan 2006, 48), and nominates the “golden age” as encompassing those works leading up to (and including) Cabaret in 1966 (162, 167).

Whatever parameters are applied to define the “golden age of American musical theatre”, the period from 1920 to 1959 was dominated by successful, long running shows, many of which remain in the repertoire: Show Boat, Sally, Rose-Marie, Wildflower, and The Desert Song (1920s) Of Thee I Sing, Anything Goes, DuBarry was a Lady, The Cat and the Fiddle and Babes in Arms (1930s); Oklahoma!, South Pacific, Annie Get Your Gun, Kiss Me Kate, and One Touch of Venus (1940s); My Fair Lady, The Sound of Music, The King and I, Guys and Dolls and Gypsy (1950s).

These were created by a combination of writers and composers whose names remain synonymous with American musical theatre and Broadway: Col Porter, George and Ira Gershwin, Richard Rodgers, Jerome Kern, Kurt Weill, Oscar Hammerstein II, Lorenz Hart, Frank Loesser, and Jules Styne. They guided the development of the book musical into a form which remains the touchstone “against which book musicals are measured” (Wolf 2011, 10). The history of the musical is entwined with these writers, all of whom began their careers writing songs to be interpolated into musicals to show off a star’s voice.

Between 1920 and 1959, Edith Day, Helen Morgan, Ethel Merman and Mary Martin appeared in many of the longest running shows on Broadway and London’s West End. In the 1920s, the torch singer Helen Morgan starred in Show Boat and the lyric soprano and ingénue Edith Day appeared in five popular operettas in New York and London. In the 1930s, Ethel Merman’s “stentorian belt” was introduced to Broadway, opening the door for composers such as Porter and Berlin. The 1940s was Mary Martin’s decade—a period when the integrated musical really became prominent in the theatres and found its place in the hearts of audiences. Martin starred in three of the fourteen longest running shows in that decade, all three of which are found in the top forty works.
It is no accident that Martin’s performance life falls neatly within the American theatre’s “golden age”, and it is virtually impossible to separate her from it. Her formative years were spent listening to music and singers of Bordman’s “golden age”; and she was an integral part of Noonan’s classical period and a Grande Dame thereafter. Hand in hand with some of the greatest composers and directors in American musical theatre, it was Martin’s talent, energy and voice that made characters such as Nelly Forbush and Maria von Trapp part of the cultural landscape. Martin was performing constantly throughout this period and her output is too large to be encompassed within the boundaries of this study. Resultantly, the focus of the dissertation concludes with Martin’s establishment as a popular television performer in the mid-1950s—the height of her career. The development of the musical from the beginning of the “golden age” demanded a performer capable of taking on any role and singing in any style. This study posits Mary Martin as the first and leading example of that new kind of performer.

The Female Voice in American Musical theatre Today

Vocal demands on female musical theatre performers in the twenty-first century are greater than ever before. Since the advent of widespread amplification reduced the need for singers to concentrate on their audibility, composers have combined a wide range of already demanding vocal styles within their works. Performers are asked to sing virtually any type of music, utilising diverse timbres and a range of tonal qualities (LoVetri in Melton 2007, 39-40). Now reliant on the support of amplification, singers are no longer considered “either/or; [they are] all-inclusive. All boys are bari-tenors; all girls are sopranos who belt” (Saunders-Barton in Melton 2007, 58). Vocal flexibility is of utmost importance; women in musical theatre need to “produce a variety of tone qualities and sing in a variety of vocal modes to reflect and express the lyrics, the character, [and] the emotions of the piece” (Boardman 1992, 11).

Since the success of Hair in the late 1960s and the subsequent rise of the rock musical, vocal elements of popular genres such as jazz, rock and roll, blues and even country and western music have increasingly become part of performance in musical theatre. The widespread popularity of television shows based on the American Idol template has

5 Lute Song, Annie Get Your Gun (Martin toured the US in the show) and South Pacific. Martin also turned down starring roles in Oklahoma! and Kiss Me Kate.
subsequently added another level of complexity. In this context, singers come to believe the only way to present a song is by standing still, closing their eyes, filling every space in the melody with melismata and singing “just off the voice” (Moore 2007, 85).

All of these different vocal styles are derived from the separate voice types that developed in the early twentieth century alongside American musical theatre. This study identifies three female vocal styles in American musical theatre prior to the end of the First World War: the classical voice in comic operetta; the conversational lyric soprano in the musical play; and the penetrating belt of the revue. The development of these vocal styles continued into the 1920s and entrenched the stereotyping of women’s performance roles within American musical theatre until their reunification in the emerging vocal style of Mary Martin.

The Change in Female Vocal Styles in American Musical Theatre

Female musical theatre vocal styles embarked on a developmental journey during the twentieth century, and by its second decade, three essential female character types had emerged—the soubrette or heroine, the comedienne or clown, and the experienced or tragic woman.6 Each of these characters evinced a specific vocal style: the soubrette sang in an operettic or legitimate voice, the comedienne in a belt or coon shout voice, and the experienced woman performed in a manner similar to the torch singer.

For the purposes of research, the selection of a single performer to reflect each of these vocal styles was problematic, given the vast number of performers on Broadway at the time. Within the context of this thesis, selected performers had to meet several criteria and their popularity had to be demonstrable through contemporary accounts of the period. The chosen women were grouped into the three basic vocal and character types and one performer was selected to represent each vocal style. This task necessitated the careful assessment of the popularity of the performers at the time; the number and popularity of the shows in which the women appeared, and the radio, news broadcasts and contemporary reports in newspapers and magazines were quantified.7

The centrality of the voice in this study meant that it was important to access the

6 See Goldstein 1989 and Noonan 2006 p 53-56 for further discussion of these groupings.
7 This was simply approached by ascertaining the length of the show’s initial run.
preserved “sound of the performer”, and the existence and availability of original recordings was therefore an important factor in the choice of subjects. At the beginning of the 1920s, the recording industry was in its infancy and the now familiar cast recordings did not appear until the 1940s. Consequently, some iconic performers including Marilyn Miller could not be included in this study. Others, such as Edith Day—while not necessarily the originator of their most successful roles—made the first recordings of music from those shows. After the resolution of these issues, the women selected for inclusion in this study were Edith Day representing the soubrette/operettic voice, Ethel Merman as the comedienne/belt voice and Helen Morgan embodying the experienced woman/torchsinger.

Recording and Broadcast Technology in the Twentieth Century

Recording and broadcast technology developed swiftly in the first half of the twentieth century. Beginning with the rapid adoption of sound recording late in the nineteenth century, a dynamic recording industry revolutionised the dissemination of both popular and classical music throughout the West, furthered by the introduction of radio in the 1920s. Both the radio and the gramophone were rapidly incorporated into the sitting rooms of a large cross-section of the general population, thus bringing the concert hall and the theatre to a broader audience and redefining the reception and production of the female voice in the popular sphere of theatre performance. The marrying of sound to the moving picture in the 1930s created yet another environment for female vocal development, and the introduction of television in the middle of the century brought all forms of popular entertainment to a home audience across the world. Through such media, Mary Martin was able to bring all aspects of these forms into living rooms in the guise of a friendly neighbour.

Mary Martin

A multifaceted, compelling and versatile performer, Mary Martin thoroughly integrated the major vocal styles of early twentieth-century Broadway—her “place in the history of American musical theatre is singular” (Davis 2008, xi). Realised and supported by lifelong vocal training, her flexibility of performance style and resilience as a live performer was extraordinary, given the peak of Martin’s career came at a time before amplification was in general use in theatres. Her fearlessness and utter belief that anything was possible combined with her warm, dynamic personality, and allowed her
to achieve feats of physical and vocal stamina still unrivalled by any performer on the musical stage. It is difficult to overstate the significance of Mary Martin’s contribution to the development of female vocal style on Broadway, and her central presence as an integral part of musical theatre throughout Broadway’s “golden age” is undeniable. While Mary Martin stubbornly resisted categorisation and did not fit into the *soubrette*, *comedienne*, or experienced woman groupings, she extended each and fitted into them all. Martin was able to move effortlessly between different vocal and character styles, and transitioned seamlessly between stage, screen, record and radio.

Martin was central to the establishment of musical theatre as an American institution. She celebrated fifty years in theatre sitting on a piano in front of the President of the United States, dressed in a fur-coat and very little else. The cameras recording the event captured her impish naivety, seemingly unchanged after five decades. But what they could not show were the transformations that both she, and the world in which she had blossomed, had gone through across half a century. From the unamplified theatres of New York, through emerging and developing recording, radio and television technologies, Mary Martin brought the voice of Broadway to the nation and the world. This dissertation will examine the way in which Mary Martin’s vocal development epitomised the successful transition to, and accommodation of, technological progress during the first half of the twentieth century and the new demands these advancements made upon American musical theatre.

**Literature Review**

Musical theatre and the female voice have been under scrutiny by historians, musicologists, social scientists, and music pedagogues for many years. Each of these schools of inquiry has maintained a division of methodologies which is now being broken down with the advent of unprecedented and widespread access to information technology. Three methods of inquiry inform the structure and methodology employed in this study: the traditional musicological approach grounded in the history, culture and music of the first half of the twentieth century, utilising descriptions of the voice, the performers and the music itself and its performance; the pedagogical approach, focusing on the mechanism and production of the particular vocal styles; the vocal science approach, which uses complex, and often invasive, laboratory based methodologies to

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8 Such as performing the eternal boy in *Peter Pan* by day, and the motherly Maria in *The Sound of Music* by night.
precisely measure the physiological and acoustic properties of the voice.

Each of these approaches contributes an essential element to the story of the voice; however this study, like musical theatre itself, takes a little from each in order to create a new, more accessible, approach to the study of the voice.

*The multi-sensory/visual presentation of music performance*

**Music Performance**

Until recently, the most common way of experiencing music was through both sound and vision, but following the advent of radio and recording this was no longer the case (Davidson 1993, Thompson et al. 2005, Broughton and Stevens 2009). In reality, there was only a very brief period in the early twentieth century when the performance of both western classical and popular music was predominantly received aurally—a short window between the gramophone record and radio, film and television. Yet the physical act of performing music remained virtually ignored by musicologists until the last decade of the twentieth century, when Christopher Small announced that “[m]usic is not a thing at all but an activity, something that people do” (Small 1998, 2). Until that time, the study of musical performance, like the study of voice, developed from two separate approaches. That is, an empirical approach in the United Kingdom (the result of the coming together of cognitive psychologists and music researchers) and a score-based approach developed by North American theorists, which resulted in a one-way flow of information from theorist to performer (Cook 2012, paragraphs 1-2).

Small challenged the idea of music as a one way process, including the suggestion that no performance can be better than the work that is being performed, or the notion that each musical work is autonomous, existing without reference to any particular set of religious, political or social beliefs. Most importantly, he challenged the belief that performance plays no part in the creative process and the assumption that it is a medium through which the isolated, self-contained work has to pass in order to reach its goal (Small 1998, 5-7). At the same time Nicholas Cook set out to extend the boundaries of music theory to encompass words, moving images and bodily gestures through the analysis of musical multimedia, “a field which crosses effortlessly from the ‘high’ arts

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9 Even performance studies, emerging as it did from a “synthesis of theatre studies with aspects of anthropology, sociology, and oral interpretation,” exhibits an absence of music-based performance genres (Auslander 2004a, 1).
to the popular one, and back again” (Cook 1998, vii).

Cook accused theorists analysing music performance of being too ready to “abandon the attempt to understand what performers do,” alleging they are too authoritarian in insisting that the performance of music must grow from the analysis of the work (Cook 1999, 241). Jose Bowen echoed Cook in his declaration that musicology was score bound and “many theorists (and musicologists) want to tell performers what they should do” (Bowen 1996, 23-4), insisting that performance practice had been treated as a separate study to performance itself (Bowen 1999, 430). He called for the study of music “as and in performance,” offering in his own work a common ground “where analysis, cultural studies, hermeneutics, and performance practice meet” (Bowen 1999, 451).

Cook continued to focus on the essential idea that the very act of performance creates meaning, that it is the performers “who are primarily responsible for the generation of meaning, who act...as the motor that powers musical culture.” He insisted that meaning in musical performance could be interpreted through a marriage of quantitative (scientific) and qualitative (humanities) investigation (Cook 2008, 1-2, 2012, paragraph 12). In 2014, Cook proclaimed the study of music as performance as a nexus of cross-disciplinary work (Cook 2014b, 333). However, in the very same publication Jane Davidson, herself a heavy weight in the music performance field, complained the focus of the empirical study of musical performance still remains focused on a very narrow selection of nineteenth-century western classical music.

**Performativity: the future in musical performance research?**

Margaret Kartomi’s work on performativity signals a holistic approach to musical performance is not only possible, but already here (Kartomi 2014). Emerging from literary and linguistic studies, the concept of performativity has become increasingly wide-ranging through its adoption by a growing number of disciplines, including anthropology and performance studies (Davidson 2014a, 179). On a very basic level, Kartomi’s performativity refers to all the descriptive and analytical aspects of a performer's competence or accomplishments while performing, including the sounds, movements and gestures the artist produces (Kartomi 2014, 190).

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10 Kartomi refers here to Becker and Becker’s definition of a competent musician as a performer who has mastered a culture's generative musical grammar and can therefore create music that is comprehensible to all who have mastered the rules of style (Kartomi 2014, 191).
Beginning with the general assumption that performance research must be conducted within its socio-cultural and historical environment, Kartomi traces the genealogy of performativity through music psychologist Carl Seashore, linguists Noam Chomsky and Alton Becker, and the ethnomusicologist Judith Becker, highlighting the genesis of the term from language philosopher J. L. Austin’s work on speech act theory. Austin proposed a three-level performative methodology for language, which distinguishes between the actual words spoken, what the speaker is attempting to do with those words, and the effect the speaker has on the listener (Kartomi 2014, 191). Kartomi then rounds out her approach by including a periperformative level that includes the contributions of all stakeholders to the success of a performative event.

Kartomi’s performativity offers a four-level methodological model for music performance: the actual music performed; the execution of the music and factors that affect it; performance style, performer’s persona, competence, and attitudes to tempo, tone colour, intonation, improvisatory practises, entrainment and reception; the effects of the performers on the audience and vice versa; and the contributions of all stakeholders to the success of the event (192). Kartomi highlights types of explorative questions using this performativity model, such as why do some performances hold more ‘magic’ than others? Why do performers and audiences find repertoire combinations more appealing than others? How does a performer succeed in moving an audience? How does audience reception influence a performer’s creativity? These questions are also an important part of the present research, and Kartomi’s model of performativity provides an overarching methodology informing the structure of this thesis.

The multisensory and visual approach to musical performance

The perception of everyday events involves the integration of information through multiple senses—hearing, sight, touch, taste and smell, all combining into one experience (Schutz and Lipscomb 2007, 888). Scientists have long been concerned with investigating a hierarchy or priority among the senses, while the interaction between auditory and visual information is known to influence cognitive and emotional

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11 A sound or gesture in one cultural context may mean something completely different in another.
12 Periperformative level refers to those things that surround a performance, but not the performance itself. In the present research for instance, the periperformative considerations related to Martin’s television appearances would include audience reception of television in general, all the stakeholders responsible for creating the performative event (producers, directors, writers, stage hands, cameramen), as well as the camera and the set.
judgments (Vines et al. 2006, 81). The experience of a musical performance may change depending on the senses governing the experience at the time—the sensual overload of a rock concert might be remembered for the light displays, while the sounds of a symphony orchestra might be forever recalled by the smell of a perfume, or the ballet by the dancers, and the choral concert by the touch of your partner’s hand.

Until Jane Davidson published her seminal study on the visual perception of performance, perceptual studies of musical performance looked primarily at individual expression, examining variations in the pitches, dynamics, timing and timbral indications of the composition being performed (Davidson 1993, 103)—an approach that remains central to the study of recordings. Davidson’s was the first study to question the domination of the aural component in the study of music performance; she found that visual reception was more important than aural perception in understanding a performer’s expressive intentions (Davidson 1993, 112)—a position confirmed by numerous studies over the next two decades (Thompson et al. 2005, Vines et al. 2006, Schutz 2008, Broughton and Stevens 2009, Vines et al. 2011, Platz & Kopiez 2012). Visually transmitted movement information has been shown to alter the usually stable perception of single tone duration when the production movement is changed (Schutz and Lipsomb 2007) to achieve musical goals that are in fact acoustically impossible (Schutz 2008). Even in the absence of sound, listeners have the capacity to identify basic emotions and levels of expressiveness from movements only (Dahl and Friberg 2007).

Facial expression and other bodily movements have been found to affect the experience of music at a perceptual and emotion level. Different facial expressions have been shown to cause the same musical events to sound more or less dissonant, the same melodic interval to sound larger or smaller, and the same music to sound more or less joyful (Thompson et al. 2005). A performer is able to use gestures as a mechanism to shape the musical experience of their audience. Thus, musical communication relies on the correlation “not between performer intent and acoustic result, but between performer intent and audience perception” (Schutz and Lipscomb 2007, 896). An audience

13 Although it is important to note Auslander’s contention that “[d]espite the physical absence of the performer at the time of listening, listeners do not perceive recorded music as disembodied...its phenomenological status for listeners is that of a performance unfolding at the time and in the place of listening” (Auslander 2004b, 5).
integrates the visual with the aural aspects of a performance to form an integrated, audio-visual, mental representation of music, and this representation is not entirely predictable from the aural input alone (Thompson et al. 2005, 220).

**Movement and communication**

Human movement is an important non-verbal communication and enables observers to extract information about the course of an action or the intentions of an individual or group. Motion patterns can indicate a person’s sex, the weight of a box, or a variety of emotions such as joy, sorrow, anger or fear (Dahl and Friberg 2007). Studies have shown that physical gestures are critical in the presentation and perception of music (Davidson 2001, Davidson and Correia 2002, Kurosawa and Davidson 2005) and that body movements employed by singers and instrumentalists add a dimension to the performance which allows for different levels of interpretation (Davidson 2001, Dahl & Friberg 2007, Broughton and Stevens 2009).

Gestures underscore the role of social interaction in the construction of a performance (Davidson 2001, 250). Some movements illustrate the narrative content of the song, while others have more to do with the focus of the individual performer and how they engage with audiences and co-performers (Davidson 2001, Davidson & Correia 2002, Dahl & Friberg 2007). It has also been suggested that a relationship between the size of the gesture and the intensity of the musical sound expression exists. That is, the more exaggerated the expressive intention of the music, the larger the movement (Davidson and Correia 2002, MacRitchie et al. 2013). Analysing body movement in performance can reveal how identities are maintained and communicated through performance, how body movement contributes to the entertainment value of performance and how performers manage the distance between themselves and the audience (Dibben 2009, 332).

**The analysis of body movement in musical performance**

There is still no agreed framework for the analysis of body movement in musical performance, and researchers have found it necessary to adopt different models of non-verbal communication, or to model their own (Davidson 1993, Dibben 2009, Zbikowski 2013). However, a recent study presents a quantitative analytical model of musical expression examining body motion, musical sound, and listeners’ continuous response to musical sound (Goebl et al. 2014). It offers a variety of ways to capture movement in
performance, including video-based approaches, three-dimensional motion capture systems and sensor-based approaches. In the present research only video-based processes are feasible.

Jane Davidson’s comprehensive research, (Davidson 2000, 2001, 2005, 2007, 2009, Davidson and Correia 2002, Kurosawa and Davidson 2005) makes extensive reference to the classifications of body movement that have communication functions defined by Ekman and Friesen (1969). That is, emblems—a symbolic body movement that correlates with a direct verbal translation, and meaning shared by all members of a group, class or culture; illustrators—movements that demonstrate the spoken message’s content, inflection, loudness, or rhythmic accent; regulators—movements that maintain and regulate the flow and content of interactions mostly among co-performers; adaptors—personal behaviours like habits acquired at earlier stages of life to satisfy self needs or to control emotions, for example wrapping the arms around the body as a self-protective gesture and affective displays such as facial and body expressions which reveal emotional states.

In addition to these codes, Davidson and Kurosawa included reference to Michael Argyle’s categories: facial expressions—which offer information regarding personal characteristics and other feedback; gaze—which is important in establishing interpersonal relationships; posture—which can convey information including interpersonal attitudes (liking/disliking, dominant/submissive, tense/relaxed) and emotional states; and touch—which can communicate interpersonal attitudes and emotional states as well as increasing emotional arousal (Kurosawa and Davidson 2005). Davidson has shown that there is a repertoire of expressive gesture used for the generation of expressive ideas that are available to the observers of music performance. The depth of her work has established a solid basis upon which to examine the role of movement in Mary Martin’s development of a performance persona.

*Musicology and the emergence of a research focus on American musical theatre.*

Over the last thirty years, the position of American musical theatre as a subject for academic research has improved immensely. Until a special musical theatre edition of the *Journal of Popular Culture* in 1978, which explored American musical theatre as social comment, little notice had been taken of Broadway as a serious topic for research.
Indeed, the *modus operandi* of musical theatre writers, whether approaching musical theatre generally (Engel 1967, Green 1971, Mordden 1976, 1983, 1997, 1998, 1999, 2005), or through the lives and works of Broadway composers (Ewen 1968a, 1972, Green 1974, Nolan 1978) was set by Cecil Smith in his book *Musical Comedy in America* (Smith 1950, i). This was one of the first books to tell the history of the musical stage on Broadway and was the progenitor of the myriad books written on musical theatre the second half of the 20th century. Smith states his purpose and methods quite clearly ensuring there is no mistaking his book for a scholarly work.

The purpose of this book is to tell what the various entertainments were like, how they looked and sounded, who was in them and why they made people laugh or cry…If the descriptions and assessments of the pieces and people it deals with are offhand rather than scholastic, or opinionated rather than measured and impersonal, this is because the medium itself does not suggest Wissenschaft and the devices of the doctor's dissertation. I have sought to treat the works on their own level and in their own terms, which are ordinarily very friendly and gay…I have endeavoured to show the position of individual works and of the categories to which they belong within the historical continuity that led to musical comedy as we know it today. (Smith 1950, vii)

In making what amounts to an apology for daring to write a whole book on such an inconsequential topic, Smith began a litany of apology by authors of literature on this subject. It would be almost forty years before musical theatre would be recognised as a field for serious research.

The establishment of a new journal *American Music* in 1983 gave impetus to the burgeoning research area, and critical histories of the development of musical theatre began to appear (Borroff 1984, Green 1984, Lamb 1986, Williams 1986). In 1988, Tommy Krasker and Robert Kimball published the *Catalog of the American Musical*, the first phase of a national effort to locate and rescue original performance materials. The catalogue surveys seventy five (75) book musicals of Berlin; the Gershwin brothers; Porter; and Rodgers and Hart; and documents the location and completeness of original piano-vocal scores, lyrics, libretti and orchestral scores and parts as well as composer’s manuscripts. While not exhaustive, this catalogue provided an invaluable resource to this researcher.
The rise in academic interest in popular music during the nineties progressed naturally to include musical theatre. Musical theatre researchers began to draw on critical theory from various disciplines aside from history, including cultural theory (Grant 2004, Jones 2003, Knapp 2005 and 2006, Replogle 2009) gender studies (Goldstein, 1989, Mendenhall 1990, Lewis 2005, Feder-Kane 1999, McCracken 2000, Noonan 2006) as well as queer theory (Wolf 2002 and 2011). The general surveys of the past evolved into critical surveys of the canon (Swain 1989, Everett and Laird 2002) as well as individual shows (mcclung 2007) and, as musicologists entered the fray alongside their theatre history colleagues, musical analysis began to be included (Block 1997, Wood 2000, Lovensheimer 2003, Noonan 2006, Suskin 2009).

In recent years, critical biographies have also explored the development of musical theatre through the individuals creating the form itself (Hirsch 2003, Greenspan 2010, Banfield 2006). However, these have reflected the general view that musical theatre is a genre mediated through writers, composers, choreographers and directors; the role of the performer (male or female) in the development of musical theatre has mostly been ignored.

**The female voice in American musical theatre**

Few works focusing on the female voice have been published outside the scientific and pedagogic literature\(^{14}\), although several doctoral dissertations have taken the female voice on Broadway as their central theme. These have, by the necessity of her centrality to the history of musical theatre, included Mary Martin. Marilyn MacKay’s 1983 doctoral dissertation describes the emergence of the “American Eve” in American musical theatre. Apparently unable to choose between Martin and Merman, MacKay uses both women to represent the voice of her “American Eve”, although at no point does she actually discuss the voices of either woman, or the characters they played. After forty pages of discussion, McKay summarizes Merman’s contribution saying:

> She introduced a certain character type, which became a standard feature of the American Eve, by expanding the self-reliant, American, humorous leading lady who has the positive outlook of the wisecracking dame with the marshmallow heart (84).

\(^{14}\) The main exception being the work of Stacy Wolf whose fascinating explorations of gender and sexuality in the American musical, including Mary Martin, touches only briefly on the voice itself.
Martin on the other hand played a far more complex role in the development of McKay’s American Eve. Not only did she develop the “joyful, bright, innocent, tomboy type” (108), Martin also contributed to the “American Heroine”, as exemplified in her interpretations of Annie Oakley and Nellie Forbush. McKay noted that so dominant was Martin’s American heroine when she played in Peter Pan, she “was able to change the nationality of the play itself, from British fantasy to the American tall tale” (109). McKay suggests that The Sound of Music “provided Martin with the musical means of illustrating the development of the heroine character from youth to maturity” (109). While recognizing Martin’s multifarious contributions to her prototype and baldly stating that Merman’s only contribution was as “the wisecracking dame” (110), McKay was still unwilling to separate the two performers and their contributions to the American Eve. McKay’s work does however give a clear indication of the value of Martin in the development of American musical theatre.

Suzanne Ramczyk, in her analysis of the performance demands of key female roles in the genre, discussed Martin in the role of Nellie Forbush in South Pacific (Ramczk 1986). She acknowledges Martin’s credentials as a multi-faceted performer and that, by virtue of performing the role of Nellie Forbush, she “must be accomplished in all three areas of performance—acting, singing, and dancing” (170). Ramczyk contributes the narrow range and simplicity of melodic structure and rhythm in South Pacific, at least partially, to her assumption that Martin was not an “operatically-trained singer” (183).

It is obvious that Martin does not sing in an operatic or classical style. Further, her voice possesses only limited vibrato and can more appropriately be defined as straightforward and vibrant. She does not sing in a belt style but seems to have (or have had) a very frontally-focused voice which is well projected. Her voice, according to this album and the range and tessitura of the score, can be classified as a lower soprano, possibly a low lyric soprano. In spite of the range in which Nellie sings, Martin’s voice cannot be classified as a mezzo-soprano (187).

Ramczyk fails to differentiate between the role of Nellie and the performer Mary Martin; or to take into consideration Martin’s background prior to South Pacific, or her influence on the work itself.

Julie Noonan presents a much clearer analysis of Martin’s vocal abilities and acknowledges Martin’s considerable input in the development of both the roles of
Nellie in *South Pacific* and Maria in *The Sound of Music* (Noonan 2006). However, in failing to note any significance in the considerable differences between the vocal styles and requirements of the two roles, though written by the same composers for the same performer, Noonan falls prey to the twenty-first century assumption that a musical theatre performer should naturally be able to perform in any vocal style. This is an assumption that is not sustainable in the context of the mostly unamplified world of mid-twentieth century musical theatre. Once again, the scholar’s narrow focus misses an important aspect of Mary Martin’s place in the development of a female vocal style.

**Mary Martin**

Only three biographies of Mary Martin have been published to date. The first, by historian Shirley Newman and intended for an adolescent audience, was written while Martin was still active on television and the stage (Newman 1969). Newman describes Martin’s stage career simply and accessibly, beginning with her first visit to Fanchon and Marco in 1933 and ending with her tour of Vietnam in *Hello Dolly*. It focuses on Mary Martin’s stage career and does not mention her television, radio or film appearances. The author assumes that her readers are familiar with Martin’s stage work, so does not supply any details of the productions or their plots. Newman has researched her topic well and quotes have been extracted from a wide range of available texts, including magazine articles and several monographs (commendable given the small number of texts that had hitherto been published on musical theatre). The illustrations show Martin in each of her stage roles, and are interspersed with carefully selected photographs of Martin with her family.

Through the text and illustrations, the reader may perceive they are being taken into Martin’s private life; discovering not just her successes as a stage star, but also becoming privy to her self-doubts and perceived failures. Martin is presented to the adolescent reader as talented, hardworking, loving, kind-hearted and fallible, a role model with whom they could comfortably chat. The biography captures the essence of the public attitude towards Martin, emphasising her appeal as the girl next-door and American everywoman, and reinforcing her position as an American icon.

The second biography, written by Barry Rivadue and one of a series of bio-bibliographies, was published in 1991, the year of Martin's death. It provides extensive information, including annotated lists of stage performances, recordings, broadcast and film appearances, and a bibliography of 314 reviews, articles, and books on Martin’s
life and work. The opening biographical sketch is a clinical outline of her life and work, peppered with selections from letters in Martin’s private collection and from conversations between Rivadue and those who knew Mary Martin. The quotations included in the text give the impression of a personal relationship with Martin, though this scenario is neither claimed nor denied. Rivadue declares his sources in the preface of the book, but does not distinguish the exact source of his quotations. Although laying the groundwork for further research, it actually reveals little about Martin herself.

The third, and only comprehensive biography of Martin, was written by Ronald L. Davis, Professor Emeritus at Southern Methodist University in Dallas, Texas. Davis is an historian specialising in American culture, with a particular interest in the stage and screen, and has authored seven biographies of noted film and stage stars, in addition to volumes on music and opera in American life. In this volume, he brings together his love of musical theatre, his friendship with Martin and his considerable experience and expertise as an historian to tell the story of Martin’s life and work. Drawing on the massive aural history collection of Southern Methodist University, which he instigated and to a large degree collected, Davis creates a meticulous picture of key periods of Martin’s life, her career and those with whom she worked.

None of these biographies make more than a passing reference to the development of Martin’s voice. Neither does Martin’s autobiography My Heart Belongs, which, although undoubtedly not an unbiased view of Martin’s life, was still a valuable resource for this study.

_Analysing the Voice_

_Vocal science and pedagogy_

For well over a century there have been two distinct approaches to the study of the female classical and non-classical singing voice. On the one hand a scientific approach focussing on the intrinsic, physical mechanics and acoustics of the voice, mostly undertaken in carefully controlled laboratory conditions. On the other, is the traditional pedagogic approach, which focuses on extrinsic vocal practices, vocal health and versatility in an increasingly competitive world; usually within the confines of the voice studio. As the pedagogical world draws more heavily on the work of the vocal sciences, and vocalists become drawn to the technicalities of voice production, the line between the two is, to some extent, becoming blurred.

Investigations into the production and registration of vocal styles used in musical theatre, have included those with a single subject able to move between styles (Sundburg et al. 1993, Estill 1988, Thalén and Sundberg 2001, Stone Jr et al. 2003, Popeil and Henrich 2004, Echternach et al. 2014) and those with multiple subjects who specialise in just one style (Björkner et al. 2006, Le Borgne 2010). These investigations have led to a greater understanding of the chest and head registers, and the vocal mechanisms involved in moving between the two, which is essential in the musical theatre performer (Sonninen et al. 1999, Miller et al. 2002, Björkner et al. 2006, Svec et al. 2008). 

Schutte and Miller argued for the recognition of a middle register between the chest and head registers (1993), and a concurrent study suggested that there was a middle voice\textsuperscript{16} that showed features of both the operatic (head) and belt (chest) styles — the moderate jaw opening of the operatic and the high larynx of the belt (Sundburg et al. 1993, 309). Since that time Miller and Schutte have concluded that the successful bridging, or mixing, of the chest and middle registers of the female singing voice may be the consequence of the “skilful use of resonance [rather] than …muscular adjustments to the glottal voice source” (2005, 291). In 2010, Kochis-Jennings further refined mixed register to include a chestmix, with perceptual and acoustic characteristics more similar to chest than head register, and a headmix, which was more similar to head register.

\textsuperscript{15} Discussed later in this chapter. 
\textsuperscript{16} Also known as the mixed voice.
than chest (Kochis-Jennings et al. 2010, 183). She noted that these appear to be dependent on vocal training. Classically trained singers tended to produce head and headmix registers and commercially trained\textsuperscript{17} singers chest, chestmix and head registers, but not headmix.

There is also a large body of literature discussing the production of the belt voice in terms of its impact on the vocal health of the singer, and the need for the classical singing teacher to include belt techniques as part of their studio teaching. The works of Susan Boardman, Robert Edwin, Jo Estill, Donald G. Miller, Conrad Osborne and Lisa Popeil have, in particular, informed my research. However, as the focus of this dissertation is the development of early belting style, these issues will not be directly addressed in this study.


Possibly the most representative of the performer/pedagogue/researchers is seen in the decade of articles by Robert Edwin and published regularly in the Journal of Voice. In these articles Edwin adopts an almost fatherly tone as he discusses a variety of issues facing performers and pedagogues while drawing on his own experience as a performer, a teacher who keeps well abreast of the pertinent developments in vocal science.

**Analysis of the recorded voice**

Although Carl and Harold Seashore’s pioneering voice research in the 1930s (Seashore C, 1931, 1936 and 1938) made extensive use of commercial recordings, the quantitative examination of the voice was restricted to the laboratory for fifty years. However, by

\textsuperscript{17} The singers were trained in contemporary commercial music genres, but not in classical techniques. This has only become possible within the last forty years.
the 1990s commercial recordings were again being used by the vocal science community as samples for spectrographic analysis. Donald Miller has been one of the main proponents of the suitability of commercial recordings for vocal analysis (Miller 2002, 9). A later study, with Schutte and Duinstee, was specifically designed to draw information of practical use from historic recordings (Schutte et al. 2005, 306). The authors noted that the effects of formant tuning by tenors in all pitches above the passaggio could be found in commercial recordings as well as being demonstrated by accomplished singers (304). They concluded that commercial recordings were a “source of a reasonable facsimile of the balances of the spectral components of sung sound” (306).

While this debate continued, the use of recordings as source material was also being brought to the attention of historical musicologists. Robert Philip, in his seminal work on changing tastes in instrumental music (1992), spot lit the central role that recordings could play in the examination of the evolution of performance practices throughout the twentieth century. He focussed his discussion on three aspects of early twentieth-century performance practice; rhythm—including flexibility of tempo, tempo rubato and dotted rhythms, vibrato and portamento (2). These are aspects that have remained central to the discussion of performance practice since that time (Lott 2006, Katz 2006, and Timmers 2007), although researchers have expanded the discussion to include phrase arching (Cook 2009), timbre (Leech-Wilkinson 2010), unnotated arpeggiation and the dislocation of melody from the accompaniment (Da Costa 2012).

Timothy Day (2000) provided astute guidance for future work by the inclusion of an in depth examination of the history of recording and the recorded repertoire. He also called attention to the role of listening in music analysis. This discussion was taken up by Cook, who works from the premise that musicology is grounded in listening, and suggests that recordings can provide a window to performance and “be understood as the traces of performance events…and…prompts to performative acts” (Cook 2009, 242) (2009). Da Costa postulates that recordings provide “direct evidence of features of individual musicians’ performance styles that would otherwise would have been irretrievably lost” (2012, xxviii). Indeed, the growing body of research investigating early twentieth century recordings has revealed an almost improvisatory nature to the performances by individual instrumentalists and vocalists (Da Costa 2012, xxix). Especially in the extensive use of rubato and portamento, and the more ornamental use

Additionally, Leech-Wilkinson’s in depth exploration of Elena Gerhardt’s recordings of Schubert Lieder between 1911 and 1939 supports the notion that the examination of contemporary recordings can reveal developments in vocal styles within the repertoire of a single vocal artist (Leech-Wilkinson 2010). His discussion of expressive vocal gestures focuses does not immediately open with the more readily measurable elements, such as *vibrato* (64), scoops or swoops (67), *portamento* (69), tuning (70) and *rubato* (72). Instead he begins with a discussion of how Gerhardt worked with “those aspects of [her voice] that may have seemed less than perfect but that could not be trained or practised away” (60). In particular, he considers her manipulation of the harmonics of each note to minimise sudden timbral changes at the boundaries of her chest and head registers.

Two special issues of *Musicae Scientiae* devoted to the work of the AHRC Research Centre for the History and Analysis of Recorded Music (CHARM), and Leech-Wilkinson’s comprehensive online text *The Changing Sound of Music* (2009a), essentially herald a new branch of musicology—phonomusicology. While having recorded musical sound at its centre, phonomusicology also embraces the artefacts associated with those recordings and the social contexts in which they are made and disseminated (Cottrell 2010, 15). It is a discipline which emphases those aspects of performance that notation is unable describe or even capture, and promotes “synergy in musical research between comparatively intuitive or even speculative approaches on the one hand, and more explicitly data-driven approaches on the other (Cook 2007, 154).

The examination of the development of Mary Martin’s vocal style, undertaken in this dissertation, sits firmly between the two disciplines of vocal science/pedagogy and phonomusicology.

*The Interpretation of Vocal Qualities Through Vocal/Spectral Analysis*

**What is Voice Quality?**

for voice therapy or for voice synthesis, scientists, pedagogues and performers have searched for ways to describe vocal qualities beyond the subjective terms of descriptive language. Vocal qualities are those attributes most characteristic of an individual’s voice, whether speaking or singing. Such traits have been variously described as “the total auditory impression the listener experiences” (Childers and Lee 1991, 2394), and “the distinctive attributes that describe the singing voice” (Ekholm et al. 1998, 182). Although ignoring the overall pitch, loudness and phonetic contrast in the examination of musical theatre performers’ vocal qualities might be considered perilous, other research defines vocal quality as “everything in the acoustic signal other than overall pitch, loudness and phonetic contrast” (Titze and Story 2002, 1).

One of the most compelling styles of vocal enquiry is a two-pronged, cognitive-acoustic approach combining the investigation of acoustic and perceptual elements. These studies seek to relate objective measures of the voice via acoustic analysis to the expert evaluation of voice quality (Ekholm et al. 1998, Brown et al. 2000, Rothman et al. 2001, Millhouse and Clermont 2006, Le Borgne et al. 2010). Importantly for the present research, this approach allows the identification of those aspects of vocal quality considered to be an essential part of a high-quality, technically assured voice. Such elements can then be approached within the context of acoustic analysis to ascertain those best identified through spectrographic analysis: registration, formants/ring, resonance tuning, vibrato\(^{18}\), intelligibility, style\(^{19}\)/timbre\(^{20}\)/colour.

**The Spectrograph**

The tangible dilemma faced by scientists, pedagogues and musicologists is not the term ‘vocal quality’ itself, but how to describe such a term in a meaningful and generally plausible way. As previously discussed, acoustic analysis is a useful means of exploring the physical production and qualities of the voice across vocal science, and the pedagogical and musicological spectra. The spectrogram graphically represents the harmonic components of vocalised sound (Miller R 1996, 276). It is one of the tools readily available to researchers, underpinning the acoustic description of vocal qualities for the past twenty years as a “useful discriminator” due to the clear separation of

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\(^{18}\) Vibrato will be discussed separately, see pp 46-49.

\(^{19}\) While vocal styles are often included in descriptions of registers, in this study they are classified within timbre as a perceived style may include more than one registration.

\(^{20}\) The term timbre is often used interchangeably with the word quality. In the current research, timbre denotes the colour of the voice and is substituted for quality where it is clear that the writer is referring to a subcomponent of the range of vocal qualities.
harmonic and acoustical energy within the tone (Howard 2009, 69).

The spectrogram has been described as an “objective representation of what once existed only in subjective realm” (McCoy 2012, 53) and through its capacity to visually record that which was heard, a verification of correct auditive impressions (Ojamaa 2005, 68). Nicholas Cook observes that “[t]hey are most useful for homing in on the details of performance – the unnotated nuances that are responsible for so much of music’s meaning (Cook 2009, 226).

The acceptance of the acoustical analysis of the voice in the pedagogical field was slow, as shown in Miller and Schutte’s apologia lamenting “the spectrum analyser has not had a greater impact on the theory and pedagogy of singing” (Miller and Schutte 1990, 329). These writers present several ways of employing spectrographic technology to locate the upper formant frequencies in the soprano voice quickly and accurately—including the singer’s formant—although debate concerning the presence of singer’s formant in the soprano register is ongoing. The accompanying discussion describing the use of vibrato extent to define the higher harmonics is particularly relevant in the analysis of the recorded voice (Nair 1999, 205).

Building on earlier acoustical studies of the singing voice, Garyth Nair’s landmark study synthesised the findings of vocal science (Vennard 1967, Sundberg 1987 and 1997, Miller and Schutte 1990, Titze 1994). Aimed primarily at real-time, computer-generated visual feedback (VRTF) in the voice studio, Nair presents the acoustical analysis of the voice in relatively simple terms, robustly justifying the continuing use of spectrographic analysis in the exploration of vocal quality. In particular, his rigorously detailed descriptions and interpretation of the spectrogram and the power spectrum make it possible for the scientific layman, voice pedagogue and student to further understand the processes effecting the production of vocal qualities in the singing voice.

With the advent of the twenty-first century, the acoustic analysis of vocal quality has become more readily accessible due to the concurrent, ongoing development of several different systems for visual, real-time feedback. Systems placing spectrographic

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21 Some scholars claim the singer’s formant is weaker or non-existent in female opera singers, in part due to the wide distance between harmonics in high voices (Sundberg 1977, Wolfe et al. 2009). Others argue in favour of a clear singer’s formant in females between 3000 and 4000 Hz “in the zone of the spectrum where auditory acuity is optimal” (Scotto Di Carlo 2007a).
analysis at their core—such as Voce Vista and WingSingad—have crossed the vocal pedagogy/musicological boundary as research tools, as exemplified in the works of Donald Miller and Harm Schutte (Miller 2008, Miller and Schutte 2005,) and David M. Howard (Howard 1993, 2002, 2009, Howard et al. 2004, 2014, Vos, Daffern and Howard, in press).

**Visualising Vocal Qualities with the Spectrograph**

The successful use of visual real-time feedback (VRTF) within and beyond the vocal studio over the last twenty years is strongly grounded in the literature of vocal science and pedagogy, and illuminates a pathway to the meaningful acoustic description of the voice outside the voice laboratory and studio (Callaghan et al. 2004, Howard et al. 2007, Nix et al. 2008, Miller, 2008, 2012, Wilson et al. 2008).

The laryngeal and vocal tract qualities of the voice have been acoustically documented, and exemplars of the spectrographic profiles of vowel formants and the singer’s formant are well established (Sundberg 1987, 2001, Nair 1999, Howard and Angus 2007, Miller 2008). The registers of the female voice are also well established and include chest, middle and head voice (Sundberg 1987, Sundberg et al. 1993, Schutte and Miller 1993, Nair 1999, Miller 2008). The middle voice may include chestmix and headmix (Kochis-Jennings et al. 2012) and the head register may also include flageolet register at the very highest end of the female vocal range (Miller and Schutte 2005, Svec et al. 2008).

Resonance tuning is widely used by both males and females (Garnier et al. 2010, Henrich et al. 2011, Vos et al. in press) and can facilitate singing at high pitch, enhancing vocal power and/or controlling the timbre of the voice (Wolfe et al. 2009, Henrich et al. 2011). Both Nair (1999) and Miller (2008) use the spectrogram and power spectrum to illustrate the ways female singers use resonance tuning to negotiate the *passaggio* between registers and reinforce the fundamental in flageolet register. Resonance tuning in sopranos is also well known to have a profound effect on vowel perception. When the vowel sung on the fundamental pitch moves above the first formant of the spoken vowel, the intelligibility of the vowel is compromised (Hollein et al. 2000, Joliveau et al. 2004).

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22 Vocal register is defined as “a series of frequencies that are perceived to be of similar quality and produced in a similar physiological manner” (Kochis-Jennings et al. 2012, 183).
Vocal style\textsuperscript{23}/ timbre\textsuperscript{24}/colour

The perceptual vocal qualities of style, timbre and colour are potentially the most characteristic markers of the vocal qualities pertaining to individual performers, particularly as regards the musical theatre vocal styles belt and legitimate. Often focussing on the voice of just one performer, collaborative investigations between traditional vocal scientists and pedagogues continue to use spectral analysis in the illustration of dramatic differences between classical vocal production and musical theatre styles (Estill 1988, Schutte and Miller 1993, Sundberg and Romedahl 2009, Sundberg et al. 1993, 2012, Thalen and Sundberg 2001, Stone et al. 2003, Popeil 2008, 2009, Echternach et al. 2014). Advantageously, the use of a single subject in a comparison of voice qualities means the instrument remains the same. Any changes seen to the acoustic output can be attributed to changes in the vocal qualities (Estill 1988, 37). While vocal timbre is most often described in the language of imagery, i.e. warmth, clarity, brilliance, darkness, vitality, (Miller R 1996, Wapnick and Ekholm 1997, Garnier et al. 2007), and there is still some uncertainty about the precise acoustic correlates of these qualitative descriptors, the qualities can be seen in the redistribution of sound energy across the spectrum (Callaghan 2004). Higher formant frequencies are often associated with the perception of brightness and darkness, a stronger fundamental frequency, lower partials and a less pronounced singer’s formant (Ekhom et al. 1998, Garnier et al. 2007).

The long standing employment of acoustic analysis is not apparent in traditional musicological research methodologies. While voice scientists and pedagogues have embraced the widespread availability of analytical software for the examination and manipulation of vocal quality, musicologists have approached the use of spectral analysis with a certain amount of suspicion. Such a phenomenon is particularly apparent in phonomusicology—a field that is strongly grounded in historical instrumental music—where the spectrogram is looked on as something of a two-edged sword in the analysis of recordings (Cook 2009, 226, Leech-Wilkinson 2009a, 8.64).

The evident literature crossover between phonomusicology and the fields of voice

\textsuperscript{23} While the term 'vocal style' is frequently interchangeable with 'registers', in this study they are both classified within timbre as a perceived style, such as Legitimate or belt, and may in fact include more than one registration.

\textsuperscript{24} The term 'timbre' is often be used interchangeably with the word 'quality'. In the current research, 'timbre' denotes the colour of the voice; it is substituted for 'quality' where is it clear the writer is referring to a subcomponent of the range of vocal qualities.
science/ pedagogy is limited given the former’s focus on the extrinsic characteristics of instrumental style such as tempo (Bowman 2003, Timmers 2005, Lott 2006, Da Costa 2012), rubato (Timmers et al. 2000, Da Costa 2012), and portamento (Katz 2006, Leech-Wilkinson 2006). Even when the voice is the primary object under examination (Leech-Wilkinson 2007, 2010, Lacasse 2010) reference to the literature of vocal science and pedagogy is conspicuously absent, perhaps due to an assumption that those studies generally focus on the operatic voice (Lacasse 2010, 246).

Although an objective mechanism, the spectrogram shows every sound found in the recording, including artefacts from the recording process, as well as dirt and scratches. As such, great care must be taken in the extraction of data from the spectrogram. In this instance, early instrumental recordings can be problematic, as the acoustic properties of recorded instrumental music are not as easily captured on the spectrogram as the harmonic complexities of the human voice. Nicholas Cook has suggested that if it is “hard to extract the information that you want from them [spectrograms], then an alternative approach is to extract just those aspects of the sound you are interested in and create customized ways of representing or manipulating them for analytical purposes” (Cook 2009, 228). Fortunately, in a study of a single voice, the nature of the human voice may provide a rich palette of spectral qualities that can be readily interpreted from the spectrogram itself.

The development and use of VoceVista

Garyth Nair introduced the spectrograph into the voice studio in 1999 with the publication of his book Voice—Tradition and Technology (Nair 1999). This book synthesized, in relatively simple terms, the latest findings of voice science and medical technology and explained how to apply them as a real-time biofeedback tool in the singing studio. Nair envisaged this computer generated visual real time feedback as “a bridge device…to help the singer see and correct vocal detail and then advance to hearing and feeling the improved vocal production” during traditional vocal training (Nair 1999, 69). Voice—Tradition and Technology contained a CD Rom with a fully functional copy of the acoustical analysis software GRAM, developed by electrical engineer Richard Horne,25 exponentially increasing the use and availability of

25 Horne, an electrical engineer, originally developed Gram in 1994 to study the audio frequency spectrum of bird song, releasing the software on the Internet as freeware. This resulted in Gram’s use in a diverse range of applications, including the analysis and identification of biological sounds, human
spectrograph technology around the world. The book also included three chapters exploring the use of real time visual feedback in other related fields: the use of the electroglottograph (Miller and Schutte), special challenges in voice training (Verdolini and Krebs) and speech pathology (Robert Volin).

Nair continued to work with GRAM, reiterating the usefulness of visual real time feedback in the voice studio for identifying formant resonance, vowel placement, consistency of vibrato and other issues of interest to the voice student (Nair 2007 and 2009), while Horne began work with Miller and Schutte in the further development of real time visual feedback. This partnership, resulted in the more sophisticated VoceVista, a “feedback and analysis system…which processes the signals of the microphone and electroglottograph” (Miller 2008, 122). Miller included a compact disc of the full version of the VoceVista software with this publication, increasing the availability of voice analysis software to his target audience.

In the fifteen years since their introduction, GRAM and VoceVista have become perhaps the most widely used, and inexpensive, voice analysis software in the studios of vocal pedagogues and their students (Hoch 2014, 192). VoceVista in particular, has been recommended as one of the programs that gives objective feedback on vocal acoustics (McPherson and Welch 2012, 564), and has been the central tool for the visualisation and analysis of the voice in a wide range of vocal studies.

The core of the published research using VoceVista and its precursors, over the last thirty-five years, comes from the many publications of Donald Miller and Harm Schutte. Research papers published in a variety of scientific and pedagogic journals have included intensive studies of the vocal tract (Miller 2002), resonance strategies (Schutte et al. 2005), and vocal registers (Miller et al. 2002, Miller and Schutte 2005). Other scientific studies using VoceVista include: James Stark’s detailed investigation of the Bel Canto technique, in which he presents data from a series of laboratory experiments carried out with Miller and Schutte at Groningen (Stark 2003); John Nix’s 2004 study on vowel modification (Nix 2004); and Nicholas Perna’s study the acoustics of the tenor passaggio and head voice (Perna 2008). VocaVista played a principal role in Raymond Chenez’s recent dissertation on vocal registers of the countertenor voice, in

speech, vocal and instrumental music, the evaluation of musical instruments and the calibration of home audio systems (Nair 1999, 75-6).
which he analysed the voices of eleven North American countertenors (Chenez 2011).

Research by Schutte and Miller has also supported the use of VoceVista in the analysis of commercially produced recordings. They concluded that the successful bridging of the *passagio* in both males and females was the consequence of the “skilful use of resonance [rather] than muscular adjustments to the glottal voice source, and that this is seen clearly in the spectrogram” (Miller and Schutte 2005, 29). At the same time acknowledging that the *formant* tuning noted in the acoustically controlled examples was also apparent in commercially recorded examples (Schutte et al. 2005, 292; Miller 2012, 6).

VoceVista has been used in a variety of pedagogical studies with both adults and children. Investigations have been carried out in the voice studio with female voice students (Callaway 2001),26 in master classes with children aged 7 to 13 (Brunkan 2009), and in choral rehearsals with undergraduate students (Nix et al. 2008). In these studies, the participants had a positive opinion of the spectrogram and appreciated its ability to provide a visual picture of their vocal strengths and weaknesses, confirming its usefulness as a feedback tool for visual learners (Brunkan 2009, 12). Nix et al. reported that, even in a group rehearsal situation, students were able to see a concrete difference in contrasting sounds, cut-offs, consonants, and the effects of different tone colours and techniques (53).

These finding support the observation that “technological applications are only of potential benefit if they are easy to use by non-specialists and provide information that is meaningful, valid and useful” (Howard *et al.* 2004, 136). An important maxim, not only in the field of vocal pedagogy but also in the field of musicological research, when attempting, like this study, to tread a middle path between art and science. It is for this reason, coupled with its widespread use outside the voice studio that I have chosen to use VoceVista as the primary analytical tool in this study of the voice of Mary Martin.

**Sources**

*The piano-vocal score*

The most accessible forms of sheet music used in this study were piano and vocal scores

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(PV), which contained most, or all, of the vocal and incidental music used in a show. Examination of archival material indicates that scores were initially prepared by the composer and a proof copy made by a copyist to be forwarded to a music publisher. The publisher would then prepare a score, which could be easily supplied for future performances. During the run of a show, a series of individual vocal scores of the most popular songs were released. These scores were mass-produced advertisements for the show, with highly decorated covers often featuring photographs of the stars, writers and producers of the show. They were often available in the theatre for easy sale, in a variety of keys, contained a single verse and chorus of the song and, until the 1960s, ukulele charts to enable non-pianists to accompany themselves. As the show increased in popularity, vocal selections and dance arrangements of the music were published and widely distributed; these later arrangements have been disregarded in this study as they represent a secondary source at a distance from the original show or performer.

Unpublished sources

Composers’ manuscripts
The richest source of information regarding the development of roles and music in the period was unpublished materials across the world. The composers and writers of the shows included in this investigation played key roles in the development of American musical theatre and have become the focus of large collections in the national,27 university28 and regional libraries29 that have close ties to particular composers, performers and/or entrepreneurs. Composers’ sketch materials, such as those found in the Hammerstein collection in the Library of Congress and the Cole Porter Collection at Yale University, can reveal hitherto unknown information about the development of a work and the role that performers such as Martin played in that development. Recent studies of single shows, such as James Lovensheimer’s 2003 “Musico-dramatic study of South Pacific” and mcclung’s30 in-depth study of Lady in the Dark (mcclung 1995 and 2007), highlight the importance of these information sources. However, to date, multiple collections of these sketch materials have not been used in the study of the

27 This study uses materials from the Library of Congress, the British Library, and the National Library of Australia.
28 In particular the Stirling Memorial Library at Yale University and the DeGolyer library at the Southern Methodist University.
29 Such as the New York Public Library and the Library of New York.
30 Dr. bruce d. mcclung is Associate Professor of Musicology at the University of Cincinnati’s College-Conservatory of Music. As the reader will note in the attached bibliography, and other sources, Professor mcclung prefers lower case to be used when writing his name.
development of a single performer: an oversight this study aims to remedy.

Conductors’ scores and orchestral parts

It is possible to obviate some of the difficulties faced by musicologists, particularly pitch, when dealing with early recordings when sources used in the pit or recording studio are consulted. Very few composers orchestrated their own compositions on Broadway, relying instead on a small group of specialist orchestrators including Robert Russell Bennett, Don Walker, Hans Spialek and Ted Royal. An orchestrator would be given a lead sheet with melody, lyrics, and perhaps some chord suggestions and would provide the orchestral arrangement in the form of the conductor’s full score Suskin 2009, 6). The conductor would then mark any changes on the full score; often in the form of jottings or a single symbol, but rarely with an eye to the researcher who may come fifty years in the future.

However, what may appear as cryptic comments on a conductor’s full score often also appear written on individual parts by members of the pit orchestra, who need to communicate the directions to other players who may need to play from the copy. Consequently original orchestral parts were also used in this study to trace changes in orchestration, pitch and tempo during the run of a show, as well as confirming differences between the published and performed keys. Non-musical notations on the orchestral parts also offer an insight to the musicians of the period that is beyond the scope of this study to explore.

Non-musical material artefacts

In the pre-digital age of the twentieth century, busy men employed secretaries to maintain their paperwork, and stars kept scrapbooks filled with newspaper clippings as well as short notes, memos and letters treasured as personal mementos. A vast quantity of these ephemera has made its way into the collections of various institutions and has been of particular importance when exploring actions and events that are only otherwise available through the diffracting lens of the news media of the period.

Recordings

Bennett was the most prominent orchestrator in New York and worked on the orchestrations of over 300 Broadway shows from 1916 until 1975 (Suskin 2009, 30); including Show Boat, South Pacific and The Sound of Music.
As the emphasis of this study is the voice itself, the primary data used for the analysis are recordings. All the recordings used in this study come from a period that predates the now common understanding of recording as an art work in its own right. They come from a time when the intentions of record producers were of necessity more transparent than today and the focus was on the reproduction of the sound of the performer for a new and growing audience. Many things that are now considered normal manipulations to recorded sound, including improvements to basic elements such as pitch, balance, and tone colour, were not available to the recording technician in the first half of the twentieth century.

A variety of commercially released recordings were used throughout this dissertation; including original recordings on 78 rpm discs, early vinyl long play albums, and remastered records and CDs. Non-commercial recordings were also used, including record transcriptions of live radio and television programs and some live, in-theatre recordings. These recordings were accessed from collections held by the Library of Congress, the New York Public Library and Yale University’s Stirling Music Library, as well as from a variety of private collections. Like commercially produced recordings, these non-commercial recordings pose a variety of challenges but provide a rich source of insight to the development of vocal style.

**Research Methodology and Analytical Tools**

This study views the development of vocal style during the twentieth century through a multifaceted lens, and aims to provide an integrated, three-tiered approach to the analysis of vocal style. Martin’s place as American Everywoman is situated within the environment of mid twentieth century musical theatre through theatrical ephemera, contemporary newspaper articles and reviews, and contemporary theatrical and non-theatrical magazines. Broad elements of vocal style, mediated as much by the performer as by the composer, are explored through published and unpublished musical materials and grounded in a historical narrative of social and technological change; while the intricacies of individual vocal techniques are explored through the analysis of a wide range of contemporary recordings.

**The use of recordings and the audio transfer process**

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32 These recordings are discussed more fully in Chapters Six and Eight.
The difficulty with using older recordings to study performances is that it is virtually impossible to know everything that has gone into the recording chain, from the original performance to the waveform that is being analysed. There are three aspects of the recording chain that need to be considered in this project; the original recording, the repeated transcription processes and the final digitisation of the recordings.

There is little that can be identified with exactitude in the original recording process. The room, the microphone, the recording engineer and even the recording media are almost certainly unknown. However, what is known about early recording practices can allow a certain degree of certitude in the analysis that is being undertaken. There are a number of ways that early recordings are distorted, but that are unlikely to impact on this study. Even though electrical recording dramatically improved frequency response, the range that could be captured was still under 15kHz and nothing below 60Hz (Leech-Wilkinson 2009a, 3.1 para 29). However, those limits are far enough outside the frequencies that are used in this analysis of the female voice to be of little or no concern. The dynamic range of the recordings has probably been compressed, reducing loud sounds and amplifying soft sounds. However, as vocal loudness is not a part of the analysis, again this can be disregarded.

With a modern mixing desk, the mixer/engineer is able to change the frequency response of the singer’s microphone very precisely and continuously throughout a song. However, the recordings in this study pre-date graphic equalisers and the most a mixer could do to a singer in the 30s-50s was to turn the mid-range up and down, relative to the treble and the bass. This is an incredibly coarse adjustment, comparable to adjusting a movie by turning the red, green or blue up or down—it does not change what is on—screen, nor does it change how many different colours are there. It just puts a very obvious cast over the whole thing.

If a recording has been copied and re-copied many times over the years, it may have been compressed a little and/or lost some frequency response each time. In addition, any digitally remastered recordings will have been cleaned up in some way, and it is not possible to know what might have been done. In order to minimise potential distortions, caused by multiple transcriptions and remastering, as many original

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33 There are a number of exceptions in this dissertation, such as radio and television transcriptions, and they will be discussed as they arise in later chapters.
recordings were sourced as possible and all sound recordings were treated the same way, using the same equipment and software. All 78rpm discs were flat transferred to digital format at Artsound FM (Canberra, Australia) and the Jazz Museum Bix Eiben Hamburg, while other analogue recordings were flat transferred using Audacity® digital audio editor; no post transfer processing was undertaken. All audio files were converted to Waveform Audio File Format (WAV) using Wavepad Sound Editor Masters Edition v5.06, which is distributed by NCH Software. In order to maintain maximum audio quality, the files were saved in PCM uncompressed WAV format at 44100 Hz samples per second and 16 bits per sample. The WAV files were then analysed using the VoceVista 3 voice analysis software for Windows.

All final analysis was completed using a Dell Inspiron 1010 with an Intel® Atom Processor, CPU Z530 @ 1.6 GHz, 1.00GB RAM, with integrated sound and graphics cards (Intel(R) High Definition Audio HDMI, Realtek High Definition Audio, Intel® HD Graphics Family and NVIDIA GeForce GT 525M) with no special modifications, running Windows 7. After discovering an unexplained graphic incompatibility between this computer and Voce Vista, all graphic examples were created using a Toshiba Satellite Notebook Intel® Core™ i7-4700MQ CPU @ 2.40GHz, 8.00GB RAM; with integrated sound and graphic cards (Intel® Display Audio, Realtek High Definition Audio, Intel® HD Graphics 4600 and NVIDIA GeForce GT 740M), running Windows 8.1. Where necessary, for clarity of labelling, the resulting spectrograms and power spectrums were edited using Microsoft Paint.

The in-depth analysis of Martin’s vocal style rests on three vocal measures: tessitura with its concomitant point tessitura, vibrato, and the spectral analysis of her voice. These three analytical measures, used separately by researchers for many years to describe the voice and its use in various settings, are able to provide a multilayered, quantifiable measurement of the voice and this study aims to bring all three of these

34 In this study “flat transfer” refers to a digitization process with no post-transfer processing with the possible exception of anti-click or noise reduction software (Timmers 2007a, 2873.
35 The Nyquist Sampling Theorem states that a sample waveform contains all the information, without distortions, when the sampling rate exceeds twice the highest frequency contained by the sampled waveform, a sampling rate of 44,100 Hz is sufficient to reproduce up to 20,000 Hz with no loss of fidelity. None of the examples used in this study require this level of bandwidth and focus on levels under 5000 Hz.
37 Bitmaps were cropped to isolate particular sections and clarifying text and symbols were inserted. The actual spectrograms were not edited in anyway.
together to form an in-depth picture of the voice of an individual performer. This study does not claim the depth of analysis that vocal science scholars are able to bring to this discussion, but offers a hybrid quantitative methodology intended to bridge the gap between their approaches and those of traditional musicology.

Visualising the Voice: the Sound Spectrograph

In order to have objective as well as subjective meaning, any study of vocal style and qualities must be informed by the voice as an aural cultural trace, to be heard and described qualitatively. However, it can also be regarded as a sounding object, which may be analysed visually through its acoustical properties (Bele 2005, Garnier et al. 2007, Morange et al. 2010, Leech-Wilkinson 2010). The sound *spectrograph* was first developed in the Bell Telephone laboratories in 1941 and described in the *Journal of the Acoustical Society* in 1946 (Koenig 1946). Since that time, it has become an essential tool to a variety of disciplines, such as acoustics, linguistics, speech therapy, animal and bird studies, but in particular the study of music and the human voice.

Individual *spectrographs* differ in the form and presentation of their display, but will generally display the sound in three forms, the waveform envelope, the *spectrogram* and the *power spectrum*. Figure I—1 displays a screen shot from VoceVista. The waveform envelope displays the microphone signal in compact form and may be used to imply the relative sound pressure level over the length of the associated *spectrogram*. To avoid any clipping of the signal, the waveform envelope should not reach the limits of the display (Miller 2008, 13). The *power spectrum* is a two-dimensional graph, of a particular moment in the *spectrogram*. The individual partials of the tone are displayed on the x-axis, and the relative *amplitude* of each partial is measured against the y-axis. Thus it is possible to see which *frequency* components are dominant at that time. In this study, the information generated from this graph is, on occasion, extracted and used separately.

The *spectrogram* is a visual display of the *frequency* spectrum of a sound signal generated by the *spectrograph*. It takes the form of a three dimensional graph which, through Fourier transformation, displays the individual harmonics of a tone. Like music notation, the x-axis (horizontal axis) corresponds to time and the y-axis (vertical axis)

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38 In this study the long time average spectrum segment is 200 milliseconds, which approximates one complete *vibrato* cycle in real time (Miller 2008, 9).
Figure I—1: Graphic output of VoceVista 3.3 showing the waveform envelope (top left) the spectrogram (bottom left) and the power spectrum (right).

displays the frequency or pitch of the partials in kHz from lowest to highest. The relative intensity of the fundamental and its harmonic series is indicated by a progressive colour intensity of the resultant waves. The intensity scale can be monochromatic (usually greys) or in a variety of colours.

In the analysis of recordings, the spectrogram is something of a two edged sword. It is unquestionably objective, and its greatest advantage is that it shows all of the sound that is present in the recording. The frequency, loudness and length of every sound made by the target vocalist, accompanying instruments, and voices, appear on the screen, making it possible to see exactly what performers are doing (Cook and Leech-Wilkinson 2009, 14). Unfortunately, this can also be its greatest disadvantage, and particular care must be taken when separating extraneous noise from the signals from the voice under study.

Over the last twenty years, the rapid development of affordable information technology has made spectrographic technology readily available to anyone with a desire to use it.

39 Including any imperfections on the record itself, such as cracks fine scratches and ingrained dirt.
Researchers and practitioners alike have used programs such as Sing and See, WinSingad, and VoceVista have been used in voice studios throughout the world to provide real time visual feedback in the voice studio and variously explore, describe, and develop different singing styles in classical, musical theatre and contemporary commercial music vocal styles. A recent addition to these computer-based tools designed quite specifically for musicologists is the Sonic Visualiser, developed at the Centre for Digital Music at Queen Mary, University of London for viewing and analysing the contents of music audio files.

All analytical examples in this investigation have been extracted from VoceVista 3.3. While VoceVista does allow the combination of the spectrogram and the power spectrum in one graph, as shown in Figure I—1, concerns regarding the legibility of the data require that they be shown separately. Figures I—2 through I—4 show the three types of graph developed from the data; the spectrogram, the power spectrum and vibrato. In addition, the frequency and amplitude measures of VoceVista are shown most effectively in a multimedia environment. However, in print, it has been necessary to add x and y axes in order to clarify the parameters of each example. While it is also possible to include text through VoceVista, it is impossible to align with the spectrogram and the size of the text in print form proved inadequate. Therefore the lower panel of the spectrogram was cleared and new text in a larger font was inserted. No changes to the graphs themselves have been made. Labelling of the singer’s formant area and the addition of partial numbers seen in Figure I—2 are for information only and do not appear on any other spectrograms. For ease of reference, all the spectrograms appear in Appendix A at page 319 and are labelled in numerical order according to chapter number. For example, the third spectrogram in Chapter Six will be found with the label Spectrogram 6—3. Power spectrums and vibrato graphs are included within in the text.

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40 Sing and See was developed at the University of Sydney in Australia by Dr William Thorpe, Dr Jean Callaghan, Pat Wilson, Dr Jan van Doorn and Jonathon Crane. It is presently in use around the world and more information can be found at www.singandsee.com (last accessed 29 August 2014).
41 WinSingad is a windows based software program developed through the University of York by a team including David Howard, Graham Welch, Jude Brereton, Evangelos Himonides, Michael DeCosta, Jenevora Williams and Andrew Howard (Howard et al. 2004)
42 In 2012 McCoy also included a computer program to complement the second edition of Your Voice: An Inside View (McCoy 2012).
43 www.sonicvisualiser.org last accessed 29 August 2014
Figure I—2: Example spectrogram extracted from VoceVista with added frequency and time axes. Formant area and partial numbers are included. The green cross-hair indicates the position of the F0 that appears in the power spectrum in Figure I—3.

Figure I—3: Power spectrum extracted from VoceVista showing the point of the spectrogram indicated at the green crosshair. Amplitude (dB) and frequency axes have been inserted and each partial is labelled. The green line indicates the F0 and the red lines delineate the singer’s formant area.
Figure I—4: Example of vibrato extracted from the first vowel in the spectrogram at Figure I—2. The graph includes amplitude and time axes, as well as pitch, rate and extent data.

Tessitura

Tessitura is a term in common usage throughout the musical lexicon and appears to have a commonly understood meaning that may be associated with a piece of music or with a particular singer (Titze 2008, 59). However, that meaning is not as commonly understood as it first appears and may refer to the vocal qualities of a singer as well as the pitches that are being produced. Singers, instruments and songs may have a high tessitura, a low tessitura, a beginner’s tessitura, a professional tessitura, a mental or a physical tessitura, or a tessitura providing each phrase with its centre of gravity (Hemsley 1998, 164). Tessitura evinces both a qualitative and quantitative nature and this duality is reflected in definitions in many music texts. The Grove Dictionary provides the potentially quantifiable “part of the total compass of a melody or voice-part in which most of its tones lie”\(^{44}\) (my emphasis) and the strictly subjective “lie of a role in terms of the voice range of a singer who might be cast in the part”.\(^{45}\) The Handbook

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\(^{45}\) Owen Jander and J. B. Steane ‘Tessitura’ from the New Grove Dictionary of Opera Grove Music
of Musical Terms expands on this, declaring *tessitura* to be “the register within which most of the tones will be found, disregarding occasional exceptional high and low tones”, adding the qualitative rejoinder that *tessitura* “refers to the heart of the range”. *Bakers’ Dictionary of Music* is no clearer with Slonimsky’s explanation that *tessitura* is the “proportionate use of high or low register in a given vocal range”. It is important to have a clear understanding of the original usage of *tessitura*, to appreciate the breadth of meaning associated with the term. Only then is it possible to properly use *tessitura* as an analytical tool.

When *tessitura* made its first appearance in Grove’s *Dictionary of Music* in 1884, it was defined as “the prevailing or average position of [a piece’s] notes in relation to the compass of the voice or instrument for which it is written”, a meaning which encompasses two different, but concrete, definitions— an intervallic span or a single pitch. Although the Grove’s definition has since narrowed to include only the “part of the range most used”, both concepts of intervallic span and single pitch are found labelled *tessitura* in the literature. *Tessitura* is still used in the vocal literature to characterize the subjective quality of a voice, particularly in describing the area where a voice has its optimal tonal quality and where the singer has the best control of vocal intensity (Harris 1996, 33).

All three facets of *tessitura* appear in a wide range of studies concerning the voice and vocal music. In vocal pedagogy, *tessitura* has played an important role in the development of training for young and adolescent voices, particularly in the selection of appropriate repertoire for changing voices and defining the performance difficulty in that repertoire (see Cooper 1964, Moore 1991, Harris 1996, Cooksey & Welch 1998 and Ralston 1999). *Tessitura* has been used as a tool for voice classification (Freer 1930, Drew 1937 and Thurmer 1988), particularly in recent years in relation to the *fach* system (Han 2006, Cotton 2007). In early music scholarship, *tessitura* has been used to explore the pitch relationships between voices in polyphonic music (Huron & Fantini Online ed L. Macy, http://www.grovemusic.com (Accessed 13/03/2007). Grant, Parks ‘*Tessitura*’ Handbook of Musical Terms. Scarecrow Press, Metuchen NJ 1967.


48 Ibid.

49 For example Wilson considers average pitch level to be a “reasonable definition of *tessitura*” (Wilson 2003), and Sandra Cotton insists that it is the “range in which the bulk of the notes fall” (Cotton 2007).

50 Such as in Verdi’s letter “...la Waldmann...would be fine for Amneris, in both her character and her *tessitura*...” (Elliott 2004, 239).
1989); to increase the understanding of voice type in Baroque music (Wilson 2003, Morris 1996); as an important constraint in the study of melodic movement and direction (von Hippel 2000, von Hippel & Huron 2000); and as an indicator of the use of the voice within the range of the work (Rastall 1984, Elliott 2000, Noonan 2006).^{51}

This study defines *tessitura* as the compass within the range of a melody where more than 50% of the total voiced pitches occur and is understood to be the optimal area within a vocal range. In this optimal area, the voice exhibits an effortlessness of production that is comfortable, expressive and beautiful; the singer is able to perform for long periods without tiring or injuring their voice, the voice is at its most flexible, and the performer has optimal control of vocal intensity.

In this study *tessitura* is calculated as follows:

1. The total number of voiced beats are calculated for the recording, using the quaver (eighth note) as the basic unit.^{52}
2. The duration (d) of each individual pitch is calculated and expressed as a percentage of the voiced beats.
3. The two highest resultant percentages (including all pitches in between) are combined to make a total over 50 percent of the total number of voiced beats. If the total is not more than 50 percent, the next highest percentage, also with any pitches in between, is included in the calculation.

*Point tessitura*

Richard Rastall is one of the few scholars to differentiate between *tessitura* as an intervallic span and as a single pitch. While acknowledging the importance of *tessitura* in determining the use of a voice within the range of a melody, Rastall also identifies a point at which the melody and the voice are concentrated. He illustrates its use as an analytical tool in his assessments of the characteristics of individual voices in songs from the York Mystery Play Cycles (1984, 196), as does Rushton in his discussion of buffo roles in Mozart’s works (1997, 417). It is a calculation that takes account of length of time a performer sustains each pitch within the range of a song. The median of the range may be overly affected by occasional extreme high and/or low pitches;

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^{51} Elliott, in her 2000 doctoral thesis lists a long list of different types of *tessitura* the number of which seem to negate the actual usefulness of the term, at least as far as this study is concerned.

^{52} Quaver = 1, crotchet = 2. Minim = 4, semi-quaver = 1/2 etc..
however, by averaging the pitch and duration, Rastall’s calculation allows a more accurate assessment of where the voice lies within the tessitura. Given its close relationship with tessitura it will be referred to as point tessitura throughout this study.\(^{53}\)

This point usually falls within the wider tessitura of a performance and exhibits a close relationship between the quantitative and qualitative aspects of tessitura. It is a mathematical calculation which may in fact give an indication of the comfort of the tessitura itself. Since two songs, or two versions of the same song, may appear to have the same range or tessitura, but a small change in the pitch of the point tessitura may change the ease with which the singer performs. This is particularly pertinent when analysing recordings as it makes it possible to demonstrate a performer’s manipulation of the range and tessitura to ensure optimal vocal flexibility and health, and to illustrate the difference between two voices using the same range.

*Point tessitura* is calculated as follows:

1. Each semitone is assigned a numeric value from 1-37 (C3-C6).
2. The duration (d) of each semitone is calculated using the quaver (eighth note) as the basic unit.
3. The point tessitura is equal to the sum of the duration of every semitone, each multiplied by its pitch value, divided by the sum of all pitch durations.

\[
\text{point tessitura} = \frac{1d_1+2d_2+3d_3+\ldots 37d}{d_1+d_2+d_3+\ldots d_{37}}
\]

*Representing tessitura and point tessiture*

Over the last twenty-five years, some graphical representations have been developed in an effort to clarify the classical definition of tessitura and to enable tessitura to become a practical tool for analysis. The advantages of using such a representation is the capacity of a graph or chart to communicate a large amount of information in a comparatively small space. Stefan Thurmer created the Tessiturogram in order to develop a “statistical method for the objective and reproducible definition of tessitura” (Thurmer 1988, 327). An example of this simple bar graph above a piano keyboard can

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\(^{53}\) Rastall refers to this point as the Centre of Pitch Gravity, as the calculation is much the same as that used to establish centre of gravity. I feel that the use of the words centre and gravity convey an image that is closer to that of the mean of the range.
be seen illustrated at Figure I—5.

At first glance the above graph appears straight forward, showing an obvious clustering of tones between f (F4) and g (G4)—35% of 637 notes. The immediate confusion for the reader in this graph is understanding how there can be only 637 notes in the whole role of Sarastro. Unfortunately, Thurmer disregards sharps and flats and counts the occurrence of each note rather than the duration of those notes. He states, “G sharp and G flat are counted as G [and r]epeated notes within the same measure are counted as one”. (p 327) Potentially, this gives a quaver G the same weighting as a semibreve G natural, completely overlooking the significance of pitch duration for the vocalist. The important information for the performer is not that there are three high G4s in a song, but whether those high G4s are quavers that are part of a scale or arpeggio or a series of chromatic semibreves starting on G4, passing through G4 and extending to G4#.

In the calculation of tessitura, it is necessary to treat rhythm and pitch accurately and consistently in all versions of that melody; as variations of performance style in different recordings can result in a shift the tessitura, particularly in relation to the published score. Ingo Titze created a similar graphic ‘Tessituragram,’ (Titze 2008, 59) displaying not only pitch occurrence but also pitch duration and vibratory cycles for each pitch, all in comparison to a particular singer’s voice range profile (see Figure I—6). The Tessituragram provides a great deal information regarding the voice itself, but is visually too complex to easily use for comparison purposes within a work or performer’s repertoire. Julie Noonan adopted the far more simplified representation shown at Figure I—7 to indicate where the tessitura falls within the range of the work. This chart is clear and adapts well for comparison within, and between, works. Noonan’s chart has been adapted and expanded for use in this study, allowing for the inclusion of point tessitura within the context of tessitura and range. The bar graph at Figure I—8 displays the overall range (purple) of a song in semitones and the tessitura (yellow) of that song in semitones, within that range. The line through the bar above the apex of a black triangle indicates the point tessitura. The first bar (bottom) represents the overall value of all the above in order of their performance in the original

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54 This is not restricted to the differences between two different performers, but also within the repertoire of a particular singer, particularly one as versatile as Mary Martin.
Figure I—5: Tessiturogram showing the *tessitura* of the entire role of Sarastro in Mozart’s *Magic Flute*. (Thurmer 1988, 327)

Figure I—6: *Tessituragram* for the aria, ‘Il mio tesoro intanto’ from Mozart’s *Don Giovanni* (Titze 2008, 59).
Figure I—7: *Tessitura* of three female roles (Nellie, Liat and Bloody Mary) in Rodgers and Hammerstein's *South Pacific*. (Noonan 2006, 101)

stage production. This enables the reader to see at a glance the vocal design of the show, and to appreciate the careful manipulation of the songs by the composer to best display and preserve the voice of the performer.

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55 Note that the order of the songs may differ from that in later productions and film versions of the show.
Vibrato

Vibrato is an important feature of singing in the Western art music tradition, and by extension, western popular music. Carl Seashore, pioneered voice research at the University of Iowa in the 1920s and 1930s, defined good vibrato as “a pulsation of pitch, usually accompanied with synchronous pulsations of loudness and timbre, of such extent and rate as to give a pleasing flexibility, tenderness, and richness to the tones” (quoted in Dromey et al. 2003, 168). Regular, moderate vibrato is seen as a characteristic of balanced and correct production and the voice of the singer who is able to achieve this is perceived to be more beautiful (Robison, Bounous and Bailey 1994).

Vibrato is the periodic undulation of the fundamental frequency and is described and analysed in terms of four parameters: rate, extent, regularity and waveform, which are illustrated in Figure I—9. Vibrato rate specifies the number of undulations per second, and is expressed in Hertz (Hz). Extent is the measurement of the pitch fluctuation from the fundamental tone, expressed both in cents (one hundredth of a semitone) and as a percentage of the fundamental tone. Regularity, which describes the similarity between the rate and extent of each undulation, is particularly important as a measure of a singer’s vocal skills: the more regular the undulations, the more skilled the singer

Figure I—8: Tessitura and point tessitura of the role of Nellie Forbush expressed within the range of Rodgers and Hammerstein’s South Pacific. This chart displays the entire role (bottom) and the individual songs within the show, in order of performance.
(Sundberg 1987 p 39).

For much of the 20th century vocal scientists have asserted that vibrato is constant in a particular singer and is difficult to change (Sundberg 1987), that singers learn vibrato without thinking about it (Hirano, Hibi and Hagino 1995), and that vibrato develops more or less by itself as voice training proceeds successfully (Sundberg 1987).

However, it has now been established that vibrato rates change through training (King and Horii 1993, Seidner et al. 1995, Dromey et al. 2003, Amir et al. 2006 and Mitchell and Kenny 2008), and that the vocal styles used in musical theatre, especially belt styles, require the conscious control, and even suppression, of vibrato (LeBorgne et al 2009, Echternach et al. 2014).

Other influences on a singer’s vibrato have also been established. Prame (1994) noted that vibrato rates increased through the last few cycles of a sustained note as well as in short notes, and suggested removing those from the measurement of a singer’s average vibrato rate. Dejonckeres (1995) found that Caruso’s vibrato rate decreased when singing loudly and a link to vocal register was indicated by Dromey (2003) for both range and extent.

It is important in a study such as this, to ascertain a benchmark in vibrato during the 20th century. In 1932, Metfessel examined twenty first-class opera singers from 1900-1935 and claimed that the vibrato rate used in this period was between 6 and 7 Hz, with a mean rate of 6.5Hz. Fifty years later, Johan Sundberg confirmed this range as ideal, considering a rate of less than 5.5 Hz to be unacceptably slow, and a rate exceeding 7.5 Hz to sound nervous (1987 p 164). A brief survey of early recordings made by classically trained female singers between 1900 and 1935, revealed vibrato rates between 5.5Hz and 7.5Hz, with a mean (\(\bar{x}\)) of 6.5Hz. However, closer examination showed that recordings made prior to 1930, exhibited rates between 7.2 and 7.5Hz (\(\bar{x}\) 7.3Hz), whereas those made after 1930, showed markedly slower rates between 5.5Hz and 6.3Hz (\(\bar{x}\) 6Hz).

These findings are consistent with those of a number of other studies identifying a general slowing of the vibrato rate in classical performance through the twentieth-century.

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56 According to Dejonkeres it is possible to clearly recognise the periodicity of pitch change in frequency modulations up to 5Hz.
57 The data pertaining to this survey appears in Appendix C page 389.
century (Philip 1992, Strempel 2006, Timmers 2007b, Leech-Wilkinson 2009a, 2010 and Ferrante 2011). Popular singers in the same period, regardless of training, exhibited a generally slower vibrato rate, between 5.6 and 7.1Hz (\(\bar{x} 6.3\text{Hz}\)). This may point to a move from the classical aesthetic toward the more popular aesthetic, as recordings gave the general public greater access to a wider range of music, a question worthy of further investigation.

In the past, studies into vibrato have concentrated on singers trained, and performing, in the western operatic tradition and only recently have researchers begun to turn their gaze to singers not necessarily trained in this tradition. Singers trained in the operatic tradition, but performing primarily in different styles, have largely been ignored. The women in this study fall into all of these categories. Edith Day both trained and sang in the Western operatic tradition. Helen Morgan applied western operatic training to nightclub and stage performance in a torch song style that shortly preceded crooning as a vocal style. Ethel Merman famously had no training at all; and Mary Martin trained in the western operatic tradition for sixty years, from the age of 12, while performing in a wide range of styles and venues. It is important then, to include a discussion of vibrato in any vocal analysis of these performers.

This study aims to use vibrato to develop broader understanding of the vocal control of individual performers and as an indicator of vocal health, including levels of stress within the performance. It is possible to develop a broader understanding of the voice through the study of a singer’s vibrato. A well-controlled and developed vibrato can be indicative of the depth of training a singer may have undertaken, as well as a singer’s

Figure I—9: The vibrato wave form taken from (Sundberg 1995, 38)
general vocal control and flexibility.

The Structure of the Thesis

This dissertation explores the significance of Mary Martin in the development of a holistic female vocal style on Broadway in the middle decades of the twentieth century that adapted to the technological advances occurring at the time. The very nature of the subject requires a thick descriptive narrative in order to fully contextualise Martin’s place within that development. Martin was born at a time of rapid technological and social change and was, whether consciously or unconsciously, shaped by those changes. To that end, the dissertation is presented in three parts, each of which corresponds with important developmental periods of American musical theatre, the female voice and entertainment technology.

Part One presents three contextual chapters that establish the nature of the entertainment world that existed through Mary Martin’s formative years. Chapter One begins with a brief biographical introduction, and proceeds to situate Martin within the culture and society of mid-twentieth-century America. Chapter Two first focuses on the characteristics of three important genres of musical theatre—operetta, the musical play and the revue—and the vocal demands of the classical soprano, the lyric soprano and the belt/coon shout voice—the three vocal types associated with those genres. Subsequently it addresses the development of sound recording and broadcasting, and their impact on the voice. Chapter Three assesses the seminal proponents of vocal styles, later adopted by Martin, through three case studies—Edith Day, Helen Morgan and Ethel Merman.

Part Two examines the development of Martin’s vocal techniques prior to her first starring role on Broadway. Chapter Four establishes her ability to produce three archetypical vocal styles at the beginning of her career through early recordings made from 1938 to 1940. Chapter Five explores her rapidly developing public persona, her increasing audience rapport and her increasing vocal flexibility through her regular broadcasts on the NBC network, highlighting her easy adaption to the new broadcast medium.

Part Three explores Martin’s integration of vocal style and her progression from Hollywood starlet to American icon, first through her starring role as Venus in One Touch of Venus where she presented a three dimensional characterisation using multiple
vocal techniques. Chapter Seven continues the examination of Martin’s progressed vocal style through stage roles on Broadway and London’s West End. The part concludes with Martin’s television performances confirming her flexible, fully integrated vocal technique, her successful accommodation of the performance demands made by advancements in communication technology, and her transcendence of age and gender in the role of Peter Pan on NBC Television.
PART ONE: THE FEMALE VOICE IN AMERICAN MUSICAL THEATRE – PRE-1940

Introduction

Part One contextualizes early twentieth-century American musical theatre, providing an historical account and evaluating the significance of Mary Martin’s role in the development of an integrated female singing voice. Chapter One offers biographical information through two distinct lenses – the private world of personal recollection and the public world of the media. Martin’s public life and image until the late 1950s are explored through contemporary images, ephemera and magazines; and her private life through the recollections of Martin and those she knew. The chapter highlights Martin’s instinctive adaption to changing technology and her incorporation of a range of vocal styles from an early age. It also underlines the role that entertainment media played in Martin’s increasing impact on the broad American public in the middle of the twentieth century.

Chapter Two situates three different female vocal styles in the American musical theatre prior to the end of World War I. It shows that those approaches to singing developed in three musical genres prior to that time, continued into the post-war period, and confirmed the stereotyping of women and women’s theatrical roles in this period. The analysis of extant recordings identifies three dominant vocal styles used by women in these genres—the classical voice, the light lyric soprano, and the “coon shouter” or “belter”—and establish the roles these women played reflecting the manner of singing they employed. The heavy classical soprano of the comic operetta was predominantly found in the heroine of romantic tales set outside the American experience. The lighter, lyric soprano epitomised the modern American girl found in the musical plays increasingly reflecting life in the United States of America. The belter—who still frequently appeared in black face—played older, ribald and more experienced roles.

The first two decades of the twentieth century witnessed the commencement of dramatic advances in technology, and the second part of the chapter examines the simultaneous development of recording and broadcasting, exploring the impact of the associated technologies in the shaping of female vocal characteristics. The improvement in microphones and electric recording significantly affected the entertainment industry, as did the rapid uptake of broadcasting and playback technology during the third and fourth decades of the twentieth century. This is especially apparent in relation to the
croon style, as the new technology enabled its development.

Chapter Three provides an in-depth examination of three pre-eminent musical theatre performers—Edith Day, Helen Morgan and Ethel Merman—who were, in many respects, overtaken by emergent technologies. Minneapolis soprano Edith Day—who created the poor little shop girl character in the ground-breaking Cinderella musical Irene of 1920—went on to become one of the most successful sopranos in London’s West End. Her lissom beauty, sparkling personality and agile lyric soprano voice made her immensely popular on Broadway and in the West End. However, the spectral analysis of her recordings demonstrates that as she grew older, her voice developed a heavier, less flexible mezzo soprano timbre. Although no longer suited to the role of the young soubrette, she was unable to alter her vocal timbre to accommodate the demands of the new, more intimate style of musical theatre.

The life of nightclub owner, singer and actress Helen Morgan was reflected in her roles in Show Boat and Applause. Whether singing from the stage or the lid of a grand piano, Helen Morgan’s light soprano voice and melancholic songs moved listeners. Hers was the voice of the prohibition era—the roaring twenties. Analysis of Morgan’s recordings suggests that technological developments and the transformation of intimate torch songs into the low croon of the microphone singer, aligned with this singer’s failing health and lack of vocal training, prevented her from following the stylistic transformations becoming increasingly prevalent in contemporary musical theatre.

A star on Broadway for decades, Ethel Merman brought life to many of the roles now being revived in the twenty-first century. Hers was a unique voice—loud, brassy, brash and audible to the very back row of the theatre. However, her old-fashioned vaudevillian delivery and choice of just one particular vocal style at the expense of all others restricted her success to particular character types and a limited number of roles. The examination of Merman’s early cinematic appearances, and an analysis of her vocal style in those films, reveals her origins as a torch singer. Although she sang in that style throughout her career, it was not effective enough to remain a viable part of her vocal character. Blessed with a voice and personality too large to be contained by radio, television, or film, Merman eventually became a caricature of herself.

These case studies consider the life, influences and career of each singer, assessing the performance demands of the roles they played through examination of the tessitura and
point tessitura. Concomitant with that assessment will be the spectrographic analysis of these three voices in performance. The chapter will demonstrate that none of these women were able to transition into the intimate vocal styles demanded by the development of recording and communication technologies, and that this inability to adapt significantly restricted the scope of their careers. Furthermore, the chapter establishes the context in which this thesis demonstrates Mary Martin’s capacity to adapt to the changing vocal demands placed upon performers in the face of an evolving entertainment industry.
CHAPTER ONE: A VERY PUBLIC LIFE

Each individual does not totalize directly a whole society, he totalizes it by way of the mediation of his immediate social context, the small groups of which he is a part (Ferrarotti 1981, 23).

Mary Martin spent fifty years as a leading lady of the stage, screen, radio, and television. Yet for such an accomplished public figure, once recognised as the iconic Broadway star, Martin is less well known today than many of her contemporaries. This first chapter presents a partial biography of Martin, focussing firstly on her childhood and adolescence, her early career as a dance teacher and band singer, and the period she spent auditioning in Hollywood before her eventual signing by Lawrence Schwab in 1937. The narrative proceeds with an examination of Martin’s commodification by Hollywood, the role of her second husband in her career development and her return to Broadway. The chapter concludes with a discussion of the role of the magazine in the development of her public persona and acceptance by American society.

The chapter highlights two imperative aspects of the current research that are essential to the understanding of Martin’s versatility and her influence in American society: the factors which engendered a fertile environment for Martin’s continual development and flexibility as a performer, and the ways in which she was personally and vocally positioned to influence American women as a role model.

Martin’s Early Life and Career

Childhood in Weatherford, Texas

All my life is full of circles…a circle and a circle and a circle, dissolving and expanding, touching other circles, closing again… when one circle breaks, another starts. Then they merge (Martin 1977, 12)

Mary Virginia Martin was born on the first day of December 1913, in the bedroom of her parents’ house in the small town of Weatherford, not far from Dallas, Texas, a town

[s]o small, you might miss it if you winked while driving through. A sleepy place of warm, nestling homes, peach orchards and watermelon patches. All in one tight little landscape of pastel colours. (Biographies in Sound “Meet Mary Martin” October 16, 1956)

Mary Martin was the younger of two daughters born to Preston and Juanita Martin and had a comfortably middle class upbringing. Her father was a successful lawyer in
private general practice and her mother had been a violin teacher. Mary was born ten years after her sister Geraldine, against the advice of doctors and at considerable risk to her mother. Geraldine and Mary remained close all of Mary's life, and “Sister” (as Mary called her) filled the role of secondary mother after Mary’s marriage ended, while her mother undertook the upbringing of Mary’s young son, Larry. The family lived in a comfortable house in Weatherford, Texas, which they had owned “free and clear” prior to the 1910 census. Throughout her life, Mary made the most of her naïve, country-girl image, although she readily confessed that she led what she saw as an idyllic country upbringing:

Never, never, never can I say I had a frustrating childhood. It was all joy. Mother used to say she never had seen such a happy child – that I awakened each morning with a smile. I don’t remember that. I do remember that I never wanted to go to bed, to go to sleep, for fear I’d miss something. (Martin 1977, 20)

In contrast to the urban childhoods of Day, Morgan and Merman, Martin was allowed to roam freely throughout the town and its environs. Her autobiography describes her romping through the landscape of her childhood as though it had been put there for her and her alone. Recollections of those who shared her childhood concur:

Mary was always pretty much of a tomboy when she was small, she’d always want to hang around with the rest of the boys, and we’d always go about three blocks from home, there’s a hill called Oyster Hill…Three of us boys started up there one Saturday morning and Mary came along and said: “I’m going too.” Well, we didn’t like it at all…we told her that if she didn’t go back home why, we’d pick up a rock and threw it on her feet. And we did throw several practice rocks. But it didn’t faze Mary at all. Finally, I picked up one I could barely lift, and I said, “Mary if you don’t go home I’m gonna throw this rock on yer foot just as sure as we’re here.” She didn’t go home and sure enough I dropped that big heavy rock on her right big toe, and to this day there’s a scar on it.58

Many years later, this short letter to the editor in Life, with its accompanying photograph shown at Figure 1—1, illustrates Martin’s joy in life and, coincidentally, the

Enclosed is a snapshot of the birthday party guests of my nephew…taken in Weatherford, Texas about 30 years ago. In the center front you see barefoot Mary Martin, who was overheard to say, “When I grow up, I am going to be the leading lady on the stage. What are you going to be, Lenora?” Lenora answered that she was going to marry and raise babies. Mary then proceeded to remove her shoes and do a toe dance for the crowd.

first suggestions that she wanted a career on the stage:

Martin spent her childhood constantly singing anywhere that “would turn me loose”—outside her father’s courtroom, at the fireman’s ball, in churches of all denominations, “the Garden Club, the Music Club…the Lions, the Rotarians, the Elks, the Shriners and the Knights of the Pythias”. 59 Martin dreamed of being an opera singer, a coloratura, and began vocal training at the age of twelve with Helen Fouts Cahoon, Head of Voice at Texas Christian University. Cahoon demanded classical repertoire in voice lessons and encouraged Martin to apply classical techniques to the popular music that the teenager was constantly singing, thereby blurring the distinction between classical and popular styles. Thus began a process that continued throughout Martin’s career; she would hear a vocal piece, learn the best way to perform it and then assimilate that style into her rapidly developing vocal repertory. Cahoon also inculcated the basis of a vocal regimen that was to prove essential in Martin maintaining her vocal health during her five-decade career.

59 Except where noted otherwise, all quotations in this section are from Mary Martin’s 1977 autobiography My Heart Belongs, London, W. H. Allen.
In September 1930, Martin was enrolled as a boarder at Ward-Belmont, a junior college, preparatory school and conservatory of music in Nashville, Tennessee. Although Martin later referred to the school as a “young ladies’ finishing school,” according to an information booklet (c1940) one of Ward Belmont’s aims was to foster a “permanent love for gentle, gracious living,” and it offered courses in “literature, science, music and the other arts” in preparation for a college and/or university education. The college, while situated more than 1000km from Weatherford, was the same junior college that her sister had attended and where Martin’s close friend (Bessie Mae) had already completed a year. Martin was excited at the prospect of attending. At first, she adored it, making many friends and singing at every available opportunity, but it was the first time she had been away from her family and where she was constrained by rules that she could not influence. Her parents had never questioned her extracurricular activities during these high school years, and Martin relied on a photographic memory to cram for exams. With her dress, behaviour, and diet closely regulated, life at Ward-Belmont was far more restricted.

Martin had moved from the centre of attention of a loving family to being just one of 1200 girls, all of whom had been selected for their intelligence and academic ability. Martin was bright, but academic work bored her, the lack of freedom frustrated her, and she was constantly homesick and desperately miserable. As the due date for her first mid-term paper loomed, she begged her mother to come to see her and to bring her beau Ben Hagman. Her mother came with Ben and arranged a three day pass from the school. Somehow, Ben and Martin convinced her to drive them over the state line to Hopkinsville, Kentucky where they were married at the Episcopal Church. Martin was sixteen and her new husband was twenty-one.

**Marriage, Motherhood and a Dancing School**

Martin initially returned to Ward-Belmont but once the school authorities discovered her marriage she was expelled. She returned to Weatherford to set up house and gave

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60 Ward-Belmont was established in 1913 by the merging of Ward’s Seminary for Young Ladies and Belmont College for Young Women and was the first junior college in the Southern United States to receive full accreditation by the Southern Association of Colleges and Secondary Schools.

61 The fee schedule for 1930 was not minor, Martin’s family paid $1250/annum, the equivalent of $17,000 according to the US Department of Labour CPI Inflation Calculator (accessed 19 May 2012).

62 The topic of the paper was “Flower Decoration in the Genteel Home.”
birth to her first child, Larry Hagman, in September 1931. It was not, however, the life that she had imagined for herself:

It was all role playing. I felt that Larry was my little brother, Ben my big brother. Role playing was something I had known since I was born, but it wasn’t a good basis for a marriage (39).

In later years her son agreed, saying that the only role “that ever gave my mother trouble was the one that concerned me, motherhood. She tried her best” (Hagman 2001, 20). It was the Depression and, although Martin’s parents had given them a house, car and furniture when they married, the couple found it hard to meet the daily bills on his wage as an accountant. Ben began to study law and the family moved back in with Martin’s parents. This left Martin in a vacuum. Her mother took over the care of Larry and Martin had nothing to fill her time. Martin’s sister, also a new mother, noticed Martin’s discontent at being directionless. It was a problem beginning to be recognised amongst contemporary social commentary. Margaret Kornitzer wrote that:

there is a pressing problem, in these days of meager domesticity, of giving her an occupation to keep her out of mischief and provide for her problematical future…Yet there is not enough work for the middle-class girl at home, and idleness is a worse evil still (Kornitzer 1932, 79).

Geraldine’s solution was for her sister to take up dance teaching, although she had never had a dance lesson in her life. Martin opened her first dancing school in her Uncle’s grain storage loft and drove to Fort Worth to learn routines to teach to her students. Within a month she had thirty pupils, and was giving lessons every day while taking lessons herself every night. After the first school teaching season Martin realized that she needed to learn a lot more in order take her increasing number of students through a second year of instruction, and she searched out a school for dancing teachers; Fanchon and Marco School of the Theatre in Hollywood, California caught her eye:

[it] sounded divine…The list of courses made my head spin and my feet tingle: Standard and Ultra-Modern Tap, Acrobatics, Ballet, Toe, Spanish, Character, Adagio, Baby Work, and Production Routines. As if that weren’t enough, also Costuming, Staging, Lighting, Production Effects, and

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63 Martin charged $2 per month for two lessons per week in a group class and $4 for private lessons.
Martin’s father agreed to advance her money for the trip and for tuition.

Martin studied eight hours a day during that first summer at the Fanchon and Marco School, practicing as much as she could in between classes. She returned to Weatherford to discover that her parents had built a dance studio for her as a surprise:

It was a jewel of a red-brick building which looked like a one-story home…had a wood-panelled reception room, a stone floor, a fireplace. French doors opened onto a panelled studio with windows on three sides. Mother, who had designed it all, found an antique mirror from some old saloon in Fort Worth and it covered one entire wall. There were ballet barres, a dressing room with bath and showers for students. There were rumbling mats, medicine balls, a piano, even — wonder of wonder — a Victrola just for the school. (Martin 1977, 47)

**Martin the Singer**

Give me four people and I’m on. Give me four hundred and I’m a hundred times more on…Sometimes I think that I cheated my own family and my closest friends by giving to audiences so much of the love I might have kept for them. But that’s the way I was made; I truly don’t think I could help it (Martin 1977, 25-6)

Martin’s first professional vocal engagement—singing in the lobby of the Crazy Water Hotel in Mineral Wells, a resort town 20 miles from Weatherford—occurred in 1933. When she was planning to open her dance school in Mineral Wells, Martin had difficulty finding a suitable space to hold dance classes, so she made a deal with the hotel manager and the president of the Crazy Water Crystals Company. In exchange for the use of the rooftop ballroom for her classes, she would sing with the hotel orchestra at noon every Wednesday and Saturday. The shows were broadcast locally advertising Crazy Water Crystals, and Martin, known as “The Crazy Girl”, developed a local following (Martin 1977, 48).

Martin sang everything, from hillbilly yodels with the Light Crust Doughboys to “Stormy Weather” with Jack Amlong and his band. Most importantly, in contrast with her classical vocal training, Amlong taught Martin to use a microphone, and his pianist,

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64 The Light Crust Doughboys sang in a broadcast similar to the Crazy Crystal broadcast advertising Burrus Mill’s Light Crust Flour in Fort Worth.
Frank, taught her how to “phrase blues songs” (Martin, 1977, 48). These skills had a major impact on the development of her personal style and were still part of her vocal arsenal forty years later.

By 1934, she had dance schools in Weatherford, Mineral Wells and Cisco with a total of 300 students. As the Depression deepened, unemployment spiralled out of control and farmers were using horses to pull their fuel-less automobiles, yet Martin continued driving hundreds of miles between the three towns during the teaching period and travelling to Los Angeles between terms to continue her studies at the Fanchon and Marco School. Martin’s husband was also busy with his law studies and, although they were still living with Martin’s parents, the couple did very little together. Mary wanted to move into their own home again, but the thought of losing Larry made her mother physically ill and Ben thought that Larry should stay with his mother-in-law.

The catalyst for change came when theatre entrepreneur Billy Rose came to Fort Worth and was auditioning local talent for a chorus. By this time, Martin had formed a dance troupe called the Martinettes and she was determined that they would perform for Billy Rose. New costumes were made, Martin dressed in top hat and tails, and they auditioned:

Our number was announced: I belted out, “Evening, ladies of the Evening, I can hear you calling me…”. The girls made formations with cigarette holders, hats, gloved arms. I flew around like a Mexican jumping bean doing “wings”, taps with the cane, standing toe taps. I wound up with a nip-up and a whirling dervish finale (Martin 1977, 55).

After the dance, Martin sang a blues number “Gloomy Sunday”. A few days later, she received a call asking her to come to Fort Worth. Billy Rose was impressed by their performance and wanted to hire the Martinettes, not Martin. Martin said later that she would never stop feeling grateful to Rose for his next remark:

Young lady…I’ve found out all about you. You’re a dancing teacher in some place called Weatherford. You are married, have a little boy, a good family, a respected father who has given you every advantage. My advice to you is to tend to them. Tend to the family, the diapers. Stay out of show business. (Martin 1977, 55-6)
Although devastated, Rose’s advice crystallised her desire to go into show business. She approached her father and told him her dreams. He asked her whether she could ever forget about entertainment or stop teaching. When she said no, he asked her to wait a year before making a decision about her marriage, but agreed she should follow her dream. Ben kissed her “so long, not goodbye” and, leaving Larry with her mother and her husband to his studies, she left for Hollywood in 1935 chaperoned by her friend Mildred Woods. While Mary’s father obtained a divorce by proxy for her a year later, she and Ben Hagman remained good friends.

Martin spent two years unsuccessfully auditioning as a singer, dancer and actress and became known as “Audition Mary”:

I auditioned for everything, day and night. Sometimes I truly did ten auditions a day. If I heard somebody wanted a blues singer, I’d rush off. If they wanted a soprano, off I’d go…Nothing went right. When I auditioned for dancing I was sure I should be a singer. When I auditioned for singing, I thought dancing was my real talent. If I sang blues, the auditioners really wanted a soprano. If I sang soprano…well, you get the idea. (60)

A variety of small jobs added to Martin’s experience: the “Singer of a Thousand Love Songs” for five minutes every evening on NBC without pay; dubbing songs for Margaret Sullavan and Gypsy Rose Lee; singing operetta for elderly ladies at afternoon tea time; and bar songs at night in the Cinegrille Bar at the Roosevelt Hotel. It was in the Cinegrille Bar that Martin first experienced counterpoint singing with pianists Charlie Bourne and Bill Hoffman, a technique she and Ethel Merman successfully utilised twenty years later in the 1953 Ford Special. It is probable that it was with Charlie Bourne and Bill Hoffman that Martin developed the swing/classical crossover technique, which was to catapult her to stardom singing “Il Bacio”:

I had learned to sing it purely, beautifully, in a very high soprano. But always in the middle of it, because it was so grand, I got the giggles. Partly to hide the giggles, partly because it was fun, I began to change it into a jazzed-up, syncopated version, a little bit of the Charlie Bourne-Billy

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65 Most respectable women were chaperoned at the time. Merman and Morgan both had chaperones, as did others such as Gertrude Lawrence. They provided companionship as well as helping with everyday activities such as cleaning.

66 The two pianists would play two different songs at the same time while Martin sang one of the songs. Martin would then introduce a third song.
Hoffman-Mary Martin treatment. Later it became a fad to swing the classics, which did some of the classics a lot of good. I like to think that maybe I helped lead the way with my swinging ‘The Kiss’ (Martin 1977, 67).

Martin considered “Il Bacio” to be the song that signalled the beginning of her successful career. She sang it at the Trocadero Club on Sunset Boulevard one Sunday evening after countless Hollywood auditions. Martin had started by singing the comic song “The Weekend of a Private Secretary” before launching into “Il Bacio”. The audience stayed silent the whole way through, even when she had started to “swing the be-daylights out of it” (67) and when she finished the number, and the audience began to stand up, Martin thought that everyone was leaving.

Then it started: shouting, whistling, calls of bravo, people standing on chairs, on tables. In all that madhouse of noise and yelling, I knew I had made it. In ten minutes my life had changed (68).

Soon after that performance, Martin signed a two-year contract with New York producer Lawrence Schwab to star in his new musical comedy Ring Out The News. Unfortunately, the show was cancelled before she left for New York, but Martin’s inner voice said “let’s go” and she travelled with Mildred to New York on a cattle boat. Soon after arriving, she found herself at the Ritz Towers auditioning for the production team and stars of Leave It to Me. “Il Bacio” was one of four songs that she sang in her audition for Cole Porter and it was interpolated into the first half of Leave It to Me. The song stopped the show in both New Haven and Boston. According to Martin, neither the star of the show (Tamara Drasin) nor anyone else was happy with this occurrence, and the song was dropped before Leave It to Me opened in New York on 9 November 1938. Martin was an overnight sensation, and the show ran for almost 300 performances.

Mary as Commodity: The “Cheesecake Years” in Hollywood

During the run of Leave It to Me, Martin was offered a contract by Paramount Pictures and returned to Hollywood – this time as a star. Martin made nine movies between

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67The term “cheesecake” was adopted in the early 1930s to describe photographs of sexually attractive young women. Movie studios supplied photographs of their young stars in bathing suits, and other revealing costumes, often in absurd poses. These were widely published.
1939 and 1943 during her “pastel life on the silver screen” (84), making her a familiar figure to a broad national and international audience. The movies were moderately successful, light weight, and entertaining, and Martin was considered “a valuable asset…[p]retty, easy mannered and gifted”. 68 She was paired with some of the most popular male stars of the day: heart-throb tenor Allen Jones in *The Great Victor Herbert* (1939); crooner Bing Crosby 69 in *Rhythm on the River* (1940) and *Birth of the Blues* (1941); comedians Jack Benny and Fred Allen in *Love Thy Neighbour* (1940); leading man Don Ameche in *Kiss the Boys Goodbye* (1940); Fred MacMurray and Robert Preston 70 in *New York Town* (1941); and with Dick Powell 71 and Rudy Vallee in *Happy Go Lucky* (1943).

It was not only her film career that was burgeoning at this time. Martin’s increasing radio presence (see Chapter Five) helped the American public to fall in love with her as a movie star and personality. The Hollywood publicity machine attempted to place Martin in a tidy niche as pinup girl/starlet, and Martin felt she had become interchangeable with any number of fellow Hollywood actresses. As was the habit in 1939-40, the make-up artists made her up to look like the reigning queens of the screen: Claudette Colbert, Jeanne Parker, Rosalind Russell or Jean Arthur (Martin 1977, 86). Hollywood bored Martin. She disliked the way scenes were shot out of sequence, the long days of sitting and waiting for not very much to happen. She felt out of control of her existence, with the days full of people telling her to “Stand here”, “Stand there”, “Don’t move”, “Come speak to the press”, “I need just a moment of your time”. She was surrounded by people who were only there to create her into something that could be sold to the public by Paramount Pictures. She had become a commodity.

**Magazine Covers, Collectables and Paper Dolls**

Martin’s years in Hollywood are reflected in the dazzling array of covers for movie magazines, song albums and television magazines produced during her stay in Hollywood. These covers, seen in Figure 1—2, didn’t precede a story within the

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68 *Philadelphia Record* 16 January, 1941.
69 Crosby was one of Martin’s “dream men.” She later claimed that Crosby “almost made Hollywood worthwhile.”
70 Martin also appeared in a cameo with Robert Preston in the star filled war-time entertainment *Star Spangled Rhythm* (1942) where they sang “Hit the Road to Dreamland” in a railway train dining car. Twenty-five years later Preston and Martin appeared together in the two-person Broadway hit *I Do, I Do*.
71 Robert Powell also starred with Martin in *True to Life* (1943) along with veteran comedian Victor Moore.
Figure 1—2: A collection of magazine covers from Martin’s time in Hollywood. While Mary searched for an image through movies, her girl-next-door ordinariness endeared her to a wide range of fans, men and women alike.

magazine. They were snapshots of a commodity showing only the surface of a starlet, yet revealing nothing of the person behind the portrait. There is, however, a hometown naïveté in all these cover portraits. In all of the poses, one thing is very clear – she is really quite ordinary. This is no siren to be dreamt about after dark, to be pinned up on walls or inside lockers.

Martin’s nine movies provided her with enough success for the Hollywood merchandising machine to supply the twenty-first century with a large range of collectable movie ephemera; including arcade cards, post cards, signed photographs and paper doll books. These cheap and easily available souvenirs, a selection of which can be seen at Figure 1—3 emphasised the new, glamorous aspect of Martin’s public persona, though the movies themselves had not. The ephemera glossed over her naïve country charm and added a sexual dimension that had not been part of her Broadway success, despite stripping down to a teddy on stage every night in Leave It to Me.

Arcade and Lobby cards were dispensed for a penny from machines at movie theatres and local amusement park arcades, perfectly placed for impulse buying. Sets of these cards were collected much the same way as cigarette cards and could be swapped
Figure 1—3: A selection of Arcade Cards, Lobby Cards and Postcards from the author’s collection showing a more sexualised Martin.
between friends. Postcards were issued by Paramount and could be collected unused, or they could be sent through the mail to fellow collectors. These cards and postcards reflect the same starlet quality that is found on the magazine covers), but were cheaper than magazines and able to be kept in a pocket or a purse.

The movie ephemera did not stop at magazine covers and collectable cards, there was another market that could be supplied with Mary Martin—paper dolls. These were two dimensional figures drawn or printed on paper, which could be cut out and adorned in the accompanying, interchangeable paper costumes (Johnson 2005, 1). They were a regular feature in women’s magazines such as *Ladies Home Journal*, *Good Housekeeping*, and *Woman’s Home Companion* and were also published in themed books that could be purchase at variety stores for as little as 10c a piece. Several paper doll books representing Martin were published during the 1940s, extending her ambit to a younger set that might hear her on the radio, but not watch her films or see her on stage.

**A Work/Life Balance and the Return to Broadway**

Another life changing influence to come out of Martin’s Hollywood experience was a new husband, Richard Halliday. Halliday was a story editor at Paramount and their paths would cross at the studio and at parties. Martin thought that Richard was “the most handsome, divine man I had ever seen. He was very tall, thin, with black, black curly hair, [and] impeccable clothes” (Martin 1977, 93). The couple had only met in the company of other friends, but after their first dinner alone together (1940) they decided to marry. They each rang their mothers, then drove to Las Vegas, where they married in the registry office. The next night they drove home where Martin told her young son Larry the news, packed some clothes and moved into Halliday’s house. She was on set again at 6:00am.

As with her previous marriage, Martin had no idea what to expect of her relationship with her husband—it was something that just happened. Halliday, on the other hand, knew what he wanted. He began by buying her an entirely new wardrobe, changing so much about her that she wondered why he had married her if she needed so many alterations (100). One of the greatest concerns for Martin in the early stages of her marriage to Halliday was her lack of knowledge about keeping house, decorating, dressing stylishly and entertaining, which she had not thought about since leaving Ward-Belmont College ten years earlier. Since this time, she had been building her
career, living in hotels and out of suitcases. Halliday was more than happy to help in this regard, and had a gift for art and gracious living (his mother was a well-known interior designer) which set the tone for their entire marriage.

Martin’s discontent in Hollywood resulted in the Hallidays returning to New York. Martin still had six movies to complete on her contract—movies that were never made. As soon as they arrived in New York in late 1942, Halliday began the transformation of his wife from a Texan tomboy into a delicate feminine creature. When Martin was given the choice between two different shows, Dancing in the Streets and Away We Go, Halliday made the decision based on the experience of the writers and the costumes planned for each production. Dancing in the Streets was written by a strong and well established creative team and Martin would wear a wide range of elegant gowns throughout the show. However, Away We Go was the first project of the newly established team of Richard Rodgers and Oscar Hammerstein II and all Martin would wear throughout the show was a simple, gingham dress. Dancing in the Streets was chosen but closed before it reached New York. Away We Go changed its name to Oklahoma! and made musical theatre history. Despite this, Martin never regretted the decision, as it meant that she was available for Kurt Weill’s One Touch of Venus, her first starring role on Broadway.

Martin treated One Touch of Venus in the same way as all her previous experiences, as an opportunity to learn and develop her craft, and it was to prove a smorgasbord of opportunity. Weill’s conviction—that a “composer cannot content himself with the creation of music, but assists in the construction of every scene” to fruition (Weill 1936, 64)—made him the driving force behind all aspects of One Touch of Venus. Martin was one of the few cast members seemingly untouched by Weill’s central control of the show, and he never demanded that she do a song any particular way (Davis 2008, 77), leaving her to develop her own style. This in itself gives an indication of Martin’s reputation at the time, as none of the songs were written specifically for her voice. Martin happily turned to others on the production team and the cast for help.

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72 Rodgers long standing partner Lorenz Hart had dismissed Away We Go because he was not interested in the characters or the prairie setting, and he encourage Rodgers to find another lyricist (Hirschak 2007, 201).

73 Weill had written the songs for Marlene Dietrich, who was initially expected to play the role of Venus.
Shut out by Weill’s central control, the director Elia Kazan⁷⁴ focused his attention on Martin. He found an actress untutored in the construction of a stage persona, but eager to learn. Once he became aware that Martin thought of characterization in terms of movement and how she should walk, Kazan told her that movements must be *legato*, slow and graceful, and a complete contrast to the rush of the modern world—“[s]he must seem to move to a rhythm from another galaxy and think of the role as a dancer; in short, she had to walk like a goddess” (Martin 1977, 113). Most importantly, Kazan facilitated Martin’s development of an acting style that was “less mannered, less artificial than she’d been as a beguiling, adorable soubrette [and] able to make an audience believe anything” (Davis 2008, 77).

Martin had always taken advice and direction from anyone willing to offer. In *One Touch of Venus*, she began to learn secret “tricks-of-the-trade” that would inform her performances for years to come. From dancer Sono Osato she learned that:

> You can make yourself an inch taller by the way you stand, the way you think…Keep your head up; think tall from your solar plexus up. Never relax. Stand straight, think tall. In the audience they’ll think you’re the tallest person they ever saw (Sono Osato, quoted in Martin 1977, 114)

Also, to always rehearse in costume, or at least in the shoes that she would wear on stage, so that her movements became second nature. Couturier Mainbocher taught her to identify her own style, and to choose gowns that best revealed her own personality within her stage characters. The lessons she learned in *One Touch of Venus* that enabled Martin to truly develop from the “that skinny thing with a Texas accent” into an actress who could “play an emotional scene touchingly and a comedy scene with guile and humour… grace and lightness and style.”⁷⁵

During the run of *One Touch of Venus*, the couple decided that Halliday would discontinue his career in Hollywood and become Martin’s personal manager as well as the family decision maker. They decided that their daughter Heller⁷⁶ would travel with them wherever they went, so that the family could stay together. Magazines regularly

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⁷⁴ Kazan’s film and stage direction after *One Touch of Venus* included *A Tree Grows in Brooklyn*, *Gentleman’s Agreement*, *A Street Car Named Desire*, *Death of a Salesman* and *On the Water Front*, *East of Eden*, *Splendour in the Grass*, and *America America* to name but a few.


⁷⁶ Heller was born during Martin’s stay in Hollywood.
commented on the control that Richard Halliday maintained over all aspects of his wife’s life. He allowed her a small allowance of $25 from her $5,000/week salary and invested the rest. He drove her from hotel to theatre and back, limited her social life to between acts at the theatre, and carefully controlled what she ate and drank. In their December feature on Martin, *Life* seemed unclear about Halliday’s actual role, identifying him as an interior designer, and ignoring his wide production experience prior to his marriage to Martin.

The daily rhythm of Martin’s life for the next twenty years was established. She rarely had anytime between shows, finishing one and then moving straight into rehearsals for the next. She slept until early afternoon and then attended to any interviews or appointments. An early dinner with the children, and then travel to the theatre, leaving her plenty of time to prepare for that evening’s performance:

> He got up early to take care of all the complex details of our career, correspondence, home, financial affairs. He surrounded me with protection and silence while I slept to be ready for the next performance. Then he took me to the theatre, did more office work in our New York apartment while I performed, saw me safely home again (Martin 1977, 293).

Although this allowed Martin complete freedom to follow her career, it also placed her in a position of dependence that may seem strange to twenty-first-century sensibilities. Halliday drove Martin to the theatre, carried her money and arranged her meals. He gave her space from the public by screening everyone who wanted to see or talk to her. He paid their bills, organized their house, negotiated contracts, and made demands when demands needed to be made. Halliday was also a high functioning alcoholic and speed addict. Over the years, these traits made him very unpopular with many people, including Martin’s son Larry Hagman, whose relationship with his mother was affected badly by what seemed to be a mutual dislike. Hagman explained in his autobiography:

> Somehow, despite my frustration, I came to see Richard as simply a goddamned necessary evil. Mother most likely wouldn’t have had such a brilliant career without Richard in her life. He and I would never get along, and it prevented Mother and me from having a real relationship until he died.

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77 He ensured that her diet was “painfully nutritious” including raw eggs in an attempt to increase her weight from 105 pounds (47.6kgs). *Life*, 27 December 1943.

78 Later chapters discuss some of those instances through her career.
Whatever stresses there may have been between Halliday and Martin; they did not affect her public persona. Their marriage worked because they had complete confidence in, and respect for, each other, and because all decisions were discussed between the two of them. If Martin felt strongly about something he would go with it—everything was centred on her as a performer (Davis 2008, 69-70).

In the years following *One Touch of Venus*, Martin was completely consumed by her career—the story of her life became the story of work and the two were inseparable. For this reason, Martin’s life from 1942 until 1955 will be explored in conjunction with her work and will be examined in the later chapters of this dissertation: *Lute Song* (1946), *Pacific 1860* (1946), the national tour of *Annie Get Your Gun* (1947), and *South Pacific* (1940) in Chapter Seven; and key television roles in Chapter 8.

**American Everywoman**

After the success of *Annie Get Your Gun* and *South Pacific*, Martin appeared more often in magazines produced primarily for women, and it was here that her influence was most profound. Women’s magazines, particularly *Seven Sisters*, were aimed at homemakers with husbands and children, rather than single or working women. Such publications had a significant influence.79 The leading magazines had literally millions of subscribers and reached millions more, as issues were shared between family members and friends (Walker 1998, 2). Through these magazines, the rich and famous became “friends” to the everyday housewife. Their advice and attitudes appeared in the magazines and their behaviour, dress, diet, homes and the shampoo they used were common knowledge across America.80 Through these periodicals, Martin cemented her place across the three ideals of American womanhood: the girl next door, the American everywoman, and the all-American icon.

Women’s magazines concentrated on domestic subjects that were of interest to their predominantly white, middle class readers. Each edition included features on a variety of topics, including issues of wide national and cultural significance and fiction (short

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79 See also *Redbook, Ladies' Home Journal, Good Housekeeping, McCall’s, Family Circle, Woman's Day and Better Homes and Gardens*.
80 For instance Eleanor Roosevelt provided a articles and columns in many magazines, including in The Ladies Home Journal, The Woman’s Home Companion and Woman’s Day over a period of more than forty years.
stories, and serialized or condensed novels). Regular sections also included articles on
food and cooking, cleaning, home decoration, budgeting, health and beauty, child-
rearing and help for love and marriage (Walker 1998, 2). Features on topics such as
advances in medical science, the effects of television, political dialogues, the
American education system, as well as the lives of the rich and famous “involved their
readers in the culture as a whole, implicitly—and often explicitly—drawing connections
between the home and the nation, the domestic and the global” (Walker 2000, xii).

Women’s magazines had divergent origins, and their readership base had developed
over long periods, some since the previous century. Women grew up with these
magazines as a ubiquitous presence in their homes. Read by mothers, daughters and
grandmothers, the influence of such publications could be found in the way women
behaved, the food that was put on the table, the clothes that were worn, the goods that
were purchased, how children were brought up, and their political views. Magazines
established a common ground in the development of domestic life across generations.
Attitudes and beliefs may change, but the magazine itself becomes a shared experience.

The life styles displayed by magazines were idealised and full of contradictions: articles
encouraging domestic activities were placed alongside those on making a career.
Martin’s image in these magazines reflected this duality. She was seen as effortlessly
elegant, but at the same time down-to-earth enough to want to save money by giving
herself home permanents during South Pacific. In these magazines, Martin’s life was
consistently depicted as what women wished their lives could be: famous and shrewd

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81 For instance, in 1955 McCall’s published an article on breast cancer, written by Dr Emerson Day, Chief
of the Department of Preventive Medicine of the Memorial Center for Cancer and Allied Diseases in New
York City, designed to encourage women to visit their doctors by combating the fear of the unknown
surrounding the disease.
82 Family Circle and Woman’s Day were both originally conceived as circulars for national grocery
stores. Family Circle for Piggly Wiggly, the first self-service grocery store in the USA, and Woman’s
Day for The Great Atlantic & Pacific Tea Company, which was (until the mid-1960s) the largest grocery
retailer in the USA. McCall’s was initially a vehicle for the publication of sewing patterns and Good
Housekeeping was aimed at more affluent housewives and included a focus on healthy eating. Both
McCall’s and Good Housekeeping also included high quality fiction from authors such as Zane Grey,
Somerset Maugham, Virginia Woolf and Evelyn Waugh. The Ladies’ Home Journal was originally a
single-page supplement to a general interest magazine, while Better Homes and Gardens emerged from a
blending of a woman’s issues magazine and a home design journal.
83 Martin entered the New York Dress Institute’s Best Dressed Women’s list in 1949 along with the
Duchess of Windsor and the Duchess of Kent.
84 Hair had been curled (and straightened) using chemicals since the nineteenth century. By the 1940s,
permanent waves had become so popular that companies began releasing compounds that could be used
in the home. Photo spreads in magazines such as Woman’s Home Companion (September 1949) showed
Martin going through the entire process.
(in a non-threatening way), with talented children and a husband who takes care of all
the difficult things in life, while she does needlework in between scenes at the theatre.
In May 1960, Good Housekeeping called it “Mary Martin’s Other Talent” and offered
their reader’s the chance to purchase already embroidered designs “inspired by Mary
Martin’s own needlework” for them to fill in the background themselves.85

It was not only the entertainment and women’s magazines that brought Martin to the
attention of the world. Life was a weekly pictorial news magazine with national
circulation. First launched in 1936 with just 380,000 copies, its circulation reached one
million copies only four months later. Life was printed on heavy duty, coated paper
with fifty pages of captioned photographs and sold for only a dime. It covered politics,
finance, fashion and the lives of ordinary American people, as well as the influential and
famous. To read Life was to be informed about issues prevalent across the country and
(potentially) across the world. The magazine was in a position to inform a wide cross-
section of the US populace and influence their opinions. Life covers are a snap shot of
the popular highlight of that week in American history, and to be on the front cover was
to be seen across all of America. In addition to articles, interviews and reviews, Martin
appeared on the cover of Life five times over the course of thirty years.86 The
photographs on those covers show Mary Martin’s transitioning image from sexy starlet
to everyday wife and mother (see Appendix D page 391).

Martin’s flexible vocal technique was brought to widespread public attention through
her prominent appearance in the mass media of the period—magazines, film and
radio—and established her influence as a role-model of vocal style. This biographical
chapter demonstrates that there were particular personal and social factors that provided
a skill set which enabled Martin to freely adapt her vocal technique to accommodate the
changing demands imposed by technological advancements occurring at the time—
strong personal drive and self-motivation, mimic ability, and the absolute support of her
family freeing her to concentrate solely on self-development. The way Martin
developed these skills to create an integrated vocal style will be unpacked in the main
body of this dissertation.

85 Martin later published a book of her needlework, which included personal anecdotes surrounding the
designs.
86 Six, if the cover originally planned for 13 January 1967 had not been replaced by U.S. Navy Patrols
travelling up the Vietnam Mekong River Delta.
Entertainment was a local phenomenon in Mary Martin’s early childhood—the beginning of the communication revolution—and when it was not performed live, it was recorded acoustically. Chapter Two discusses three primary forms of American musical theatre popular at this time, and examines the three dominant female vocal and character types employed by women on the stage. The discussion then turns to the technological changes that were to have a profound influence on Martin through her adolescence and early adulthood.
CHAPTER TWO: THE BIRTH OF MUSICAL THEATRE AND THE DEVELOPMENT OF RECORDING AND BROADCAST TECHNOLOGY

A clear understanding of the prevailing vocal styles prior to the development of electronic recording and the widespread growth of broadcasting is essential to the assessment of the changing manner of female vocalisation. This chapter establishes the benchmark characteristics of female vocal technique prior to the technological advancements that forced the transformation of performance styles in American musical theatre. Furthermore, it identifies those advancements and their initial effects on the popular singing techniques that Martin was to incorporate into her integrated vocal style.

This first part of this chapter examines three forms of musical theatre that appealed to the broadest range of American society—operetta, the revue and the musical play—genres in which the origins of the modern female vocal style first become apparent. The acoustic signatures of the primary female performance styles are identified in contemporaneous acoustic recordings made by popular performers of the time—Lillian Russell, Anna Wheaton, May Irwin and Stella Mayhew. The focus of the chapter then turns to the technological progress of acoustic and electronic recording, including the spread of broadcast and playback technology in the first three decades of the century. The chapter concludes with an examination of the development of two new vocal styles—the torch song and the croon.

Both during and before the twentieth century, musical theatre operated along a continuum. At one extreme were shows intended as pure entertainment, designed to be humorous and offer a sense of escapism. Such productions aimed to please and nothing more, and their music formed either a diversion or an accompaniment to the entertainment on stage. At the other end of the continuum were productions that sought to “enrich the audience by producing lofty emotions” (Bernstein, 1968, 152). These had a story to tell and the music was an integral part of their narrative, propelling the action in the form of a song, dance or instrumental commentary. Between these two extremes every type of stage and screen musical theatre production could be found: burlesque, minstrel and variety shows, revues, musical plays, operetta, opera buffa, opera comique, grand opera and even Wagnerian music drama. At the dawn of the twentieth century, all of these forms appeared in America’s theatres, and the vocal talents of its female
stars were as diverse as the genres in which they performed.

Operetta

It is the basically entertaining nature of operetta to promote good feeling and even joy, leaving the darker, weightier aspects of theatrical presentation to dramas, melodrama, and grand operas. Sentiment and romance have traditionally played important roles in operetta, but rarely despair (Traubner, 2003, x).

Early Development

In November 1878, the phenomenon of *HMS Pinafore* entered the United States of America, beginning a change in American musical theatre that continued throughout the new century. The first (unauthorised) performance of Gilbert and Sullivan’s comic operetta took place in Boston, and new productions rapidly followed across the country. It reached San Francisco by December 1878, and multiple productions were staged in Philadelphia and New York by mid-January 1879. There were an astonishing array of performances crossing as many social boundaries as could be imagined in nineteenth-century America: an all-black *Pinafore*, a transvestite production, performances by a company of children, along with German, Yiddish and other foreign-language versions.87

*HMS Pinafore* whetted a popular taste for comic operettas in the United States—further fed by the works of John Sousa and Willard Spenser—and influenced the form and content of the future American musical in three very fundamental respects. The first of these was the romantic plot formula of boy meets girl, boy loses girl, boy gets girl back. Although appearing in a myriad of forms and variations, this prescription was the almost universal plot of all American musicals until the 1960s. Secondly, *HMS Pinafore*’s biting satire of British life and its class system demonstrated that a musical could consider significant social issues and still be entertaining (Jones, 2003, 9).

Thirdly, *HMS Pinafore* introduced the concept that the book,88 lyrics and music were integral in combining to form a greater whole. While this integrated approach did not become commonplace in the American musical for another forty years, the extravagant success of the operettas of Gilbert and Sullivan supplied the initial impetus (Jones 2003, 10).

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87 *Pinafore* products abounded: there were photographs of costumed performers available at theatres, a *Pinafore* card game, Little Buttercup dolls, and glassware depicting the characters from the operetta. Characters’ catchphrases entered the vernacular, and even dresses depicting scenes from the operetta appeared in shops and magazines (Jones J. B., 2003, 7-8).

88 See the Glossary of Terms on page 278.
The Glory Days

Operetta thrived throughout the first quarter of the twentieth century. A long line of compositions by composers such as Victor Herbert (Red Mill, Naughty Marietta), Rudolf Friml (The Vagabond King, Rose Marie, and The Firefly) and Sigmund Romberg (The Student Prince, The Desert Song) were popular on Broadway well into the 1920s. Though unpretentious in nature, operettas were exotic in flavour and remote from audiences’ experiences—they were often set in a foreign country with a handsome prince and a fairy princess, enchanters and enchantments. The characters were romantic, unfamiliar and sometimes improbable; the music was lush, with full orchestras and rich, powerful voices. That they were performed in English made operetta more accessible, although the language was elegant and overly stylized. Reliance on the box office for financial viability ensured the producers created the type of production demanded by the theatre-going public.

Sigmund Romberg likened the book of the operetta to “a plum pudding”—its formula for success mixed a variety of different ingredients and bound them together with music (Romberg 1928, 27). Romberg’s recipe divided the play into acts and each act marked a division of time, such as an hour, a day, or a year. Within that structure, there were to be eighteen to twenty-four vocal numbers in a mixture of solos, duets, trios/quartets and choruses, with no two songs of the same kind occurring in succession. Voice types included a prima donna and a tenor, who each had a solo love-song and combined for a duet. The baritone was either a menacing or comedic character—in which case “he should have something funny to sing in each act” (Romberg, 1928, 72). An ingénue or soubrette—for whom Romberg had no specific song suggestion—rounded out the cast. In a similar manner to grand opera, each of these characters maintained a particular vocal style: a mature dramatic soprano for the prima donna and a lighter, lyric soprano/mezzo soprano for the ingénue. It was the lyric soprano timbre that formed the basis of the legitimate voice of the heroine in American musicals.

The Traditional Legitimate Voice

The term legitimate came into use in the 1920s to differentiate classical vocal music from jazz and popular styles. Commonly abbreviated to legit, the term differentiates the
The operettic method employed on the Broadway stage during American musical theatre’s “golden age”, from the belt technique that became commonplace in musical theatre in the later twentieth century. The dramatic soprano voice employed in opera and operetta slowly gave way to a lighter, lyric soprano utilising both a lower range and very high notes in spectacular displays of virtuosity. One of the important aspects of the legitimate voice is the vocalist’s ability to be heard over the orchestra, and classical vocal training was essential for voice audibility.

Through heroines of the operetta such as Lillian Russell (1860-1922), the traditional legitimate voice of the early twentieth-century was firmly rooted in the classical tradition. A noted beauty who moved naturally between the operettic and variety stages, Russell made her debut in *HMS Pinafore* in 1879. She appeared in America, Britain and Europe for the next 40 years, and died at sixty-one of injuries sustained on board ship while returning from Europe.90

Recorded in her early fifties, the one extant audio example of Russell’s voice is “Come Down, Ma Evenin’ Star”, which became popular in the latter part of her career. This song has a narrower range than those evident in her comic opera roles of the late nineteenth-century. While the voice is still in good condition, the slight unevenness of her vibrato seen at Figure 2—2 may indicate some deterioration in her vocal control.

![Image](image.jpg)

**Figure 2—1: Lillian Russell on the cover of *The Theatre*, October 1908.**

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90 See Glossary of Terms, p. 280.

90 Russell was appointed by President Harding as a special investigator into immigration and toured Europe as part of her investigation. She sustained minor injuries on board ship leading to “a complication of diseases,” which ended in her death early on 6 June 1922 after ten days of illness.
Figure 2—2: Lillian Russell’s vibrato on the sustained “e” of “Evenin’” in “Come Down, Ma’ Evenin’ Star” shows an uneven and increasing extent, which may indicate declining voice control. See also CD Track 2—1.

Spectrogram 2—1\(^{91}\) shows a line sung in flawless legato style. It displays impeccable pitch, and a powerful, resonant fundamental supported by strong resonances in the range of the singer’s formant. Notwithstanding the age of the recording and the condition of the cylinder, Russell’s diction is clear and intelligible throughout, and would have carried well in a live performance.

Although Russell’s singing style is characteristic of the conventional legitimate soprano, she was older than many ingénue heroines on the stage at the time and displayed greater vocal weight than her later counterparts. She enjoyed ongoing, worldwide popularity until her untimely death. The voice that found its way into the realm of the musical play was similar but slightly lighter than Russell’s—possessing a bright timbre and agility that best represented the energetic young American characters to whom the legitimate soprano voice type is now generally assigned.

The Musical Play: The Princess Musicals

They [the Princess musicals] constituted the first conscious, serial experiment in integrating score and script into character stories on a scale small enough not only to define character but to stay with it (Mordden 1983, 72).

In 1912, the Princess Theatre was built at 104 West 39\(^{th}\) Street in New York. Containing

\(^{91}\) All spectrograms appear in Appendix A from page 319.
only 299 seats, this diminutive auditorium altered the path of musical comedy in America. It opened with a program of one-act plays, but these were not popular enough to be financially viable, and by 1915, management was having difficulty finding profitable shows appropriate to the theatre’s capacity. After theatrical agent Bessie Marbury suggested to the venue’s owner, “everyone is reforming the drama…now is the time for someone to do the same thing for musical comedy” (Flinn 1997, 140), Jerome Kern and Guy Bolton were hired to transform the genre.

Kern and Bolton (who had been working separately in England and New York) were both particularly interested in the integration of the music and book within the musical play; the small size of the Princess Theatre and the limited resources of the producer provided the opportunity. The book had to be interesting and well written to hold the audience’s attention, and the songs of a high quality and relevant to the characters and the story. The lyrics were an extension of the book itself, and just as important as the quality of the music.

Kern and Bolton’s first two productions at the Princess were great successes: Nobody Home was so popular that it had to be moved to a larger theatre and Very Good, Eddie ran for 341 performances. In both works the score supported the book, the songs grew out of the drama and traditional musical comedy jokes were replaced with humour based on the characters and their situations. Kern and Bolton were joined shortly afterwards by P. G. Wodehouse, and the first of a series of successful, influential composer/book/lyric collaborations began. A New York critic was inspired to versify:

This is the trio of musical fame,

Bolton and Wodehouse and Kern:

Better than anyone else you can name,

Bolton and Wodehouse and Kern,

Nobody knows what on earth they’ve been bitten by:

All I can say is I mean to get lit an’ buy

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92 In 1904 at the age of nineteen, Kern was contracted in London by Charles Frohman to provide songs for interpolation into British versions of Broadway musicals; Bolton started writing for the theatre in 1910 and collaborated with Kern in 1914.

93 For a pre-1920s production, this was a very long run.
Orchestra seats for the next one that’s written by
Bolton and Wodehouse and Kern.

Quoted in (Wodehouse 1954, 90)

Even hard-to-please critics such as Dorothy Parker were impressed with how the action in the Princess musicals moved casually into a song that was relevant to the plot. Richard Rodgers—whose music for Oklahoma! epitomised the American musical—attended many of the Princess musicals. Rogers described the inspirational effect Kern’s musicals had on his development as a composer:

[I]t was the Kern score that captivated me and made me a Kern worshipper…the sound of a Jerome Kern tune was not ragtime; nor did it have any of the Middle European inflections of Victor Herbert. It was all his own – the first truly American theatre music – and it pointed the way I wanted to be led…Actually, I was watching and listening to the beginning of a new form of musical theatre in this country. Somehow I knew it and wanted desperately to be a part of it (Rodgers 1975, 20).

The genesis of the contemporary soprano—Anna Wheaton
The intimate size of New York’s Princess Theatre—more akin to the size of the British theatres in the West End of London—meant that larger, heavier soprano voices were too overwhelming, and the lighter, lyric soprano began to be used more frequently. Oh Boy! was the fourth of the Princess Theatre plays, and was even more successful than Very Good, Eddie. It starred Gilbert and Sullivan veteran Anna Wheaton (1896-1961) as the complicating love interest. Wheaton had a light, bright lyric soprano voice, and she sang in a natural, conversational manner with strong classical leanings. Some of the stylistic features of her voice can be seen in Spectrogram 2—2 and transcribed at Figure 2—3; her even vibrato across all notes, including those of short duration are most notable.

The opening words are fast and carefully separated, with the legato line of the classical soprano abandoned, and the clarity of short, crisp lyrics increased as a result. The phrase ends with two sustained tones linked by a well-controlled portamento, and offers

94 Rodgers would often attend the shows more than once: he claims to have seen Very Good, Eddie at least six times (Rodgers 1975, 20)
95 Oh Boy! ran for 463 performances between 1917 and 1918.
a good illustration of the strong first formant resonance and bright upper partials of the legitimate voice. Wheaton also introduces two vocal embellishments in the refrain that are not part of the classical lyrical soprano tradition, but instead adopted from the early belt tradition. These can be seen in the centre of Spectrogram 2—3 and transcribed in Figure 2—4, at “comes”, and the end of the word “patter”. Unlike the embellishments found in the belt tradition however, these slides do not lead from note to note, but give her performance a flirtatious impression, distracting the listener from the more formal classical tones of her vocal technique.

Despite the popularity of the Princess musicals, the integration of music and book was a slow but steady process, and it was some years before Kern would once again be part of a collaboration that altered the course of American musical theatre.

### The Revue

The Revue developed during the early twentieth century, drawing its influences from nineteenth-century spectacles such as *The Black Crook*[^1], vaudeville, burlesque and minstrelsy. The Revue was essentially a variety show with a topical but simple

[^1]: The Black Crook opened in 1866 and is considered to be the first American Musical. It is loosely-based on the Faust legend, and combined the casts and energies of a New York melodrama with the beauty and talents of 100 dancers from a French ballet company. It played for five and a half hours and ran continuously for 16 months. Revived at least 15 times in New York, it toured throughout the United States for the next forty years.
thread—the year, a place, a city, the American Girl—providing a thematic structure without the necessity of storyline. Sketches were interspersed with comedic skits, dancers, acrobats, jugglers, performing animals and a parade of beautiful girls. Revues also introduced the element of topical satire—successful shows were parodied, celebrities mocked, and current scandals uncovered. Ethan Mordden describes a typical Ziegfeld revue as:

…a matched patchwork…The first-act finale, a miniature minstrel show, involved everyone, with [Eddie] Cantor and [Bert] Williams as the end men, a harmony quartet of Eddie Dowling, [John] Steel, [Gus] Van and [Joe] Schenk, and [Marilyn] Millar dancing to Berlin’s ‘Mandy,’ the whole thing situated on a stage-wide stairway and colored in pink, silver, and white… Later in Act II, Dowling as Father Time introduced a Prohibition Number against an envisioning of the Manhattan skyline draped in mourning. Songs, dances and a sketch entitled ‘Saloon of the Future’ commented on the national disaster as bartender Cantor offered his patrons children’s drinks and the showgirls glided in… as lemonade, juice, pop and such. Miller topped it off with tap in Berlin’s ‘A Syncopated Cocktail’ (Mordden 1983, 42).

The Early Development of the Belt Voice—May Irwin and Stella Mayhew

Your coon shouter was a lusty, rounded lady. She was all curves. Her voice was a wild, raucous yell, and perfect intonation was her least concern (Goldberg and Gershwin 1930, 150).

Song lyrics needed to be audible and intelligible, and a new type of singing appeared in mainstream theatres that enabled both occurrences. This was a style situated firmly in the Gilbert and Sullivan patter songs, the consonantal vocalism of black ballad singing and the clarity of the female coon shouters (Grant 2004, 20). It was a method of singing that was closer to talking, and related forms included poetry recitation, the Sprechgesang of Schoenberg and Weill in the German Second Viennese School, and the Jewish cantor tradition. This vocal technique was successful in two important ways—the words were clear enough to understand and it was loud enough to be heard

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97 Coon shouters were in fact white singers who performed black dialect or coon songs, often in blackface. This genre developed from the minstrel shows of the late nineteenth century, and became immensely popular in both Britain and the United States. Coon songs were mostly written by white composers such as Irving Berlin and Oscar Day, and presented racist caricatures of the African-American population.

98 Discussed in Chapter 5.
over accompanying instruments. During the period under examination, it was dubbed ‘belting’, and remains the most commonly used vocal style in popular music today.

Although the best-remembered exponent of early twentieth-century belt style was Al Jolson, the form was predominantly used by women such as May Irwin (1862-1938), Stella Mayhew (1875-1934) and Ethel Levey (1881-1955). The photographs of Irwin and Mayhew in Figure 2—5 show fair, attractive, and demure looking white women who are difficult to differentiate from contemporary stars of operetta. Nonetheless, these women were not the beautiful heroines of the operetta. Their performances were not part of a book or story, and they developed stage personas to suit the sounds of their voices and their song’s message. On stage, they probably would have appeared in black face and depicted the way “black mamas” were expected to act—at least by audiences on Broadway. Women of European descent were still playing Afro-American women on stage when Show Boat was first staged at the end of the 1920s, with Italian actress Tess Gardella playing the role of Queenie. Gardella wore black face in footage from the 1929 silent film of the show, and can be heard singing in the coon shout style during a specially recorded prologue to the film.99

The original belters did not possess the light, quavering voices of the classical style recordings. Listening to them, it is easy to appreciate the origins of the ubiquitous belt style—Stella Mayhew’s voice could easily be mistaken for Ethel Merman. A modern listener hearing May Irwin’s voice in her signature song “The Bully”,100 or Stella

![Figure 2—5: Two original belters from the early twentieth-century. May Irwin circa 1910101 (left) and Stella Mayhew circa102 1901 (right).](image)

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99 See entry for Show Boat in the Filmography.
100 Figure 2—8, CD Track 2—4. This particular example was recorded in 1907.
101 Blum 1952, profile 22.
102 An unattributed photograph from the front page of “I’m Expectin’ a Special Delivery.” Published by
Mayhew singing “De Devilin' Tune”;\(^{103}\) may mistake them for present-day performers. Although it is difficult to imagine lyrics such as these being sung in public in the twenty-first century, the women’s voices are clear, loud, and perfectly intelligible; they are not what might be expected from an early twentieth-century theatre recording. It is instead the orchestral timbre that alerts the listener to its origin, which would be difficult to reproduce without using instruments and recording equipment from the early 1900s.

**May Irwin**

A star of vaudeville from 1875, May Irwin was a buxom, blonde haired, blue-eyed comedienne. She was renowned for her rollicking performance of coon songs, which were frequently interpolated into her plays. Irwin’s many hits on record and through sheet music sales included “After the Ball”, George M. Cohan’s “Hot Tamale Alley”, “The Frog Song” and “Mat-tri-mony”. She enjoyed performing coon songs, and found it “no effort at all [to] pour out a rollicking negro melody [with] ring and snap”.\(^{104}\) An excerpt from her signature song “The Bully”, from the 1895 comedy-farce The Widow Jones appears at Figure 2—6, and Spectrogram 2—4 supplies a clear illustration of her vocal style. The vocal range of the song falls between A₃ and C₅ (an octave above middle C), with a tessitura in the upper level of the approximate female speech range A₃ to F₄—well suited for strong, loud delivery in Irwin’s modal voice.

Spectrogram 2—4 and Figure 2—7 both demonstrate the relative weakness of the fundamental. The intensity of the sound is evidenced by the high amplitude of the upper partials, including the fifth partial inside the area of the singer’s formant. This is an unmistakable signature of the heavy, brassy belt voice (Sundberg et al. 2012, 48) that allows Irwin to dominate the orchestra with seeming ease, even when singing an octave

\[ j = 108 \]

When I walk this levy round, round, round, round. When I walk this levy round

**Figure 2—6:** The opening phrase of the refrain, “When I walk this levy round” from the 1907 recording of ‘The Bully’ (see also CD Track 2—4).

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\(^{103}\) M. Witmark and Sons. New York. 1901.

\(^{104}\) A 1911 cylinder recording. CD Track 2—5.

lower in the second part of the phrase. Irving’s maintains this same vocal style throughout the recording, using little vibrato.

**Stella Mayhew**

A contemporary of May Irving, Stella Mayhew appeared in vaudeville shows and musical comedies in New York from the early 1900s until the 1930s. Several of her recordings survive, including “Fifty-Seven Ways to Catch a Man” (1910), “I’m Looking for Something to Eat” (1910), “A Songalogue” (1912), and “De Devilin’ Tune” (1911). An excerpt from “De Devilin’ Tune” appears in Figure 2—8. All Mayhew’s recordings exhibit the same type of vocal production as May Irwin, with the fundamental having the lowest amplitude relative to the intensity of the upper partials. Her voice has a bright, hard-edged quality that cuts through the accompaniment. Mayhew eschews legato singing, separating her words and using a hard onset—even for those words

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d = 58
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Figure 2—8: Stella Mayhew singing, from “De Devilin’ Tune’ 1911 (see also Spectrogram 2—5 and CD Track 2—5).
beginning with a vowel, such as ‘air’. The close relationship between speech and Mayhew’s belt technique is evident in the sustained shape of the vowel; the intensity of the upper partials of “air” and “care” alter in the same way as can be seen in spoken diphthongs (Ashby and Maidment 2005, 86). This separation of words increases the intensity, clarity and optimal intelligibility of the lyrics.

Although the singers do not give the impression that they are singing forcefully, a loud belt phonation is obvious in these Irwin and Mayhew recordings. Their voices are bright and brassy with a hard edge, helping to clarify the vowels at the beginning of words and increasing the intelligibility of their diction. They both sing static lines in a generally lower pitch than that of the soubrette sopranos, enabling them to maintain intensity of sound in their chest register. Their recordings show that the preferred range was lower and narrower than that in which belters are expected to sing today (Sullivan 1996 (1985), 16). As there is no evidence of either singer receiving classical training, this is to be expected. In contrast to opera singers, Broadway performers were expected to perform at least eight times per week; singing in a vocal range that could be sustained day after day was essential.

Development and Effects of Recording and Broadcast Technology

Yet…they [vintage recordings] have the grain of history. They seem to belong to a time when music was different, and to offer tantalizing clues to what it was like (Chanan 1995, 6).

The technological developments of the late nineteenth and early twentieth centuries transformed the world. Today—immersed in sound that can be created and manipulated with a finger—it is easy to forget that amplification, reproduction and broadcasting of the human voice over long distances only became possible just over a century ago. At the heart of this study are the recordings of Mary Martin encompassing her career of more than fifty years. These resources are the traces of Martin’s thousands of performances on her journey from a small rural town in Texas, through the establishment of radio broadcasting and the development of the classical Broadway musical, to the genesis of television and into legend.

From the written score and static ephemera, assumptions and generalisations can be made regarding genre, composers’ intentions, performance style, and the tastes of audiences. In contrast, sound recordings are traces enclosed in three dimensional artefacts that have become invaluable objects of material culture, preserving “vital
information about general performing practices of the era as well as document[ing] the
idiosyncrasies of individual performers” (da Costa 2012, xxxii). The phonograph
record was “the first means of musical presentation that [could] be possessed as a thing”
(Adorno 1934, 278). It can be utilised more than a century later as a means to bypass
assumptions made through the passage of time, changes in technology, cultural tastes
and audience expectations.

Recording the Voice

Of all the writer’s [Edison’s] inventions, none has commanded such profound and
earnest attention throughout the civilized world as has the phonograph. This fact he
attributes…to the almost universal applicability of the foundation principle…the
gathering up and retaining of sounds hitherto fugitive, and their reproduction at will.
(Edison 1878, 527)

The first recoverable voice recording was made in 1877 when Thomas Edison wound a
strip of tinfoil around a spinning cylinder and etched the sound of himself speaking the
words “Mary had a little lamb” into the wax below. However, it was not until the
development of the flat-disc gramophone in 1887 and shellac discs105 in 1897 that sound
recordings really became items of general consumption. The music market was already
well established through sales of sheet music, and the first million-seller hit song had
appeared in 1891.106 The age of the record commenced in 1900 with Eldridge
Johnson’s development of a system for the mass duplication of pre-recorded flat discs.

Acoustic recording with the phonograph or gramophone was a relatively simple process
and remained little changed until the mid-1920s. A flaring tube collected vibrations
from the air that excited a sensitive diaphragm, whose vibrations were transferred to a
pliable material via a single embossing point or stylus. The sound could then be
recreated by passing a stylus over the resulting grooves, back through the diaphragm
and out through the horn (Edison 1878, 528).

The original intention of recording was to reproduce sounds “with all their original
characteristics…without the presence…of the original source, and after the lapse of any

105 Wax cylinders and shellac discs existed side by side for many years, but by 1912 disc recordings
overtook the less durable cylinder recordings in the popular market, and Columbia Records discontinued
using cylinders. Edison introduced a disc player 1913, although they continued to produce cylinder
recordings until the company floundered in 1929.
106 “After the Ball Was Over” was composed by Charles K Harris. It became the most successful Tin Pan
Alley song of all time, selling in the region of 5 million copies, and was interpolated into many musicals
and films over the next 60 years including Show Boat.
period of time” (Edison 1878, 530). This was what early audio engineers strived towards in making recordings and creating optimal environments to exclude extraneous sounds. Although the carbon microphone was developed alongside the phonograph—the sound of the voice was compressed and tinny and the microphone itself was noisy—it was used exclusively in telephonic and radio transmission. The most successful recordings during this period documented individuals or small groups of singers and musicians placed at varying intervals from the horn, with the loudest instruments being situated the farthest away.

The sound of an acoustic recording could be very good—as Caruso’s recordings of Leoncavallo’s “Vesti la giubba” can attest[^107]—provided all the performers were in exactly the right position and performed at precisely the right dynamic. Despite this however, acoustic recordings were still not able to capture sounds at high or low frequency. This was particularly true for vocalists, where the best voices for recording purposes were tenors, mezzo-sopranos and popular singers such as belters.

Basic phonograms were available from three main producers—Edison, Columbia and Victor—for between $3.00 and $7.50, and their affordability remained steady through the next three decades.[^108] Electric or acoustic phonographs were manufactured to look like elegant furniture,[^109] and portable machines were taken everywhere, including the trenches of World War I. From the early 1920s, cabinets included space for the household radio, and by 1925 almost every American household boasted a Victrola record player. In 1927 alone, eager American consumers purchased 987,000 phonograph machines and 104 million discs (Hoffmann 2005, 613).

Music in America was no longer confined to the concert halls or theatres of metropolitan centres. It travelled from coast to coast, taking world-class performers to the most isolated communities. The spread of the phonograph brought culture to the masses; ordinary people across the country were encouraged by educators, salesmen and governments to listen to “good”—that is, classical—music. Victor’s motto cried, “[t]he

[^107]: His 1907 recording became the first record to sell a million copies.
[^108]: [http://www.measuringworth.com](http://www.measuringworth.com) calculates that the real price in 2010 would be between $79.40 and $198, however, the real value (taking into consideration relative costs of food, clothes and shelter that an average family would buy) increases to between $185 and $463; a substantial outlay for a family at a time when the average annual household income in the USA was $750. [http://www.bls.gov/opub/uscs/1901.pdf](http://www.bls.gov/opub/uscs/1901.pdf) accessed 21 October 2012
[^109]: This principle was applied to televisions thirty years later.
music you want whenever you want it”. However, the music most people wanted to listen to was popular music, sales of which were ten times that of classical music (Katz 1998, 102).

**Electrical Recording**

In 1925, the Victor Talking Machine Company and Columbia Gramophone Company introduced an electrical recording process into their studios. The Westrex System was a dramatic improvement over acoustic methods. Where previously only frequencies from ~250 Hz to ~2,400 Hz had been accessible, the use of the Westrex System meant that a far wider range of frequencies (~50Hz to ~6,000Hz) could be captured and reproduced. This process added another octave of sound reproduction, while reducing harmonic distortion and providing a more realistic sound image, including the upper harmonics of vocalists. The dynamic range of the recording also improved, and background noise was dramatically diminished. This change is clearly illustrated in the excerpts from two recordings by soprano Edith Day found in Spectrograms 1—6 and 1—7. Both of these examples were recorded on stage and the vocalist and orchestra are playing *fortissimo*.

“Skyrocket” from *Irene* was recorded acoustically on the stage of New York’s Empire Theatre in 1920. In this recording, the sound of both the voice and the orchestra are at quite a distance from the listener. The recording was re-released on a vinyl long play record by Monmouth Evergreens (album MES 7057) and as much ‘age crackle’ as possible has been removed, although a general wash of blue spots can be seen behind the vocal line and the orchestra in the lower frequencies. Although Day is singing *fortissimo*, the partials associated with her voice are completely absent above 3,000Hz, and the only instrument accompanying the singer that is visible in the Spectrogram is the trumpet; the rest of the orchestra is an indistinct aural blur behind her voice.

In contrast, her 1927 electrical recording of “The Sabre Song”, from *The Desert Song* shows strong partials over 4000Hz, as well as the lower amplitudes. There is little evidence of crackle, excepting the occasional artefact from the aged disc surface. Day’s voice is rich and clear, and the chords played by the accompanying instruments are readily identifiable as a group of faint straight blue streaks under the vocal line. For...  

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110 See also CD Track 2—4
111 See also CD Track 2—6
112 For instance, the vertical blue line at the bottom of the Spectrogram, above the letter (A) is caused by a small scratch on the surface of the shellac disc.
the listener, the voice is smoother, rounder, more “true to life” and possesses a more immediate quality. Electrical recording added a new dimension to the appreciation of the reproduced voice and its accompaniment. An understanding of the dramatic differences in voice reproduction, and the effect of the recording medium is crucial when using spectrographic breakdowns for vocal analysis, and to identify individual voices’ idiosyncrasies.

Work continued throughout the 1920s to improve recording and broadcast technology in the radio, recording and film industries, particularly in terms of the microphone. Consequently, the 1930s commenced with the introduction of the improved condenser microphone, the new ribbon microphone by RCA and a new dynamic microphone\textsuperscript{113} by the Western Electric Company. In one form or another, all three of these microphones are still used in recording and broadcasting. Microphones meant musicians no longer had to crowd round a single point in a recording studio, allowing recording artists to play in the more usual configuration, as seen in Figure 2—9. If necessary, performers were also able to use more than one microphone—a capability particularly important in popular music, where a vocalist often joined a dance band for at least one chorus. In the late 1930s, the introduction of multiple microphones feeding into a mixing board and a single recording channel made it possible to raise or lower the output of each microphone, and to artificially balance the sound of a vocalist and an ensemble.

Many consider the ribbon microphone to be the most natural sounding microphone ever developed, and it was immediately embraced by the recording and broadcast industries. It was the first commercially successful directional microphone used in broadcasting and filmmaking, and is characterised by its very smooth sound when placed close to a singer or orator. Enabling singing in a low, gentle register with very little vocal exertion, it was an ideal microphone for the increasing number of singers using the croon style.

\textsuperscript{113} The dynamic, or moving coil microphone, while a rugged and hardwearing piece of equipment, did not respond well to transient sounds. Recordings using this microphone lacked smoothness and finesse (White 2005, 129).
Figure 2—9: The Victor Orchestra recording acoustically (left) and electrically (right) showing the contrast in arrangement of instrumentalists.

Broadcasting the Voice

A Radiola stretches away through the narrow walls of the city apartment. It makes a new world of the old farm kitchen. It reaches out and out, and brings home the fun! There’ll be music and laughter and lectures and sports—day after day—week after week. The new generation will grow up with a bigger world to live in. The older generation will get new joy out of life.\(^\text{114}\)

The first commercial AM\(^\text{115}\) radio broadcast was made by KDKA in Pittsburgh, Pennsylvania in 1920. By 1940, the radio was present in 80% of American households. Figures 1—10 and 11 illustrate the growing impact of radio in the United States during this period. It took only two years for radio stations to spread across the continent, creating an instantaneous linkage between the east and west coasts. Growth slowed from 1923, but spiked again with the formation of the first two major networks: NBC in 1926 and CBS in 1927. After a slight reduction in 1929, the number of radio stations remained stable throughout the Great Depression, and surged with economic recovery. Figure 2—10 shows the national coverage and complexity of the broadcasting web in 1937.

As Figure 2—11 demonstrates, sales corresponded with the number of stations. Advertisements for radios—which were sold with or without speakers, legs, valves and cabinets—proliferated in newspapers and magazines, and at dealers. Similar to the earlier marketing of phonograms, radio manufacturers advertised their goods as sources of entertainment and as elegant pieces of furniture. Prices ranged from approximately

\(^{114}\) RCA Advertisement _Saturday Evening Post_ 6 December 1924

\(^{115}\) AM stands for Amplitude Modulation.
Figure 2—10: The NBC Radio Network in 1937, showing the wide coverage of just one network.

Figure 2—11: Three dimensions of radio growth; the number of radio stations the value of radio sales and the household penetration across the United States.  

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$100 to $900 throughout the 1920s. In 1929, at the top end of the market, $690 would buy an RCA Radiola 67 radio/phonogram combination, or a Chevrolet 1½ ton truck.\textsuperscript{117}

Throughout the decade, average household income in the USA remained around $1200 per annum. The cost of a radio represented between 10 and 50% of the average annual earnings. Nevertheless, the number of households with radios continued to climb from the 1920s to 1940s, seemingly unaffected by the economic realities of the stock market crash, homelessness, and record unemployment.

Marketing

“There is no loneliness where there is a Radiola”\textsuperscript{118}

Marketing was the crucial factor in radio becoming an indispensable part of American life, and RCA was at the forefront of the campaign. Large, colourful, two-page advertisements were published in magazines, newspapers and trade papers. These posters were designed for maximum appeal and represented a cross-section of American society—happy domestic scenes, intimate social gatherings and joyful dance parties, as well as orchestras, opera singers and solo instrumentalists. As a leading manufacturer and supplier of phonograms and records, RCA was concerned by the dip in radio sales only two years after the first broadcast, and was determined to increase their market share in both radio broadcasting and sales. In 1922, they declared “[t]here’s a Radiola for every purse!”

Valdemar Kaempffert\textsuperscript{119} outlined RCA’s advertising campaign to “establish radio as a permanent influence in American homes” (p. 148). Through assiduous market research, RCA could target their advertising, and romantic portraits of everyday life accompanied their advertisements for greatest effect. Advertising emphasised that distant sounds and events could be brought into the home, regardless of where home might be:

All the world is Broadway now! Every farm kitchen is a box at the opera.

\textsuperscript{117}\url{http://eh.net/encyclopedia/article/scott.radio.industry.history} accessed 31/10/2012.
\textsuperscript{118}An RCA advertising slogan from 1926.
\textsuperscript{119}Kaempffert—science writer and editor of the industry magazine Printer’s Ink—called for the electrical manufacturing and merchandising industry to finance radio stations to broadcast adequate music, news, lectures and stories. 31 August 1922: pages 3-4, 6, 134, 137-139, 141, 145-146, 148. Available at \url{http://earlyradiohistory.us/1922how.htm}. Last accessed 26 June 2014.
Every little city apartment is a grandstand seat for a hundred great events…Some like the fun. Some like the music. Some the lectures. Everybody wants it all – loud and clear – tuned in at the turn of a knob – real as being on the spot.\(^{120}\)

By the end of the decade, as the household penetration of the radio climbed to over 45%, affordability, quality, value for money and the essential nature of the radio became an important marketing message. Some advertisers completely eschewed prices and emphasized the radio’s compatibility with socially genteel activities. Friends and family could listen to edifying programs together, and musical accompaniment for dancing, playing bridge and dinner parties could now be obtained at home. Atwater Kent Radio’s advertisements seen in Figure 2—12 sought to appeal to the modest yet sophisticated tastes of their listeners and buyers. Featuring trumpet speakers, their radios were simple enough for housewives to use, unobtrusive enough not to disturb that game of bridge, naturally true-toned, and reliable in just the same way as your favourite book and a good cigarette.

By the end of the 1930s, 80% of American households owned a radio and were able to experience broadcasts almost twenty-four hours a day. Many listeners relied on the radio for news and information. Its effect was extensive—a notable example being the mass hysteria engendered in October 1938 with H. G. Wells’ *War of the Worlds*, when almost a million people across the United States tuned in late to the broadcast and mistook it for reality. Just as television would a decade later, radio became a powerful force in shaping the thoughts, views and tastes of its listeners.

*The Torchsong and the Croon.*

It [crooning] is associated with all the unpleasant, smeary, wobbling vocalisms that one ever heard. It is perhaps unnecessary to say that modern microphone singing, even of popular dance tunes, need not be like that. (Bowlly, 1934, 1)

A new vocal style began to emerge after Prohibition in 1919, when the sale and consumption of alcohol went underground and nightclubs became speakeasies. Jazz was becoming more popular and the light lyric legitimate style began to merge with the vocal stylings of the belter, though without the associated volume or intensity. The

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\(^{120}\) *Saturday Evening Post*, 15 December 1923.
torch song—a song of love, loss, the pain of experience and the survival of heartbreak—was first introduced in America by Fanny Brice\textsuperscript{121} in the Ziegfeld Follies of 1921. Known more as a comedienne than a singer, Brice’s tremulous, portamento-filled performance of “My Man” was sung in the newly popular Parisian nightclub style. Though the success of the performance probably had more to do with her superb dramatic skills as a theatrical performer than her ability as a singer, the melancholic ballad style became immensely popular in nightclubs and fuelled the record and radio markets throughout the 1920s. The most popular torch singers sang in a wistful, gentle soprano style, well suited to smaller venues and (later) to the intimacy of the microphone.\textsuperscript{122}

The stylistic features of the torch song\textsuperscript{123} in the 1920s had antecedents in both popular and classical vocal styles. The torch song’s conversational, intimate mode of delivery derived from the lullaby or croon, and its rubato rhythms come from vaudevillian melodrama. The frequently used portamento della voce\textsuperscript{124} from the legato styles of

\textsuperscript{121} Brice, perhaps better known today as the subject of the film \textit{Funny Girl}, was a vaudeville performer who became famous starring in the Ziegfeld Follies.

\textsuperscript{122} Ruth Etting, Libby Holman, Belle Baker and Annette Hanshaw all sang in a light soprano and Kate Smith in a slightly heavier mezzo soprano. The exception was Sophie Tucker with her stentorian ‘red hot mamma’ belt.

\textsuperscript{123} Hereafter referred to as torch song stylings.

\textsuperscript{124} \textit{Portamento} is defined in the Grove Dictionary online as “the connection of two notes by passing
classical singing were still in vogue at the beginning of the twentieth century. Other features appeared throughout the 1920s, adding more pathos and drama to the performance. These included sudden dynamic alterations, changes in tonal and timbral qualities, the placement of notes earlier or later than expected, soft and smooth beginnings and endings incorporating ascending (scoop) or descending (slide) \textit{glissando}, the slight glottal catch, and the use of turns and other ornamentation to emphasise words.

Improvements in microphone technology, the rapid spread of radio broadcasting across the United States, and the rising uptake of the radio receiver brought changes to musical performance that could not have been imagined just a few years before. New artists emerged free from the necessity to be audible above instruments. The performance pitch of songs dropped, sometimes to such an extent that it was difficult to discern whether the singer on the radio or gramophone was male or female. Voices became warmer and more relaxed, while interpretations adopted a more \textit{legato} approach and generally slower tempos. The features of torch singing were embraced as the microphone became an extension of the voice. Singers were easily able to sing in a range closer to their speaking voices and a new style was born—the croon.

Initially, crooning was dominated by male performers and was not met with universal approval. Cardinal O’Connell in Boston labelled crooning “unmoral (sic) slush”, a “sensuous, effeminate, luxurious sort of paganism” and stated that any “man who whines that way…just isn’t a man”\footnote{The Literary Digest, 30 January 1932, 23. Cardinal O’Connell was the Archbishop of Boston from 1906 until his death in 1944. He was the first Boston Catholic leader to “command the city’s attention…anything he uttered was news, just because he had said it.” Paul McMorrow Boston Magazine June 2008, available at http://www.bostonmagazine.com/2008/05/over-his-dead-body/. Last accessed 12 October 2014.}. In London, Robert Lynd was quoted as saying that crooning made him wish “to take up one’s wireless set and throw it at the singer’s head…if ogling made a noise, this would be the kind of noise it would make; and, in music as in life, a little ogling goes a long way.”\footnote{The Literary Digest, 14 May 1932, p16. Robert Lynd (1879-1949) was a well-known Irish writer and essayist. He was the literary editor London’s Daily News from 1912-1947 and contributed weekly literary essays to the New Statesman from 1913-1945. http://www.ulsterhistory.co.uk/robertlynd.htm. Last accessed 12 October 2014.} Despite this opposition to crooning, the Philadelphia Orchestra—when faced with a 40 percent drop in subscriptions in audibly through the intervening pitches.”

1933—was prepared to accompany singer Kate Smith at a fundraising dinner concert reported under the banner headline of “Crooning to Save an Orchestra.”

The mid-1930s saw the emergence of Bing Crosby, a crooning everyman who recorded and performed a wide variety of popular music and romantic ballads. McCracken (2000) asserts that Crosby’s inclusion of folk ballads, nostalgic minstrel songs, hymns and popular music that “spoke of the benefits of home and family rather than big city living” (p. 282), helped to present him as one of the common people. She suggests that in his 1933 film Goin’ Hollywood Crosby offered a disciplined, muscular, active and emotionally contained crooner (p. 296), with the birth of his four sons confirming his everyman image (p. 304). Bing Crosby’s relaxed, easy-going performance style and masterly breath and voice control appealed to thousands of radio listeners and film goers. In particular, a young woman from Texas who was experimenting with every vocal style she could find—Mary Martin.

This chapter has established the acoustic characteristics of female vocal styles prior to the explosion of technological development that occurred in the 1920s—contextualising the change in the manner of female vocalisation in the American musical theatre after that time. It has identified the causal link between the establishment of the electronic reproduction of the voice and the change in vocal delivery that began in the late 1920s, and was essential to popular performance genres. Significantly, this chapter has highlighted a platform allowing an assessment of the full extent of Martin’s achievement in her integration of the disparate qualities of the female voice in American musical theatre, and the accommodation of the rapidly changing demands made by technological advancement.

Mary Martin represents a revolution in singing and vocal techniques engendered by the change in performance delivery that sought a new, more intimate relationship with the audience. Some performers were able to manage that change and the different vocal styles, others could not. The following chapter further contextualises Martin’s accomplishment, presenting three case studies of musical theatre stars that proved unable to make the same transition.

127 The Literary Digest 28 October 1933, 24.
CHAPTER THREE: THREE CASE STUDIES EXAMINING THE FEMALE VOICE BETWEEN THE WARS

In the United States of America, the “Roaring Twenties” was a period of economic prosperity. Stock prices were high and swift growth in business and commerce, coupled with the rapid development of an extraordinary range of technology for the home, resulted in many Americans enjoying increasing discretionary income and leisure time. During this decade, millions of women entered the workforce and accessed a more independent lifestyle, becoming a new force in the consumer market. Musical theatre rode the wave of excess throughout the decade, with between forty and fifty new musicals opening each season; numbers that have yet to be repeated. Virtually all those musicals, whether book musical, revue, or operetta, were diversionary entertainment which mirrored the decade’s lifestyles and its “good-time spirit” (Jones 2003, 55). With the gradual uptake of torch song stylings, the three main female vocal styles remained dominant in the theatres and the women who sang them abounded.

Chapter Three presents three case studies of internationally successful performers in the American musical theatre—Edith Day, Helen Morgan and Ethel Merman. Each of these women represent an example of the three primary female vocal styles discussed in the previous chapter—Edith Day the classical legitimate voice, Helen Morgan the torch singer, and Ethel Merman the belter. Each case study offers a short biography examining the background and career of the artist and an examination of their vocal styles. Significantly, each study considers the reasons why the subject was unable to adapt their vocal styles to accommodate the changing demands of the American musical theatre.

This chapter explores vital aspects of the current research that are essential to the understanding of challenges facing even elite performers as technological change transformed styles of female vocal production prior to 1940. The subjects of these case studies are revealed as trapped within the confines of their training (or lack thereof), their own (and their audiences) perceptions of their public voice and persona, and their lack of vocal versatility. More significantly, the chapter further contextualises Martin’s integration of disparate vocal techniques in response to the dramatic changes occurring around her and her contemporaries.
The Song Bird: Edith Day

Delicately arched eyebrows, a small and straight nose, a dark complexion, a mobile mouth ready to reveal her even, white teeth—such is the face of this clever actress who has won London’s laughter.128

Figure 3—1: Edith Day

**Biography**

Edith Day was born in 1896 into a musically active household. She studied the piano from an early age, gave her first public recital at the age of eleven, and appeared in various concerts, pageants and revues in her home town of Minneapolis. In 1915, she auditioned for Al Jolson, who had come to Minneapolis with a vacancy for a dancer in *Dancing Around*. Day auditioned in her school gym bloomers, singing a song from Victor Herbert’s *Naughty Marietta* and dancing a little dance taught to her by a local teacher.129 Al Jolson gave her the part, and it was only later that Day discovered she had to tap-dance with star dancer Frank Carter, perform a silhouette ballet, and run and jump on somebody’s shoulders in a carnival scene.130 Edith learnt everything in four days, and *Naughty Marietta* opened in St. Paul, Minnesota in September 1915. “I think

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128 *The Argus* (Melbourne, Australia), 5 June 1920, 8
129 In *The Minneapolis Tribune* interview 26 November 1961, Day remembered that the song went “zing, zing, zizi, zizi, zing, zing” and the dance “tiddly-ump-ump and tiddly-ump-ump.”
I was just lucky,” Day recollected in an interview fifty-five years later.\textsuperscript{131} Lucky she may have been, although it seems possible that there may have been a little more behind her selection by Jolson for his show.

Edith’s father, Oscar F. G. Day, was the editor of the Minneapolis entertainments magazine \textit{The Critic}, in which he wrote reviews and criticisms of music and theatre. He was also the author of three moderately successful novels,\textsuperscript{132} sang in a male quartet associated with the Zuhrah Shriners,\textsuperscript{133} and was a lyricist and composer in his own right. Day’s surviving songs (composed over twenty-three years) are a microcosm of song styles popular during that period – romantic songs, comic songs, celebrations of public interest and coon songs.\textsuperscript{134} The covers of these songs include the names and pictures of their well-known performers, one of the most common forms of music promotion in the early twentieth century. The very first name on the cover of Day’s coon song “De Cleanin’ Man”, is Al Jolson who, in addition to performing Day’s song, was also a Grand Master of the Freemasons, an organisation to which Day also belonged.

The question must therefore be asked – who was Al Jolson auditioning? A singer? A dancer? The daughter of a song writer? The daughter of a fellow master mason? The daughter of a theatre critic and editor of a popular magazine? Or a beautiful young woman in whom he saw an enormous potential? It is not possible to answer definitively, but the link between Al Jolson and Oscar F.G. Day was the first of a number of connections that helped Edith move forward in her career. Minneapolis’ hopes were high for their local star, and Day was pictured in \textit{The Minneapolis Tribune} wearing flowing evening dress and draped with silken gauze, while gazing pensively into the distance.

Not only had she won a part in legitimate theatre, Day had a standing offer from the directors of the Indianapolis Symphony Orchestra to appear as a soloist with the orchestra.\textsuperscript{135} Day returned less than a year later, seemingly fulfilling those expectations.

\textsuperscript{131} Ibid.
\textsuperscript{132} A Mistaken Identity: A Romance of Love and War (1891), The Devil’s Gold: the Story of a Forgotten Race (1892) and A Crown of Shame (1893)
\textsuperscript{133} The Ancient Arabic Order of the Nobles of the Mystic Shrine for North America was formed in 1872 in New York as a marching movement within the Freemasons. To join, one had to have achieved the rank of Grand Master within the Freemasons. The Zuhrah Temple is the Shriner Temple in Minneapolis.
\textsuperscript{134} An extremely popular song form that caricaturized and demonized the African-American population.
\textsuperscript{135} \textit{Minneapolis Tribune}, 14 November 1915.
A new photograph in The Minneapolis Tribune showed her in a haughty, sophisticated pose more suited to a grand opera singer than a musical comedy bit player. According to the accompanying article, Day had signed with Daniel Mayer (a famous impresario who managed artists such as Melba, Caruso, Richard Strauss and Paderewski) and was studying with renowned singing teacher Yeatman Griffith and Metropolitan Opera coach Carlo Edwards. Although the accuracy of the newspaper’s information is unknown, it was clear that Day was beginning to move in quite a different direction.

After touring with Dancing Around, Edith Day made her Broadway debut in Pom Pom, which was based on the Hungarian operetta Csibeszkiraly and starred Hungarian prima donna and lyric soprano Mitzi Hajos. Day appeared in two numbers: “Behind the Scenes”, which was a light-hearted song and dance duet with Tom McNaughton that displayed her vocal agility and range; and “Mr Love”, a quartet with Mitzi Hajos, Frank Hale, and Carl Judd. The quartet, though not vocally spectacular, brought the young performer to the attention of Anna Held.136 When Pom Pom closed, rather than accompanying the company on tour, Day made a brief appearance in the soubrette role of the disastrous two-day flop Yvette, where she “carried off most of what honours there were for the cast.”137 From Yvette, Day became Anna Held’s understudy in Follow Me, based on the Viennese operetta Was tut man nicht alles Liebe. It was during this time that Held introduced Day to popular theatre composer Harry Tierney.

Tierney was captivated by Day’s “poise, personality, beauty, voice and [her] taking manner that [to him] foreshadowed the stardom which she was later to achieve” (Tierney 1929, 29). In May the following year, Day transferred to the cast of His Little Widows after the youngest widow was taken ill, her fourth Broadway show in less than two years. Day was now under contract to the powerful theatre producers, the Shubert Brothers138 and rapidly expanding her network of supporters. The music performed by Day in these productions could barely be classified as operetta, let alone the high opera of Day’s hometown expectations. Nonetheless, although those parts were not large, the opportunities gained by the friendship of such influential patrons as Al Jolson and Anna Held were incalculable.

136 Anna Held (1873-1918) was the common-law wife of Flo Ziegfeld and is popularly credited with the idea that became the Ziegfeld Follies. She was a transatlantic star for two decades and died suddenly during the US tour of Follow Me.
137 This was the only positive thing the critic said about the show. The New York Times, 11 August 1916.
138 Minneapolis Morning Tribune, 27 May 1917.
**Leading Lady on Broadway**

In 1918, after again staying in New York in preference to touring, Day was cast as the leading lady, Grace Douglas, in a new musical *Going Up*; a musical farce based on James Montgomery’s 1910 play *The Aviator*. Set in Lenox, Massachusetts, the play acquired a new significance with the start of World War I. With music by Louis Hirsch and lyrics by Otto Harbach,\(^{139}\) the musical was intended to honour the bravery of French and American aviators fighting in the war, and the play was adapted to include rousingly patriotic songs such as “Here’s to the Two of You”.

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America and good old France,
You’re standing side by side,
Prepared like men to take your chance
In what the Fates provide.
We know you’re going to see it through,
On both our faith we pin;
So here’s good luck to both of you,
The best man’s got to win.
(Harbach and Hirsch, *Going Up*, 1917)
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*Going Up* opened in 1917 and had a run of 351 performances. Set in 1919, it proved to be the perfect vehicle for Day’s introduction as Broadway’s new leading lady. The music for the character of Grace Douglas had all the hallmarks of *operettic* style. The melodies were athletic and ran the gamut from swift and light to powerful and majestic, so needed a singer with stamina as well as considerable vocal skills. Comfortable for a lyric soprano and not vocally taxing for the young star, the overall range of Day’s role was C4 to G5, with a *tessitura* between G4 and C5 (Figure 3—2).

As the *tessitura* varied considerably between songs, Day could display the breadth of her vocal prowess. For example, in “The Touch of a Woman’s Hand” the *tessitura* is high in the range (B4b to D5), which showed Day’s upper register to advantage. In “The Tickle Toe”, the *tessitura* sits low (D4 to B4), making the song an ideal sing-along, and giving Day a chance to connect with the audience.

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\(^{139}\) Otto Harbach had written music for a wide range of musical theatre including operetta, farce, extravaganzas and revues from 1907, and was well versed in many vocal styles.
Figure 3—2: Comparative chart of range, tessitura and point tessitura in Edith Day’s first leading role, Going Up, (1917).  

“The Tickle Toe” was the most popular song in Going Up, stopping the show every night, as recorded in this paragraph from The New York Times:

Harry Dempsey, plucked from the chorus of Going Up at 4 o’clock in the afternoon, one day recently, made his appearance at night as Edith Day’s partner in the singing and dancing of the “Tickle Toe” thing. Four hours may seem an overlong time in which to rehearse a single number, but the popularity of the piece in question demands that the performers be prepared for eight to ten encores, and in these circumstances four hours is not excessive.

“The Tickle Toe” was typical of the songs that would continue to come out of Tin Pan Alley. It was a pretty, silly, naughty song with a repetitive tune and bouncing rhythm (see Figure 3—3), and after so many encores audiences would be unlikely to forget either the song, or the woman who sang it.

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140 The blue bars indicate that the pitches were taken from the piano-vocal score as these songs were not recorded.
Figure 3—3: The opening bars of “Tickle Toe”. Words by Harbach and Hirsch, Going Up, (1917), p.70 (see also CD Track 3—1).

**Irene: A New Type of Heroine**

Day’s success in *Going Up* led to Harry Tierney selecting her to play the title role in his 1919 musical *Irene*, based on another James Montgomery play *Irene O’Dare*. The play was re-written, and twelve songs were added (by Joseph McCarthy and Harry Tierney). *Irene* opened on 18 November 1919 and it was a resounding success with audiences and critics alike. *The New York Times* critic, Alexander Woollcott described the show as a saviour to Broadway’s:

…”desperate plight, with only seventeen or eighteen musical comedies on view, was magnificently relieved last evening when a new one called “Irene” was rushed into the breach at the Vanderbilt Theatre…It has no shimmy in word or deed. But it has a lot of catchy music. Also it has Edith Day and a comic fellow named Bobbie Watson. Also it has a plot. You never can tell what you are going to find in a musical comedy these days.”

Day left the New York cast after only six months, and travelled to London to open the show on the West End. London critics were effusive, and word of her talents spread swiftly, even as far as Melbourne, Australia:

A theatrical star of rare brilliance has appeared, and has taken by storm the hearts of a London audience. Miss Edith Day…scored…a great success

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142 This example was taken from the 1918 Edison cylinder recording 5976 and is part of the Cylinder Preservation and Digitisation Project at the University of California. Day does not sing on this recording, but the style is clear. http://cylinders.library.ucsb.edu/mp3s/5000/5684/cusb-cyl5684d.mp3 accessed 23 October 2013.

with her singing and her dramatic and dancing abilities.\footnote{\textit{The Argus} (Melbourne, Australia), 5 June 1920, 8.}

\textit{Irene} was a landmark in musical theatre. It was the first rags-to-riches/Cinderella story to appear in American musical theatre, and the story of the rise of its simple heroine became the staple plotline of the Broadway musical for years to follow. This new Cinderella heroine was an ‘everyday girl’, and the audience could imagine themselves being swept away to a new life. Although the music in \textit{Irene} was by no means simple fare, accomplished vocal skills were not necessary to sing the smash hit from the show, “Alice Blue Gown”.

\textbf{The Vocal Requirements of the New Heroine}

Most of the songs written for \textit{Irene} are \textit{operettic} in style, with agile melodies filled with frequent leaps and arpeggios, and wide ranges of at least a tenth. The overall range (Figure 3—4) is almost two octaves (C4 to B5) and most of the songs require a well-trained and responsive lyric soprano voice, capable of light, rapid and nimble movement. The exception to this is “Alice Blue Gown”. This is the first song sung by Irene O’Dare and encapsulates the everyday heroine with its conversational style, narrow range (C4 to E5) and low \textit{point tessitura} (A4). Her third song “Irene”, shares a

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Edith_Day_Show_Recordings}
\caption{Range, \textit{Tessitura} and \textit{point tessitura} in all Edith Day’s stage appearances for which there are contemporary recordings.}
\end{figure}
similar range (C4 to F5) and point tessitura, but a more complex melody of rising leaps and dotted rhythms, reminiscent of her earlier hit “The Tickle Toe”.

These were the only two songs recorded by Day in the Victor studios during the show’s New York run. They proved popular with the American audience and helped cement the Cinderella heroine in the psyche of the theatre-going public. During Irene’s London run, Day recorded five songs from the stage of the theatre in Drury Lane. All the recordings are acoustic recordings, so rely on the physical placement of the performers to maintain a proper balance between the voice and the orchestra. Spectrogram 3—1, shows a comparative Spectrogram of a small part of “Alice Blue Gown” recorded in London (A) and New York City (B).

In the New York recordings, Day’s voice is clear and close, obviously placed near the sound collection horn. The London recordings sound distant and muffled, but were recorded with musicians in their normal performance space and are likely to be the closest approximation of the sound from the stage. Day has no difficulty being heard, particularly in her upper and upper-middle registers.

The lower spectrograph shows more visible partials, as the sound source is closer to the horn in the recording studio, and there is more orchestral sound apparent behind the vocal line. In the London recording (A), Day introduces a gentle rubato. She slows slightly, lingering on the sustained “round”, before moving smoothly into the next line where a scooping portamento fills the final interval of the phrase. The recording is suggestive of live performance, and the familiarity of both the performance space and accompaniment fosters an atmosphere conducive to the kind of nuanced delivery displayed by contemporary classical singers. In contrast, the studio recording employs less legato and shows no evidence of rubato, although Day introduces a more conspicuous portamento on the word “I” which implied some coquettishness to the characterisation of Irene; perhaps suggestive of the differing tastes of London and New York audiences.

The most spectacular of Day’s songs is her final number “Sky Rocket”, an example of the operettic style in which she is at her best. Her voice is supple, her diction clear, her

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145 Six if “Castle of Dreams” is to be included. The song is attributed to Day on the recording even though she did not sing it in the show, and the voice on the recording sounds very unlike any of Day’s recordings, including her later recordings.
high notes ring through the orchestra and she sings “Sky Rocket” at a frenetic pace ($d=110$ mm) with almost no time to breathe (see Spectrogram 3—2). Although the duration of this example is only seven seconds, it encompasses almost the entire first phrase of the refrain, and the music at Figure 3—5 shows the lyrics and notes that Day sang in those short seven seconds.\footnote{The very small lyrics at the base of the spectrograph sit approximately under the representations of their sounds.} Although Day needs to produce the words quickly, there is also a distinct separation between each syllable. Her sustained notes are strong and even, with an immediate onset \emph{vibrato}. The clear octave and minor seventh leaps on the word “away” and the unbroken line of the descending motion on “ah”, are clear signs of Day’s vocal control. In a final flourish more typical of operetta, the speeding melody and accelerating lyrics surge to a spectacular ending on B5.\footnote{See Spectrogram 3—2 Appendix A.} Irene began as an everyday girl but finished as a glorious \emph{operettic} heroine, and the American equivalent of Cinderella’s transformation into a princess.

With the success of \emph{Irene}, Day had the chance to enter the mainstream of the new musical comedy genre. However, an attempt to create a similar show in London failed, and Day returned to New York to appear in two traditional operettas. In September 1922, she appeared in Victor Herbert’s\footnote{The lyrics were written by Guy DeSylva.} \emph{Orange Blossoms}, and her performance was described as “singing better than ever…a gay and likable person on the stage, though a trifle over vehement.”\footnote{Woolcott, \emph{The New York Times}, 20 September 1922.} This was followed by \emph{Wildflower}, a musical play written by Vincent Youmans and Herbert Stothart,\footnote{The book and lyrics were written by Otto Harbach and up-and-coming lyricist Oscar Hammerstein II.} a “piece rather plainly built around her [Day]...
talents… she…looked radiant, sang very well, [and] danced with moderate agility.”

One of the hits of the show, the narrative ballad “Bambalina”, was Oscar Hammerstein’s first success on Broadway (Hischak 2007, 22) and marked the beginning of his long friendship with Day.

In 1925, Day returned to London to star in Rose-Marie, Desert Song and Show Boat, all of which were highly successful and combined to earn her the title “The Queen of Drury Lane” (Hischak 2007, 63). Day did not venture out of her operetta comfort zone until she appeared in Noël Coward’s Sail Away in 1961. Until then, her performances remained firmly in the same vocal range and the tessitura of the shows stayed almost identical (Figure 2—4), although the point tessitura progressively lowered over the next five years as her voice matured, became heavier and gradually lost its earlier agility.

The Queen of Drury Lane: A Voice at its Peak

Day’s return to Drury Lane began with the opening of Rose-Marie on 20 March 1925, and her rendition of the warm, smooth “Indian Love Call” made her a darling of the English stage. Rose Marie was pure, bright operetta. Its range is lower than that of Irene, but its point tessitura is higher due to the absence of any songs in a popular style. Notations on the orchestral scores and instrumental parts reveal that this song was transposed down a semitone from the published piano/vocal score. Its opening sits only a tone higher than the point tessitura of the entire show (see Figures 2—4 and 2—6), and is also at the centre of Day’s vocal range. The relaxed way she produces the notes illustrates her smooth, even vibrato and unbroken legato lines.

Figure 3—6: The written score of the opening from “Indian Love Call” (Harbach, Hammerstein II and Friml 1924, 49); see also Spectrogram 3—4 and CD Track 3—6.
Spectrogram 3—4 presents an excellent example of the classical soprano phonation and Day’s superb vocal support and breath control can be seen in the opening bars of the song. While the fundamental is higher than the first formant of the average spoken [u], Day tunes the formant upwards to match the pitch of the fundamental. Since the second partial is already within the general area of the second formant, both are amplified by the natural resonances of the vocal tract. Spectrogram 3—4 shows an electric recording, though also recorded with the singers on the stage and, consequently, the sound is slightly muffled. However, at this particular point, the sparse orchestration enables Day’s voice to soar through the orchestral texture, even though the pitch she is singing is not particularly high.

After she had finished *Rose-Marie*, Day starred in Sigmund Romberg’s exotic, romantic operetta *The Desert Song*. Audiences and critics alike responded warmly to her portrayal of Margot:

…the darling French girl in love with life and adventure [who] captivated the audience as much by her vitality as her beautiful voice. In the end they cried for “Edie,” who was too overcome to speak.

The title song, Day’s love duet with co-star Harry Welchman, “simply brought the house down” and the “French Marching Song”, with Day and the chorus marching in formation dressed in soldier’s uniforms “was encored until the very stalls were humming and stamping in time.” The show was a colourful spectacle with a large cast of singers and dancers, but elements of doubt and reservation began to creep into otherwise glowing reviews. The theatre reviewer in *The Times* commented that Day made it “pleasantly clear that Margot [was] enjoying herself, even in the midst of peril,” and concluded that “when all is said and done, it [was] the massed dancing that remain[ed] the chief pleasure of this cheerful evening.”

To expostulate why Miss Edith Day is Miss Edith Day [would be]…to waste

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154 All references to spoken formant frequencies are taken from Howard and Murphy, 2008, p.47.
155 *The Desert Song* opened in West End on 7 April 1927, six months after its Broadway debut. In both London and New York it ran for 471 performances, although Day did not remain for their entire run.
156 *The Daily Sketch*, 7 April 1927.
157 *The Daily Sketch*, 7 April 1927.
158 *The Times*, 8 April 1927.
the day and a lot of other things as well. She sang exceedingly pleasantly, and went through her tragic experiences with a heartening jollity.\textsuperscript{159}

It is evident from these reviews that audiences did not necessarily come to see the character Day was playing or listen to the music she was singing. Instead they came to see Edith Day performing, with some devoted fans queuing all night in order to attend.\textsuperscript{160} Importantly, Day’s recordings of \textit{The Desert Song} reveal a maturing voice developing a richer, heavier and darker sound; a voice with the character of a mature woman, rather than an \textit{ingénue}. At thirty-one years old, Day’s voice was no longer as agile as it was in \textit{Irene}. The lyrics of the faster vocal passages are less distinct as she struggles to voice each syllable, although the sustained notes in her upper register seem effortlessly light and smooth.

Day’s next appearance was as Magnolia in the London production of \textit{Show Boat},\textsuperscript{161} which was set on the Mississippi River during the 1893 Chicago World Fair, with folk and blues music as well as the usual operetta standards. The English audience found the setting, and much of the plot, somewhat incomprehensible:

\begin{quote}
[I]t is utterly alien. Here we float theatres only in [a] financial sense. The houseboat on the Mississippi in which entertainments are given has no counterpart on the Thames. We have no colour question. Our sheriffs do not walk about in black frock coat, sombrero, gaiters, and an evening-dress waistcoat, and talk of arresting people. It is all rather bewildering.\textsuperscript{162}
\end{quote}

As with \textit{The Desert Song}, critics were non-committal about Day’s performance. She sang “extremely well”, with a “pleasing voice”, the part of Magnolia had “good scope for the display of her versatility”, and there was “nothing that any musical comedy star could be asked to do…that she [could not] do with complete accomplishment.”\textsuperscript{163} One critic marvelled at the character of Magnolia, and went on to say the “fact that she is also, very unmistakably Miss Edith Day in no way lessens her appeal.” These bland

\begin{footnotesize}
\begin{enumerate}
\item[159]The Daily Telegraph, 7 April 1927.
\item[160]The Daily Sketch, 7 April 1927.
\item[161]The production opened on 3 May 1928 to a mixed critical reception and ran for 350 performances. It was considered to be American musical theatre’s first masterpiece.
\item[163]The direct quotations in this passage are taken from newspaper cuttings cut carefully out of the London newspapers and glued into a copy of the opening night program (covering all the advertising) without reference to the names of the newspapers. The program is held in the Theatre Collection, Victoria & Albert Museum, London.
\end{enumerate}
\end{footnotesize}
comments were similar to the cautionary asides made a year earlier, the inference again
being that her success in a role was due to her established presence as Edith Day, rather
than her vocal acuity, which was simply assumed. In his discussion of the “unequal
fashion” with which time dealt with characters in the play, the most blatant statement
that Day was more prima donna than actress came from James Agate of The Sunday
Times:

> Alone Miss Edith Day held out against the wreckful siege of battering days.
> Her locks were like the raven when we were first acquainted, and
> remained so to the end – a very creditable achievement for a character who,
> from the play’s chronology, must have been at least sixty.\(^{164}\)

**Rio Rita: The Aging Voice**

Day’s final show in her time as “The Queen of Drury Lane” was *Rio Rita*, penned by
the team of McCarthy and Tierney. In contrast to the 494 performances of Ziegfeld’s
production in New York, its London season ran for only 59 performances after opening
on 3 April 1930. This short run could be explained by the three year hiatus between the
show’s debut on Broadway and its opening in London, but it is more likely the 1929
release of the film version (also produced by Ziegfeld) was the main reason for the
lukewarm reception. Even the critic from *The Daily Telegraph*, despite having not seen
the film version, found it “easy to imagine that on the screen its plot was more effective
– as drama – than Messers. Guy Bolton and Fred Thomson have made it in their
play.”\(^{165}\)

*Rio Rita* has the lowest **point tessitura** of all Day’s recorded shows, and one of the most
striking differences between this and her work in previous productions is the similarity
of many of her songs. There is a preponderance of gentle waltzes (the songs in duple
time include triplets that imply triple time), the tempo is slow and languid, and brighter
songs are reserved for the male chorus of American rangers and the orchestra.\(^{166}\) There
are no rapid, tongue twisting songs where Day can exercise her vocal agility, or fervent
marching songs to demonstrate her melodramatic flair, and the fact she was not singing

\(^{165}\) The Daily Telegraph, 4 April 1930.
\(^{166}\) With music and lyrics by Harry Tierney and Joseph McCarthy, *Rio Rita* tells the tale of the love
between Texan Ranger Captain Jim Stewart and English-Irish-Mexican girl Rita Fergusson against the
backdrop of Mexico and the Rio Grande. Considered to be the last of the 1920s operettas (Traubner
2003, 391), the show provided bright, Mexican dancing girls in contrast to the sturdy Texan Rangers.
at her best was noted by reviewers.\textsuperscript{167}

“If You’re In Love You’ll Waltz” is low in her register, the waltz melody made up of rocking arpeggios that mostly remain between C4 and C5. A short bridge section sees Day singing briefly up to G5, but she sings the lower option at the gentle final cadence. This final sustained F5 shows more tension that would be expected from Day: with a fast \textit{vibrato} of 6.7 Hz and a narrow \textit{extent} of only 30 cents. A slight “raggedness”, not apparent in her earlier recordings, also becomes evident (Figure 3—7).

This is even more marked on the final note of “Rio Rita”, where her \textit{vibrato} does not start until several cycles into the note. In the lower pitches of the first refrain in “You’re Always in My Arms”, Day’s vocal control is limited (Figure 3—8). Her \textit{vibrato} is slow, uneven and jagged as she struggles to produce the low B3, making her sound strangled and uncomfortable. In the second refrain, a solo violin plays the melody and Day sings a higher countermelody, up to a G5 rather than an occasional E5. The final two sustained notes (G5 and E5) exhibit the smooth and regular \textit{vibrato} found in her earlier performances, but lacking the brightness apparent in earlier years.

Day retired from the stage after \textit{Rio Rita}, making only a few appearances between 1930 and her death in 1971. These included Hammerstein and Romberg’s final but short-lived operetta \textit{Sunny River} (1943), Noël Coward’s play \textit{Waiting in the Wings} (1960) and his 1963 musical \textit{Sail Away}. In 1934, Day recorded a medley of three songs for Decca—“Romance” from \textit{The Desert Song}, “Alice Blue Gown” from \textit{Irene}, and “Why

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{vibrato.png}
\caption{The increase in the raggedness of Day’s \textit{vibrato} during the final cadences of “If You’re in Love You’ll Waltz” and “Rio Rita”. See also CD tracks 3—7 and 3—8.}
\end{figure}

\textsuperscript{167} \textit{Ibid.}
Figure 3—8: Ragged and uneven vibrato showing the lack of vocal control in Day’s lower register (see also CD Track 3—9).

Do I Love You” from Show Boat. Accompanied by strings and piano, Day sang in a small voice, adding swoops and slides with breathy anticipation, all of which combined to give the uncomfortable impression of a restricted singer trying too hard. Her vibrato is irregular, fast and narrow enough to be almost non-existent, and her swoops and slides appear uncontrolled, falling well below/above the target notes and taking some time to settle to the pitch. Intended as a soft, intimate recording, it was a failure, and was not released until its inclusion on a 1964 Decca compilation of obscure 1930s recordings entitled the Great Stars of Musical Comedy.

A complex web of associations brought Edith Day to Broadway and the West End, but it was her talent, voice and personality that made her a star. After Irene, Day combined opera and musical comedy, making a successful career in operetta until its decline in popularity from the early 1930s. In the early 1920s, as a beautiful soubrette, Day’s light, agile voice allowed her to sing in a wide variety of song styles: fast and light, gentle and flowing, fervent and dramatic. However, as Day grew older her voice became heavier and less agile and her tone became increasingly unconvincing as the young romantic lead. Remaining identifiably Edith Day, rather than taking on the character of the part she was playing contributed to her inability to engage more age-appropriate roles. Edith Day was undoubtedly the most popular female performer in London, but she was unable and unprepared to relinquish the role she had built for herself on the stage. As a result, her career effectively ended before the age of forty.
The Torch Singer: Helen Morgan

She was not beautiful nor very bright and her sad little voice belonged in a speakeasy providing synthetic tears for the synthetic gin. All she had was the faculty of communicating a vague, enormous melancholy, but it was enough...for the peculiar temper of her time.\textsuperscript{168}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{helen_morgan.jpg}
\caption{Helen Morgan 1926/7 (Used with permission of Culvert Pictures).}
\end{figure}

\textbf{Biography}

Epitomising the 1920s \textit{torch song} singer, Helen Morgan was a vocalist, actress, movie star, radio performer and nightclub owner. She became an icon of urban America during the Prohibition period, and was one of the most popular torch singers of the 1920s and 1930s (Kreuger 2003). She had a shimmering, light soprano voice, and sang as though her heart was breaking. Perched on the piano, her intimate vocal style invited her audience to share her troubles or indulge in their own romantic sorrows (Cullen, Hackman and McNeilly 2006, 795).

The details of Morgan’s early life are scant. Biographer Gilbert Maxwell appears to have adjusted her origins to include the story of a father who ran off when he found his new wife was pregnant (leaving a brave, long-suffering single mother\textsuperscript{169}) the return of

\textsuperscript{168} Wolcott Gibbs, \textit{Life}, 8 July 1946, p 84.
\textsuperscript{169} Lulu married three times between 1899 and 1909, but there is documentary evidence, discovered by
Helen’s father in 1910, and the family’s reunion. Whether this was an attempt to describe the actual circumstances of her early life or to apply a patina of respectability to an otherwise morally questionable life story is open to question. However, the remainder of the biography significantly increases the likelihood of the latter scenario. That said, more recent research indicates that Helen Morgan was the second and only surviving child of Frank and Lulu Riggins, born around 1902 and initially named Helen Emma Riggins. The surname Morgan was adopted when Lulu married her third husband, Thomas Morgan.\footnote{The 1900 census lists Morgan’s parents with no children. The 1910 (April) census lists her as Helen Morgan and 7 years old. This suggests that, since there was as yet no reason to lie about her age, she was in fact born in 1902. Her death certificate states 1903, ships passenger lists in 1930 and 1933 state 1904, a 1937 passenger list states 1905 and, on the 1940 census, her age was declared at 34 (1906).}

Morgan began her singing career at the age of ten in a small Montreal club called the French Trocadero. She was so successful, and the club so tightly packed at the end of her first week, that only those closest to the bar could see or hear her sing. An enterprising listener lifted her on top of the battered upright piano, creating the signature style that was to follow her to New York and Broadway (Maxwell 1974, 10). In 1923, after winning a Canadian beauty contest and being crowned Miss Mount Royal, she visited New York as the guest of Miss America, Katherine Campbell. There she made a screen test with Richard Barthelmess (co-founder of Inspiration Pictures) and appeared as a featured extra in a number of silent features shot in the city.\footnote{I am grateful to Christopher Connelly for sharing this information, collected during the research for a new biography of Helen Morgan.}

In September 1923, Morgan won a part in the chorus line of Ziegfeld’s touring production of *Sally*, starring Marilyn Millar. She then went to Chicago to perform cabaret at the Café Montmartre, and continued to build her reputation as a torch singer. In November 1924, Morgan returned to New York as the headline artist at the opening of Billy Rose’s first nightclub, the Backstage Club. Engagements in two hit revues, *George White’s Scandals* (1925) and *Americana* (1926), followed. Morgan opened her own nightclub, Chez Morgan, where she performed each evening after her theatre shows had finished. Gaining as much notoriety in her role as a glamorous co-owner and host of a speakeasy as she did singing “Nobody Wants Me” in *Americana*, Morgan appeared at the Palace Theatre in early 1927. During her engagement at this venue—considered the pinnacle of success on vaudeville from 1914 to 1934—Morgan was...
noticed by Jerome Kern who subsequently cast her in *Show Boat* (Cullen, Hackman, & McNeilly, 2006, p. 859).

Morgan’s stage and cabaret successes lead to her starring as burlesque artist Kitty Darling in the ground-breaking film *Applause*, directed by Rouben Mamoulian. She later appeared in seven feature films, including *Show Boat* in 1936. Due to her alcoholism and deteriorating health, Morgan worked less throughout the late 1930s, giving only a few performances in England during 1938 and on the Vaudeville circuit in 1939. In July 1941, Morgan was performing regularly on radio, married for the second time, and the following month started rehearsals in a new *George White’s Scandals* production. Morgan collapsed on stage shortly after the show opened in Chicago, dying a few weeks later of cirrhosis of the liver. She was thirty-nine years old.

**Recordings**

I’ve never been a speech maker, just a piano sitter and a song singer.\(^{172}\)

Morgan made around thirty-four recordings throughout her twenty-year career, including a series of songs for Brunswick records in London during production delays in *Show Boat*. These Brunswick sessions represent most of the entertainment types in which she appeared — movies, newsreels, cast albums, radio and genre recordings.\(^{173}\) Morgan’s early genre recordings of the 1920s show a close connection with the theatrical and operetta vocal style of Edith Day — a light voice with bright timbre, fast vibrato, clear, clipped diction, and the cultured New England accent predominant in contemporary cinema.\(^{174}\)

There were three songs Morgan recorded multiple times: “Bill”, “Can’t Help Lovin’ Dat Man”\(^{175}\) and “What I Wouldn’t Do for That Man”.\(^{176}\) All three songs were strongly associated with Morgan, and have since become performance standards with a distinguished place in the jazz and musical theatre canons. Since these songs were recorded as studio genre and studio cast recordings, radio broadcasts and on film, they form a representative sample offering a more complete understanding of changing vocal styles and the difficulties faced by performers in adjusting to a new aesthetic during the

\(^{172}\) Helen Morgan in a 1933 news reel celebrating her first marriage.

\(^{173}\) Genre recordings refer to recordings made by an artist in their primary performance genre. In Morgan’s case this was torch songs.

\(^{174}\) Katherine Hepburn and Cary Grant are the two most recognisable actors who used this accent.

\(^{175}\) Both songs are from Jerome Kern’s *Show Boat*.

\(^{176}\) Written for the movie *Applause*. 

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In *Show Boat*, Morgan played the bittersweet role of the tragic mulatto Julie. As these songs were the least “operetta-ish” (Traubner 2003, 395), both Morgan and Julie provide a transition point between traditional operetta and newer Broadway styles. Morgan appeared in three different versions of *Show Boat* and recorded “Can’t Help Lovin’ Dat’ Man” and “Bill” from each of these productions: the original 1928 show conducted by Victor Baravalle and using the stage orchestrations by Robert Russell Bennett (Banfield 2006, 320 n73); a studio cast album directed by Victor Young and recorded at the time of the 1932 revival; and the 1936 film musical. In the latter, several original cast members were retained and many musical numbers used their original orchestration and scoring – a rare example of a relatively authentic transformation from the Broadway stage to the Hollywood screen. Bennett, who thought that Morgan’s voice “sounded good high or low or in between” (Bennett 1999, 102), later noted the performances of Robeson, Winninger and Morgan were very close to what they were on the stage (Bennett 1999, 151).

**The Torch song Meets Musical Theatre: “Bill” and “Can’t Help Lovin’ Dat Man”**.

“Bill” was interpolated into *Show Boat* to capitalise on Morgan’s popular *torch song* style, even though it was not originally composed in that vein and some commentators have suggested that it was never supposed to be sung as one (Banfield 2006, 175). In the original production (perhaps to entice nightclub clientele to begin their evening at the theatre), Morgan sang this song the same way as she did in the nightclub – sitting on top of the piano. This staging effect suggests that it was intended to be understood as a *torch song* in *Show Boat*. It is a simple ballad with just two stanzas in simple binary form. The A section is composed of four phrases, and in each one the melody traverses almost the entire range of the song (C4 to D5). The B section consists of two, eight-bar phrases which differ melodically, rhythmically and harmonically (although sharing the same two opening bars). The song is an excellent example of the torch stylings of the 1920s. Some of these are transcribed at Figure 3—10, including *portamento*,

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177 An additional extant recording, from the *Chevrolet Musical Moments*, Program 427, aired in 1938. It is also in B-flat major.
178 All three had previously appeared on stage in the show.
179 Originally written by Kern for *Oh Lady, Lady*, one of the musical comedies written by Jerome Kern, P. G. Wodehouse and Guy Bolton for the Princess Theatre.
anticipatory note placement, the scoop and the slide.

In this recording made while Morgan was appearing in the original production of *Show Boat*, the scoring for strings demands an intimate and *legato* interpretation. The violins share a falling crotchet accompanying pattern, the viola and ‘cello support the melody an octave below the voice, and the pizzicato double bass emphasizes the strong beats of the bar. In Spectrogram 3—5, the upper string accompaniment appears as faint, straight tones behind the voice. The plucked bass notes, which are heard clearly in the recording, can be seen underpinning the texture at the bottom of the screen.

Morgan’s use of *portamento* is evident in the fundamental from the beginning of the phrase, and discontinuities in the sound wave only appear in preparation for words where it is unavoidable: the aspirated “h” of “him” and “he”. Her frequently used approach scoops vary considerably in intervallic depth—the smallest is a semi-tone at “nise” and the largest is a fourth at “my” (see Figure 3—10). The phrase ends with a characteristic slide from A4 to D4 over a perfect cadence (V\(^7\)—I) in the accompaniment. Morgan references the suspended seventh by continuing below her target note (D4) to the C4 in order to intensify the ‘blue’ nature of the chord. Morgan’s voice in this recording is a light, bright soprano, which floats effortlessly within the song’s range and *tessitura* (see Figure 3—11).

The singer’s formant is clear but inconsistent, disappearing when she sings notes that fall below the *tessitura*. That said, when the formant is clear its added intensity emphasises Morgan’s anticipation of the rhythmic pulse—particularly on the first syllable of ‘ever’ and the word ‘came’—and counterbalances the perceived slowing of

![Figure 3—10: Spectrographic illustration of Torch song stylings in “Bill” (1928); see also CD Track 3—10.](image-url)
tempo by her use of scoops and slides. The result is a bluesy rubato effect that unexpectedly remains within the bounds of strict tempo.

The stylings observed in Figure 3—10 remain consistent throughout this 1928 recording and are replicated in those of 1932, 1936 and 1938. However, Morgan’s vocal technique changed when the song was transferred to the more intimate medium of film. On film, light soprano tones were generally the preserve of the young, romantic lead, with a darker, more mature sound expected of an older, worldly-wise character. Resultantly, “Bill” and “Can’t Help Lovin’ Dat Man” were transposed down a minor third in the film. While Morgan demonstrated a dark and husky lower register, it was not a part of the voice she was comfortable in, or adept in using. Although Morgan’s vocal quality in her film performance took on a warmer hue than her studio recordings, she was forced into her lower register, where she could not comfortably sustain her vocal technique.

Two spectrographs extracted from the melodic climax at the end of the first stanza are shown at Spectrogram 3—6. The first example (A) is taken from the 1936 film, and the second exemplar (B) from the 1928 recording. The lower pitch and slower tempo of the 1936 sample are plainly visible, as are the stylistic ascending scoops and descending slides, which cover more than an octave in both examples.
Comparison of the two samples clearly demonstrates Morgan’s different styles of vocal production. In the 1928 recording, her vocal tone is focused and controlled, her pitch exact, and her sound consistently supported by a strong singer’s formant. Figure 3—12 shows the fast, narrow vibrato expected around this time and present in both recordings. The sample from the 1936 recording lacks the upper partials clearly present in the earlier recording. A large hole has appeared in the spectrum on the word ‘my,’ precluding a constant singer’s formant and indicating a conscious change of vocal production. Although Morgan is performing in her middle register, there are inconsistencies in her pitch and vibrato. She sings constantly below the centre of the pitch throughout the sample. In addition her vibrato is uneven both in shape and extent, although becoming more regular as she crescendos and its extent widens.

Examination of a similarly climactic section in “Can’t Help Lovin’ Dat Man” reveals a comparable loss of vocal control. In the 1928 recording (B), Morgan crescendos in classical vocal style and Spectrogram 3—7 shows the highest relative amplitude in the fundamental frequencies and the strong upper partials. The increased intensity of each statement of the phrase can be seen on “wa-y” and “da-y” (Figure 3—13). In contrast,

![Figure 3—12: Comparison of Morgan’s vibrato on the word 'my' in “Bill”. See also Spectrogram 3—6 and CD tracks 3—11 and 3—12.](image)

180 The orchestra is at concert pitch in each sample, so there is no question that Morgan’s pitch is the problem, not the recording.

181 These leaps are not found in the published edition of the score, but are noted in Bennett’s piano/vocal score and full score.
the 1936 recording (A) shows Morgan’s apparent confusion about which production style to choose. In the first statement, she begins the phrase with a constricted larynx, resulting in a strangled sounding chest voice. She attempts a portamento to the C5, but produces an undignified yodel as she moves between her chest and head voice. Morgan reverts to an uncharacteristic breathy head voice in the second statement and, although the tone appears effectively produced, the rising intensity of the phrase is lost.

Figure 3—13: Transcription of the beginning of the bridge section in “Can’t Help Lovin’ Dat Man,” the 1936 film soundtrack (A) and the 1928 recording (B). See also Spectrogram 3—7 and CD tracks 3—13 and 3—14.

As the tessitura of “Can’t Help Lovin’ Dat Man” is lower than “Bill”, the limitations of Morgan’s lower register are more apparent. As Figure 3—14 and Spectrogram 3—8 show, whether singing in a classical head voice (B) or using a less refined microphone technique (A), she struggles to produce a viable note at the nadir pitch on the word ‘lovin.’ Though the 1928 recording remains at tempo and Morgan enunciates the lyrics carefully and clearly, almost no sound registers on the spectrograph. On either side of the C4, the E4s have slightly more substance, but the outer tones (B4 and G4) show a more substantial spectral contour. Morgan performs the 1936 recording (A) in rubato style and at a slower tempo, struggling for volume on the C4 (‘help’) and beginning to disappear into the orchestral background. The pitch of the following A3½ is flat and the tone contains no vibrato, giving the impression it falls outside the singer’s range.

With the advent of the microphone, the torch song style of the 1920s was gradually replaced by the microphone-dependent croon. Helen Morgan’s popularity and vocal stylings would have fitted well into the new radio and recording style, if she had been able to sing below C4. By the mid-1930s, the pitch of male crooning had moved from the light tenor range of Rudi Vallee to the more natural baritone of Bing Crosby, and the intimate female voice was likewise moving into the lower part of its vocal range.
Unlike the more versatile Mary Martin, Helen Morgan had to remain true to her torch song vocal style. Even if Morgan had wished to transition, she lacked the necessary vocal training and technique.

The *Belter*: Ethel Merman

When you write lyrics for Ethel, they better be good, for if they’re bad everybody’s going to hear them anyhow.\(^\text{182}\)

\(^{182}\) Irving Berlin quoted in Flinn, Brass Diva: The Life and Legends of Ethel Merman, 2007 p viii.
Biography

Ethel Agnes Zimmermann was born in Queens on 16 January 1908 and grew up surrounded by a comfortable, middle-class family.183 Like many families of the time, music was a part of her home life. Her mother sang as an alto in a small choir and her father (a bookkeeper in lower Manhattan) played the organ at his local Masonic Lodge. He also played keyboards in a small, local, amateur dance band, and the piano at home on Sunday afternoons and after work (C. Flinn 2007, 9). Ethel sang as her father played, and the louder he played, the louder she sang.

Merman began singing in public from the age of five. Billed as “Little Ethel Zimmerman”, she sang for picnics at the Women’s Republican Club of Astoria, at Masonic Lodges, local churches and the Chamber of Commerce, as well as entering singing contests. During the First World War, she sang for troops stationed at Camp Mills and Camp Upton on Long Island. At this time, according to biographer Geoffrey Mark:

> [h]er range was wide, but her tone was clear as a bell. Her voice actually reverberated like a chime. It was unique and easy to hear…Ethel approached her singing with such enthusiasm that the audiences would cheer with excitement. Her vibrato was natural and fast, much different than the sound of her adult years. Her New Yorky accent, which always evidenced itself in her work, was also much stronger in her youth (Mark 2006, 14).

After graduation, Merman began working as a secretary during the day and singing at nightclubs in the evening. Vinton Freedley (co-producer of Girl Crazy) heard Merman sing for the first time during her performances with Al Seigel between screenings of the latest movie features at the Brooklyn Paramount. He listened with amazement to her “big, bold sound … articulating every syllable perfectly … was exactly the sort of singer likely to appeal to the Gershwins” (Kellow 2007, 25). He arranged her audition with the Gershwin brothers, and Merman was hired.

Over a thirty-year period, Merman appeared in a staggering thirteen hit musicals. She smashed into Broadway stardom on 14 October 1930 as Kate Fothergill in the Gershwin

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183 The family lived on the top floor of the three-storey duplex, the ground floor was rented out and the second floor was home to relatives from her mother’s side of the family. Another aunt lived not far around the corner. Ibid. 5-6.
brothers’ hit comedy *Girl Crazy* with “abandon and conviction,”\(^{184}\) “dash, authority, good voice and just the right knowing style.”\(^{185}\) She “tied the proceedings up in knots”\(^{186}\) stopping the show for encore after encore. In a simple, slit black skirt and low-cut, red blouse, only five minutes after bringing down the house singing “Sam and Delilah”, Merman launched into the first act finale “I Got Rhythm” and into Broadway history. Dienstfrey (1986) quotes Merman:

> In the second chorus of ‘I Got Rhythm,’ I held a high C note for 16 bars while the orchestra played the melodic line – a big, tooty thing – against the note. By the time I’d held that note for four bars the audience was applauding. They applauded through the whole chorus and I did several encores. It seemed to do something to them. Not because it was sweet or beautiful, but because it was exciting. Few people have the ability to project a big note and hold it. It’s not just a matter of breath; it’s a matter of power in the diaphragm. I’d never trained my diaphragm, but I must have a strong one. When I finished that song, a star had been born. Me.

Biographer Geoffrey Mark claims the band played at double speed while Merman held that top note, and that the note was not a C\(4\) but an A\(4\). Merman did not record any of her songs from *Girl Crazy* until many years later and, while the 1947 version includes several sustained C\(4\)s held over the orchestra, the final sustained note lasts for four bars, not for the legendary sixteen. Nonetheless, those who attended the 1930 opening night support the veracity of Merman’s claim. Her performance was out of the ordinary, and the audience was amazed and excited. Writer and lyricist Dorothy Fields recalled that she had “never seen anything like it on the stage…[n]o one had ever held a note like that…beyond the length of endurance.”\(^{187}\) Another writer said it was “a feat equivalent to swimming the length of an Olympic-size pool at least twice without coming up for air.”\(^{188}\) One reviewer reported, “Miss Merman’s effect…was such that there was every reason to believe that they would make her sing it all night.”\(^{189}\) Pianist Roger Edens, who took over for the second act when Merman’s pianist Al Siegel was rushed to hospital during interval, remembers that she had to do ten encores before the show.

\(^{184}\) *New York World*, 15 October 1930.  
\(^{185}\) New York Herald Tribune, 15 October 1930.  
\(^{186}\) New York Daily Mirror, 15 October 1930.  
\(^{187}\) Quoted in C. Flinn *Brass Diva: The Life and Legends of Ethel Merman* 2007, p.33.  
\(^{188}\) Ibid.  
\(^{189}\) Ibid.
could continue.\textsuperscript{190}

The long-held “I-I-I-I-I-I-I” became a trademark of subsequent superstar \textit{belters} such as Judy Garland and Barbara Streisand. It contributed to the legend of the \textit{belt} voice, not so much as a natural quality, but as something unusual, something superhuman. On the \textit{Judy Garland Show} thirty years later, Merman and Garland stood together and sang an A4 over the band playing a chorus of “I Got Rhythm” for the equivalent of ten common time bars at a tempo of crotchet = mm120. “Well Judy dear,” asks the bright voice of Merman, “Are you all warmed up?” Garland’s warm, husky voice replies, “Mmmm, yes Ethel…..and you sing just as loud as ever.”

\textit{Torchsinger or Belter? Early Merman on Film}

Merman’s dramatic Broadway success as a trumpeting \textit{belter} was to continue unabated for many decades. Her legend assumes that \textit{belting} was the only style of singing in which she was interested and capable, but Merman was making her name as a torch singer. In early 1930, New York columnists began to compare Merman’s style to three popular torch singers: Libby Holman, Helen Morgan and Ruth Etting. Merman regularly performed Holman’s popular hit songs “Moa nin’ Low” and “Body and Soul.”

Merman’s transformation from torch singer to archetypical \textit{belter} is revealed in the six short films she starred in between 1930 and 1933.\textsuperscript{191} Merman performed two shows daily at the Palace Theatre while rehearsing \textit{Girl Crazy} at the Alvin Theatre. \textit{The New York Times} described her as a “comely ballad singer” whose performance “promises well for her debut later in season on the musical comedy stage.”\textsuperscript{192} Although this description bore no resemblance to the dynamo that stopped the show a month later, it was contemporaneously appropriate given Merman had recently starred in the short movie \textit{Her Future}. Set in a court room dramatically reminiscent of 1920s German cinema, the audience never discovers what crime has been committed. Perspective is a principal character in this film, with walls, floors and ceilings meeting at impossible angles (C. Flinn 2007, 50). In the court room, the judge sits on a towering podium high above the plaintiff (Merman) and her defence council, dwarfing all in the room. The

\textsuperscript{190} Ibid.
\textsuperscript{191} The fact that four of these films were made within a year, using the same studios and recording techniques, provides an even greater insight to Merman’s vocal development during this career defining period.
\textsuperscript{192} Quoted in Kellow 2007, p.26.
softness of Merman is intensified within the harsh lines of the set. Her simple dark
dress, cloche hat and sadness of her luminous dark eyes emphasize the tragedy of her
situation, forming a dramatic contrast to her looming surrounds.

Her first number, “My Future Just Passed”, is an archetypical torch song of broken
dreams and love. Like Holman, Merman moves between a heart-wrenching, wailing
belt-style phonation and a light head voice. She begins phrases strongly, and then falls
in intensity, pitch and volume as the phrase continues. Her vibrato in the belted notes is
tight and fast, reflecting the energy she uses to create the sound. Merman’s second
song, “Sing you Singers”, is composed in a gospel style. It is louder and brighter than
“My Future Just Passed”, and shows the voice that was to take Broadway by storm.
Merman sings the first statement of “Lord, Oh Lord”, with her arms lifted in
impassioned entreaty and a loud shouting belt; she seems not to exhibit any physical
strain trumpeting the D5. Spectrogram 3—9 illustrates how Merman has tuned the first
formant of the vowel to the second partial in order to maximise the partial’s intensity
and the overall sound of the note. The power spectrum in at Figure 3—16 illustrates the
success of this strategy.

![Figure 3—16: Power spectrum extracted from Spectrogram 3—9, illustrating the relative intensity of the second partial.](image)

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193 Music by Richard A. Whiting and lyrics by George Marion, Jr.
194 Music by W. Franke Harling and lyrics by Sam Coslow.
The second statement is an octave lower, sung in a quieter, less supported, low mixed head/chest voice with a ragged vibrato. The fundamental is lost in the visual noise of the accompanying piano and is barely visible in the Spectrogram, with any visible upper partials restricted by recording technology limitations. Figure 3—17 starkly illustrates the dramatic differences in intensity between Merman’s loud and soft phonation. This was to worsen as Merman grew older. In loud phonation, Merman’s vibrato is narrow, with an extent of only 25 cents, and extremely fast, approximately 8.5Hz. When singing softly, her vibrato remains at a similar rate (8.2Hz) but is ragged, uneven and considerably wider (61cents). The inconsistency of her vibrato became more obvious as she grew older—a legacy of her lack of vocal training—and impacted upon the aesthetic of her singing voice.

Between 1930 and 1933, Merman appeared in four Screen Song animations: Let Me Call you Sweetheart (1930), You Try Somebody Else (1932), Time On My Hands (1932) and Song Shopping (1933). In the first three of these films, Merman appeared seated in a window seat, a front portico, or on the hour hand of a giant clock with her

![Figure 3—17: Comparison of Ethel Merman’s vibrato from Spectrogram 3—9, loud phonation (left) and soft phonation (right).](image)

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195 U.M.&M. Television Corporation’s Screen Songs (distributed by Paramount) following the bouncing ball animations showcased a number of singers and big bands from 1926 to 1938.

196 Some listings show this short to have been made in 1932, however as the date in the open credits is 1930. As Merman’s vocal style appears to be less developed than in the two 1932 shorts, the 1930 date seems feasible.
hands placed demurely in her lap. In *Let Me Call you Sweetheart* and *You Try Somebody Else*, Merman sings in the same torch style as *Her Future*, but with some hints of her *belt* technique. The Ziegfeldesque lighting and Merman’s clothing and general appearance reference Helen Morgan’s performance style, but in *Time On My Hands* Merman utilises wider hand and arm movements and more belted notes. Nonetheless, she finishes the song on a softly phonated D4, though the *vibrato* is again ragged and uneven.

Figure 3—18 presents five gradated examples of Merman’s *vibrato* extracted from these pre-1933 recordings. Even though they are not indicative of pitch or rate, the graphs do illustrate the general shape of her *vibrato* and the effect of soft and loud phonation. When singing at a low dynamic, her *vibrato* becomes unpredictable, ragged and uneven. With an increasing volume, her vibrato becomes smoother and more even. This continued throughout her career, strengthening and growing progressively more noticeable as she aged, making it almost impossible for her to sing pleasingly in anything other than *belt* style.

In *Take a Chance* (1932), Merman introduced a bawdy, cynical *torch song* tribute to a late-nineteenth-century madam, “Eadie Was a Lady”. It was the hit of the show and prompted comparisons with Mae West. “Eadie” is the first example of Merman’s truly electric, powerful *belt* technique and she shows her increasing command of vocal power. Spectrogram 3—10 illustrates an example in which Merman halts her *vibrato* completely to produce a straight-toned, flattened B4, which leans strongly into the following C5. Despite this, the unevenness of the *vibrato* in the final three notes suggests that she had not yet settled into her later, effortless *belting* style. As seen in Spectrogram 3—11, her *vibrato extent* narrows at A and she finishes the phrase in an uncontrolled manner with limited *vibrato* (B). Merman’s *vibrato rate* has slowed (6.6Hz) and she exhibits greater control of her vocal technique in this recording, but the inconsistency of her *vibrato* and breath control show a singer with an inconsistent technique.

*Take a Chance* also heralded a subtle change in Merman’s appearance. The darkness of her hair and eyes were accentuated, her clothing became more revealing with larger and more obvious jewellery. This alteration was reflected in the Screen Song animation *Song Shopping* (1933), which presented Merman as an outgoing, confident singer no longer hiding her New York accent behind an affected New England accent. Her
Figure 3—18: Ethel Merman’s *vibrato* in the early 1930s, graded according to relative extent and rate, but not including a pitch reference.
fingers point to the sky as she lifts her arms to shoulder height. Sparkling eyes roll from side-to-side under dramatic arched eyebrows, as she gleefully presents a selection of songs with which the audience can sing along.\textsuperscript{197} Despite this change, Merman was still presented like a young Helen Morgan in the Paramount short film \textit{Be Like Me} (1933). With her slightly tousled hair and nervously moving fingers, she seemed small, feminine and sensual (see Figure 3—19). However, these gentle visuals disguised a subtle change in vocal production and belied the powerhouse below.

The opening of “After I’ve Gone” is soft and gentle and, given the techniques she had previously used, it would not be unexpected to see Merman change to an unsteady head voice as she moves above a G4. Spectrogram 3—12 tells a different story. Throughout the phrase, Merman maintains the resonant second partial by tracking it with the first formant, not moving to her head voice at all, even for the soft final note. Instead, she reduces the volume while maintaining the shape of her vocal tract, and produces a slow, smooth vibrato throughout the song. Even in the final phrase, the vibrato seen in Spectrogram 3—13 presents the even, regular waves of a relaxed, well-supported sound, and her final descending portamento shares the same strong control as her sustained notes. Then, adopting the stance that was to become her trademark over the next fifty years, Merman stands for the final phrase with her feet planted firmly and her arms widespread. No longer the deferent, submissive woman, she dominates the entire scene.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{merman_be_like_me.jpg}
\caption{Merman, the romantic \textit{belter} in \textit{Be Like Me} (1933) (Used with permission of Kino International).}
\end{figure}

\textsuperscript{197} A new song was inserted between choruses of “Sing You Singers,” obviously a song with which she was identified.
The Choice is Made: The Porter Years, 1934-1944

I’d rather write for Ethel than anybody else in the world. 198

Merman appeared in six hit shows between 1934 and 1944, five of which were written by Cole Porter: *Anything Goes* (1934), *Red Hot and Blue* (1936), *Du Barry Was a Lady* (1939), *Panama Hattie* (1940) and *Something for the Boys* (1943). The shows were bawdy, patriotic, and energetic, cementing Merman’s reputation as a comedic actress. By this time, her popularity was so great that a show’s success could be ensured simply by her appearance. With each song specifically written for her, Merman’s natural vocal abilities could easily be displayed. References to her as a torch singer and jazz and blues performer became increasingly replaced by commentary on her vocal brashness and loudness, e.g. “[a] calliope is as quiet as a sylvan nook [when] compared to Miss Merman.” 199

Figure 3—20 shows the vocal range of Cole Porter’s songs for Merman written during this period. They have a narrow mezzo-soprano range with the tessitura (of either a fourth or a sixth) resting in the upper middle of that range. As the range of the tessitura is extended by Merman’s spectacular D5 money notes, the point tessitura is found in the lower part of the tessitura between F4 and F4#. These money notes—in Merman’s case generally between a C4 and a D4—were often the apex note of the melody and the climax of the song.

The audience came for the money notes and Merman rarely disappointed them. Unlike the wailing torch belt of her earlier years, these notes were pure showmanship—Merman sang them because she could and because no-one else could sing them like her. Spectrogram 3—14 shows Merman singing three different money notes from 1936 to 1950. 200 All three are sung on C4 and Merman uses the same vowel shape on each occasion, despite each being contextually different. The Spectrograms are almost identical. The first formant tuned firmly to the second partial and the higher singer’s formant, resonating above 3000Hz to give the sound a brash and bright edge. Her vibrato remains narrow, and the rate has slowed to under 6Hz in each example, giving

200 “Floor” from “Down in the Depths on the 90th Floor” (recorded in 1936); “More” from “I Got Rhythm” (recorded in 1947); and “All” from “The Hostess with the Mostess” (recorded in 1950).
the sound a steady strength that seems unassailable. This is Merman in her prime, the sound effortlessly pouring from her chest.

Merman’s regular use of her *money note* meant that when the time came for her to express her character *in extremis*, she needed to ensure that it was even more spectacular. Nowhere was this more apparent than in the role of Mama Rose in *Gypsy*. “Rose’s Turn” is an angry, impassioned and raging demand for the character’s turn in the limelight, and Merman successfully channelled Rose into the performance. The result was a powerful outpouring of emotion not heard elsewhere in Merman’s recordings. The final note sung by Merman in “Rose’s Turn” is not as long as many of her earlier *money notes*, but its sheer vocal force is undoubtable. It is illustrated in the unique spectral image shown at Spectrogram 3—15. 202 Merman produces the short note on “for” in her usual *belt* phonation, and then launches into the word “me”. The Spectrogram clearly shows Merman’s resonant strategy, as she draws most of her acoustic power from the area of the fourth and fifth partials, which dominate the other partials (see Figure 3—21).

The first formant of the vowel “i” is placed too low in the spectrum to resonate either the second partial or the fundamental, but Merman appears to tune the second and third

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201 *DuBarry Was a Lady* is not included in this graph as Merman recorded only one song from the show.

202 This Spectrogram bears a startling resemblance to those of tenors Luciano Pavarotti, José Carreras and Plácido Domingo in (Miller 2008, 4-5; and Howard and Murphy 2008, 59)
formants to the fourth and fifth partials. The energy boost is heightened, as this is also within the area of the singer’s formant—even the fortissimo trumpet cannot offer any resistance to the force with which Merman produces the C5#. Merman’s vibrato at 4.4 Hz is very slow and consequently sounds heavy and obvious. However, her remarkable control of unamplified belt phonation over a forty year period remains unrivalled.

While Merman could preserve the iron control she brought to her fortissimo fanfares, her head voice continued to decline, becoming almost unusable on an unamplified stage. Her vibrato became increasingly erratic and her pitch lost its pin point accuracy. Figure 3—22 shows Merman’s vibrato on the word “please”, sung using soft phonation in “Make it Another Old Fashioned Please”. There is barely any trace of actual vibrato and her voice wobbles over almost a tone. Although the songs written for Merman had a brassy brightness that was immediately recognisable, this erratic control persisted throughout her career.

For a decade, Merman sang songs written for her by the same composer, in the same style, with the same ranges, similar tessituras and a point tessitura that barely altered. Once she had learnt a part, she sang it the same way every time, even claiming that she

![Power Spectrum extracted from Spectrogram 3—15 showing the higher relative amplitude of the fourth and fifth partials.](image-url)
Figure 3—22: Merman’s erratic vibrato in Panama Hattie (1940). See also CD Track 3—26.

could write shopping lists in her head while she was singing on stage (C. Flinn 2007, 73). Porter did not ask her to alter her style or persona – they were a successful combination that did not need to change. This was fortunate, as Merman was simply unable to adapt her vocal style. She could sing clearly and intelligibly as long as she was singing in loud phonation. In softer phonation, using her head or even her light chest voice, she was unable to properly control her pitch or vibrato.

Similarly, Merman could not change the way she sang on stage. When performing, Merman stood still, feet apart and rooted firmly to the floor. Her gestures were large and her arms, held at shoulder height, came forward towards the audience; a physical representation of the energy she delivered. Her face and eyes were fixed to her audience and she rarely looked at fellow artists on the stage during performances—a feature that remained static and ineffective on television. Merman was a creature of the live stage, with a voice fine-tuned to penetrate the furthest reaches of the theatre. Her voice lost part of its live intensity when translated onto record, and her recordings were unable to capture her rapport with an audience. Despite this, her career continued, though her voice gradually deteriorated until she became a caricature of her own former glory.

This chapter has highlighted the negative effect of new recording and broadcast technology on the careers of popular proponents of traditional female vocal production in American musical theatre. It has demonstrated that even major stars were unable to develop their vocal techniques to adapt to the rapid technological advances, nor to alter
familiar performance styles to appeal to an increasingly diverse popular audience. This material provides a perspective for the appraisal of Martin’s unique ability to accept and integrate a wide variety of vocal styles, and her easy adaption to the new performance approaches demanded by innovative technologies.

Thus far, the dissertation has provided the necessary background to accurately assess the ways in which Mary Martin’s flexible vocal style exemplified changes in female vocal production from 1940-1955. Importantly, it has also highlighted Martin’s ready assimilation of the technological progress made in recording and broadcasting technology. A review of these findings is presented in the following Summary of Part One, after which the focus will return to Martin and her search for vocal identity through her early studio and radio recordings in Part Two.

Summary of Part One

Part One of this dissertation has presented the historical background and biographical context to enable an informed examination of the changing manner of female vocalisation in the period 1940-1955. In particular, the preliminary component of the thesis underlines Mary Martin’s ability to produce an integrated vocal style that adapted to technological developments occurring at the time. Martin’s life has been viewed through two different lenses—the public world of the media and the private world of personal recollection—confirming this performer’s influential place in the world of entertainment and celebrity.

Martin approached her chosen career with single minded determination that was supported unquestioningly by first her parents and sister, and ultimately by her husband. She had a strong desire both to please her audience and to find her métier, which motivated her to learn many different styles of performance from a very young age. Additionally, her aptitude for vocal mimicry and her teachers’ early encouragement to apply classical training to popular repertoire meant she was able to move between different production techniques with relative ease. By the time of her debut on Broadway, Martin was already a flexible performer. She had developed a vocal technique that included the effective use of the microphone, the phrasing and delivery of

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203 Martin claimed to have learned her craft at the movies and won prizes for “singing exactly like Bing Crosby” (Martin 1977, 29).
blues songs, yodel techniques, and counterpoint singing—any of which she could present on demand.

Additionally, Martin’s carefully orchestrated media presentation shaped her public image from the moment of her discovery on the Broadway stage. However, rather than remaining static, that image changed and matured as Martin reinvented herself to accommodate fluctuating audience and performance demands.

Three of the main forms of musical theatre in the United States of America up to the end of World War I—comic operetta, the musical play and the revue—have been explored. Analysis of extant recordings within the present research has established the acoustic of three vocal styles used by women in these genres—the classical voice, the light lyric soprano, and the coon shouter or belt—revealing the roles these women played as reflective of the vocal styles they employed. The comic operetta’s heavy classical soprano was predominantly found in the heroine of romantic tales set outside the American experience. This voice type displayed a strongly resonant fundamental, an even and regular vibrato, and a legato performance style. The lighter, lyric soprano was employed by the modern American girl found in the musical plays that were beginning to become more relevant to life in the United States of America. Less legato than the classical soprano, the lighter voice of the musical play adopted clear enunciation of lyrics and occasional embellishments to the vocal line. The belter played the older, ribald and more experienced roles—frequently in the black face familiar from the minstrel shows of the previous century. Successful performers rarely deviated from the character-type that had made them popular and their presence on the stage, even performing unrelated songs within a show, increased the cachet of the production.

These three archetypical vocal styles were those that most influenced the continuing development of the American musical theatre. On stage, these performers relied on classical vocal training or the ability to shout in order to be heard in the theatre and over the accompaniment. Once a voice was no longer audible from the stage, a performer’s career was effectively over.

The early decades of the twentieth century brought with them dramatic advances in technology that were to change the sound, delivery and audience expectation of the musical theatre performer beyond imagining. An examination of electric recording and the rapid uptake of broadcasting and playback technology highlighted the inevitable
changes engendered by the new technology, establishing that, unlike any generation before her, Mary Martin had the musical world brought to her home. She did not need to travel to hear voices from distant locales, nor did she need to search for different popular or classical styles. Including a vocal style that developed directly from the use of the microphone—the croon—varied forms were all delivered to her home and to the new movie theatre in the local town. Martin adopted the croon in the course of her quest for a vocal technique that would allow her successful entry to the entertainment world. Her development of this technique will be examined in detail in Part Two of this dissertation.

An examination of the lives and vocal techniques of three performers who enjoyed immense popularity in their lifetimes—Edith Day, Helen Morgan and Ethel Merman, \(^{204}\) demonstrates the hallmarks of their success as a combination of remarkable natural ability and extraordinary skills—whether trained or untrained. However, the inability to modify their vocal techniques to adapt to technological advances, to integrate new vocal styles to appeal to a wider popular audience, or to alter their stage presentation to account for their changing abilities or performance environments limited their success in the broader entertainment industry.

Edith Day’s lissom beauty, sparkling personality and agile lyric soprano voice won the hearts of the New York stage and London’s West End. However, the spectral analysis of her recordings demonstrates that as she grew older, her voice developed a heavier, less flexible mezzo soprano timbre. She was no longer suited to the role of the young soubrette, and was unable to alter her performance to accommodate the demands of the new, intimate style of musical theatre.

Helen Morgan’s light soprano timbre and melancholic torch song style illustrates the gradual blending of classical vocal techniques with the increasingly popular light jazz stylings. Analysis of her recordings suggests technological developments and the transformation of intimate torch songs into the low croon of the microphone singer—aligned with this singer’s failing health and lack of vocal training—prevented her from following the stylistic transformations evident in contemporary musical theatre.

\(^{204}\) In the case of Ethel Merman, her popularity remains high years after her death.
Ethel Merman brought life to many Broadway roles that continue to be revived in the twenty-first century. The loud, unique timbre of her voice was audible to the very back row of the theatre. However, her old-fashioned vaudevillian delivery and choice of just one particular vocal style at the expense of others meant her success in theatre was restricted to particular character types; many other roles were closed to her. The examination of Merman’s early cinematic appearances and analysis of her vocal style in those films has established that she originated as a torch singer. Acoustic analysis has shown that, although she continued to sing in that style throughout her career, her vocal control was not sufficiently effective for it to remain a viable or operative part of her vocal technique.

Although faced with the same challenges as these three women, Martin was able to modify her vocal character in order to take advantage of the technological and social changes occurring around her. By adopting a variety of vocal techniques from disparate performance situations and including them as sustainable parts of her performance practice, Martin laid a firm foundation to build an integrated vocal style that was readily adapted to a wide range of performance spaces and technologies. Part Two of this dissertation explores Martin’s use of diverse performance and vocal techniques in separate performance settings, as well as her development and integration of those techniques in a single environment.
PART TWO: MARTIN’S EARLY RECORDINGS AND HER DEVELOPMENT ON RADIO

Introduction

Part Two of the current research focuses on recordings made at the beginning of Martin’s Broadway and film career, and her regular radio appearances with Bing Crosby. These rarely heard recordings enable the examination of Martin’s voice at the very commencement of her career, before she consolidated the stage and vocal persona that she maintained until her death in 1990.

Chapter Four outlines the development of Martin’s vocal style and stage identity prior to the commencement of her brief movie career. Between 1938 and 1940, Martin’s on stage success enabled the launch of her recording and film career. An analysis of the singer’s voice during this period reveals a performer well aware of the nature and techniques of popular music, and willing to change her vocal style to appeal to a wide audience. The chapter commences with an examination of four of Martin’s recordings. These are delivered in a style known as swinging the classics (McGee 2009, 116), which juxtaposed jazz and classical performance styles and scaled the heights of popularity during the 1920s. Martin’s sophisticated understanding of the vocal requirements of both styles is evident in these materials.

Analysis of Martin’s recordings directly associated with her stage role in Cole Porter’s Leave it to Me reveals her developing legitimate voice, while her steadfast adherence to the classical style of singing is exposed in the film The Great Victor Herbert. The chapter concludes with an examination of Martin’s developing crooning technique in her 1940 recordings of Cole Porter songs. The stylistic characteristics of these tracks are outlined and the individual components of Martin’s emergent signature style are illustrated through selected spectrograms.

Chapter Five explores Martin’s little known NBC network radio appearances between 1938 and 1942. Particularly noteworthy are her regular performances on Maxwell House Good News prior to the United States’ entry into World War II, and on the Kraft Music Hall throughout the first year of America’s involvement in the war. Through the analysis of existing recordings, this section demonstrates the way in which Martin cultivated at least three different vocal styles, enabling her to adapt to a broad range of musical settings that were spurred on by technological advancements evident in the first
half of the twentieth century. Through consideration of the changes Martin made in her speaking and singing voice, the chapter closes with commentary upon the development of her public persona from unknown band singer to well-known starlet, further contextualising Martin’s leading role in the evolving manner of female vocalisation at the time.
CHAPTER FOUR: MARTIN’S EARLY RECORDINGS AND HER SEARCH FOR VOCAL IDENTITY

“From the time I was born I could hear notes, and reproduce them” (Martin 1977, 21)

Chapter Four centres on recordings made by Martin prior to her return to Hollywood. The research focusses firstly on four songs that were part of Martin’s nightclub repertoire sung in the popular mixed classical/swing crossover style before her success in *Let’s Take a Chance!* These recordings highlight her well-developed classical technique and emerging belt phonation. The narrative continues with an examination of Martin’s earliest recording of “My Heart Belongs to Daddy”. This was the song that first brought her to the attention of the Broadway audience and the earliest example of her evolving *legitimate* voice. The chapter then highlights Martin’s classical technique through an examination of her performance in the 1939 biopic film *The Great Victor Herbert*. Chapter Four concludes with a consideration of Martin’s emerging crooning technique in her 1940 recording of six songs written by Cole Porter.

The beginning of Martin’s public career reveals a performer already equipped with a range of vocal skills not seen within the abilities of performers such as those discussed in the previous chapters. This component of the research establishes a point of reference from which to measure the development of Martin’s integrated vocal style. Notably, it delineates her growing flexibility in moving between varieties of production styles and the adaption of her vocal technique to take best advantage of different performance environments.

Classical/Swing Crossover in Martin’s Early Recordings

Martin’s early years of vocal training provided her with a repertoire of popular soprano concert standards which highlighted her agile soprano voice, but did not sit well with the nightclub audiences who were expecting to hear the “low-downnest” songs from the band singer. Martin’s solution to the problem resulted in a series of adoptions which crossed the classical-popular divide in both directions, encapsulating the transition from *operettic* styles to the more accessible popular forms in progress throughout musical theatre at this time. Martin opened each song in its original form, using classical production techniques to place it firmly within the *operettic* style, before transitioning to swing style, taking advantage of her rich middle register. In her own words, she would “swing the be-daylights out of it. Just let them have it, trumpet noises coming from that refined soprano throat.” (Martin 1977, p 67)
Martin recorded five songs in this style for Decca over the 1938-9 Christmas/New Year period, just over a month after opening in Leave it to Me!. Accompanied by a young Woody Herman and His Orchestra, she gave the full “Charlie Bourne-Billy Hoffman-Mary Martin” treatment to “Il Bacio”, “Les Fille de Cadix”, “Who’ll Buy my Violets”, “Listen to the Mocking Bird” and “Deep Purple”. All of these songs were a popular part of the coloratura soprano concert repertoire, and were frequently recorded by performers such as Marietta Piccolomini, Adelina Patti, Frieda Hempel, Amelita Galli Curci and Claudia Muzio.

“Il Bacio” is a virtuosic waltz written in 1859 by the Italian composer and violinist Luigi Arditi (1822-1903). It was popular as an instrumental and vocal concert piece throughout the second half of the nineteenth century and well into the twentieth century, and was a popular choice for recording. Several recordings from the early 1900s survive, and its inclusion in the 1935 film Three Smart Girls, starring operatic prodigy Deanna Durbin is an example of its subsequent popularity. Three representative opening phrases from early acoustic recordings can be heard on CD track 4—1, recorded by Adelina Patti) in 1903, Alice Nielsen in 1908; and Frieda Hempel in 1914. These surviving pieces illustrate early-twentieth-century classical performance practice, featuring a fast tempo and the extensive use of rubato.

The song had a performance style featuring a strictly coloratura opening before changing into hot swing later in the piece. Table 4—1 shows a comparison of an original edition with Martin's performance, illustrating the basic structural changes made to the piece for her adaption. Martin performs the first 72 bars with virtually no alteration to the written score, until the rhythm changes from waltz time to swing time, and the accompaniment changes from light classical to upbeat jazz ensemble playing. Several sections are omitted, ensuring the song stays within the two to three minute length required by popular recording practices.

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205 Unfortunately I was unable to obtain Martin’s recording of “Deep Purple.” However, in her radio appearance on the Rudy Vallee Show on the 2 February 1939, she introduces the song in operettic style before continuing in swing style with early elements of belting, firmly placing it within the classical/swing crossover genre.

206 It is thought that Arditi wrote ‘Il Bacio’ for Patti and this recording was made very late in her career.

207 This has been well established by writers such as Robert Philip (1992), Timothy Day (2000), Daniel Leech-Wilkinson (2009), and Neal Peres da Costa (2012).
<table>
<thead>
<tr>
<th>Section (bar #) [new bar #]</th>
<th>Original</th>
<th>Martin</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (1-72)</td>
<td>$\frac{3}{4}$—C Major</td>
<td>$\frac{3}{4}$—C Major</td>
</tr>
<tr>
<td>II (73-89)</td>
<td>$\frac{3}{4}$—F Major</td>
<td>Omitted</td>
</tr>
<tr>
<td>III (90-104) [73-80]</td>
<td>$\frac{3}{4}$—F Major</td>
<td>$\frac{5}{4}$—F Major</td>
</tr>
<tr>
<td>IV (105-120)</td>
<td>Instrumental</td>
<td>Omitted</td>
</tr>
<tr>
<td>V (121-162)</td>
<td>$\frac{3}{4}$—B$b$ Major</td>
<td>Omitted</td>
</tr>
<tr>
<td>VI (163-178)</td>
<td>$\frac{3}{4}$—G Major</td>
<td>Omitted</td>
</tr>
<tr>
<td>VII (179-194) [81-88]</td>
<td>$\frac{3}{4}$—C Major</td>
<td>$\frac{5}{4}$—C Major (text change)$^{208}$</td>
</tr>
<tr>
<td>VIII (195-208)</td>
<td>$\frac{3}{4}$—C Major</td>
<td>Omitted</td>
</tr>
<tr>
<td>Coda (209-236) [89-107]</td>
<td>$\frac{3}{4}$—C Major</td>
<td>$\frac{5}{4}$—C Major</td>
</tr>
</tbody>
</table>

Table 4—1: Structural Comparison of original “Il Bacio” and Martin’s version of “Il Bacio”, indicating the sections omitted by Martin and time signature changes.$^{209}$

The new duple time signature gives Martin the freedom to play with different rhythm over the regular pulse. She provides a great deal of rhythmic colour by anticipating beats, syncopation and the use of triplets, and creates tension by straightening rhythms as the band swings them. The effect is one of vocal freedom, heightened by her...

$^{208}$ From “Se potessi dolce un bacio ti dareì” (If I could I would give you sweet kisses) to “Se potessi mille gaudii ti dareì” (If I could I would give you one thousand joys).

$^{209}$ The original melody corresponding to the shorter version and a transcription of Martin’s performance can be found in Music Examples 4—1 and 4—2 in Appendix B.
occasional use of scat\textsuperscript{210} syllables rather than an open vowel in bars 16-17 and bar 20. This small addition however, even more than the few changes of timbre, signals the song’s change from classical genre into jazz. Despite this, Martin performs most of the song in her head voice, with just a few changes to belt-style chest voice, and then only when the pitch is below C5.

The main phonation changes are found in the first two phrases of section III, bars 1-8 of the transcription, where Martin sings the first falling motif of each phrase in her head voice, and the second in a conversational chest voice. The end of this section is the first opportunity to observe Martin’s \textit{passaggio} between her chest and head phonation as she sings a scale from B3 to F5. Spectrogram 4—1 shows Martin beginning the scale in a light chest voice. As she moves up the scale the resonance of the tone shifts to the fundamental, but the change sounds awkward until Martin reaches A4, at which point it regains stability. On the final note she tunes the first and second formants of the vowel to the fundamental and the second partial to create a strong finish.

The transcription of bars 16-18 in Figure 4—1 shows the scat additions to the text, and Spectrogram 4—2 illustrates the contrast between Martin’s scat additions to the voice. The resonances of the first sustained tone sung in her chest voice are more characteristic of the speech values of the ‘a’ vowel sound. The relative amplitude of the second harmonic is 18 dB higher than the fundamental. This is consistent with the first formant tracking the second partial, and the second formant amplifying the third and fourth partials. It is also possible to see the third formant’s effect on the partials at the singer’s formant and above. Similarly, the much quieter sustained tone on the vowel ‘e’ is placed even closer to average speech values. When Martin changes to head voice, she tunes the first formant down to the fundamental and the second formant amplifying the

\[
\begin{align*}
\text{Coda} \\
\text{Lah-dle-ah-dle-ah} & \quad \text{Ra ta ta ti} & \quad \text{Ah!} & \quad \text{Ah!} \\
\end{align*}
\]

\textbf{Figure 4—1: Transcription of the passage in Spectrogram 4—2. See also CD track 4—3.}

\textsuperscript{210} Scat, the use of nonsense syllables with improvised melodies, was a relatively new phenomenon and was very popular with jazz musicians. During the 1930s it also became popular with swing musicians including Bing Crosby. J. Bradford Robinson. "Scat singing." \textit{Grove Music Online. Oxford Music Online.} Oxford University Press. Last accessed September 12, 2014http://www.oxfordmusiconline.com.virtual.anu.edu.au/subscriber/article/grove/music/24717.
second partial.

In contrast to the immediate onset of her classical phonation, the onset of Martin’s vibrato is delayed in the belt style, and her vibrato rate (5.5 Hz) is slower than the consistent 6.2 Hz of her head voice. The extent of her vibrato also alters during chest phonation, widening to almost a semitone from the relatively constant half a semitone of her head phonation. From these examples it is clear that Martin was able to fully employ her vocal range and skills to bring a modern touch to her classical music.

Martin perfected this technique in “Les Filles De Cadix”, a flirtatious bolero composed by Léo Delibes to words by Alfred de Musset, and one of the earliest coloratura soprano concert works recorded at the beginning of the twentieth-century. When Martin recorded her adaption at the end of 1938, the song was very much in the public consciousness, having been performed by Jeanette MacDonald\textsuperscript{211} in the 1937 film \textit{Maytime} and then by the sixteen-year-old Deanna Durbin\textsuperscript{212} in \textit{That Certain Age} (1938). CD track 4—4 presents the opening phrases of five different recordings by Amelita Galli-Curci,\textsuperscript{213} Claudia Muzio,\textsuperscript{214} Deanna Durbin, Jeanette MacDonald and Mary Martin (from her 1938 Decca recording). Excepting Mary Martin, all of these recordings are in F# minor and with similar tempos, although all employ a significant amount of rubato.

As the vocal techniques she employs in her classical/swing crossover performances require the use of a lower pitch to be successful, Martin performs in the published mezzo-soprano key of d minor. Her performance remains faithful to Delibes’ score, until the end of the first verse, where the time signature changed from three-four to \textit{alla breve}. At this point, the brassy, military-style fanfare vocalizing of the final phrase, shown at Figure 4—2 is replaced by the jazz trumpet-styled transition at Figure 4—3\textsuperscript{215}

The verse that follows mirrors the melodic contour of the original, but replaces the strict quaver rhythms, \textit{melismata}, trills and glissandos of the coloratura with the yodels, vocal gymnastics and the rhythmic freedom of swing style. Martin slows the expected

\textsuperscript{211} This recording is of MacDonald at her peak.
\textsuperscript{212} Durbin was only 16 when she recorded this song. Her young voice, although mature for her age, is obvious in its lack of support as she reaches her upper register.
\textsuperscript{213} This was taken from an original recording in the author’s collection, and was recorded between 1916 and 1923
\textsuperscript{214} This was recorded in 1935 for Columbia. Muzio’s top register was weakening and she did not attempt the top C# at the end of the second verse. She died from heart failure the following year.
\textsuperscript{215} These examples are shown in context in Music Examples 4—2 and 4—3 in Appendix B.
Figure 4—2: From the original Schirmer score military fan-fare rhythms. See also Music Example 4—2.

Figure 4—3: Martin’s transformation of the original rhythms to more contemporary jazz trumpet style. See also Spectrogram 4—2 and Music Example 4—3.

forward motion with intentionally straightened crotchets, before unexpectedly returning to a rhythm similar to that of the opening at bar 67.

As in “Il Bacio”, Martin remains in her head voice for most of the song, moving briefly into chest voice at the beginning of the swing section, and dramatic wailing, downward diminished sevenths at bars 80-86. Spectrogram 4—3 and its accompanying CD tracks illustrate the dramatic contrast to the classical style of the song, which, like the scat rhythms in “Il Bacio”, transforms her performance to swing. In the lower Spectrogram Martin descends in a smoothly controlled portamento, that barely interrupts her vibrato. The upper Spectrogram illustrates her dramatic rallentando, tightly controlled slide and sudden change to chest phonation at the same point of the second refrain. A slight break in the upperpartials indicates her sudden alteration of resonator shape that allows the change in timbre. As she moves up the scale in the concluding coda, Martin finishes in dramatic coloratura style over a swing accompaniment, reminding her audience of the classical origins of the work while anchoring it firmly to the present.

“La Violetera”, written by Spaniard Jose Padilla (1889-1960) with lyrics by Eduardo Montesinos, enchanted audiences throughout Europe and the United States with its exotic bolero rhythms and vocal embellishments. An English version by H. F. Best, bearing little relation to the original Spanish text, appeared in 1918, and further increased the song’s popularity in the United States. In 1923 E. Ray Goetz transposed
the melody down a semitone from the original A major, set a second English text, renamed the song “Who’ll Buy My Violets?” and interpolated it into the musical Little Miss Bluebeard where it was performed by his wife, Irene Bordoni. In 1931, the melody reached an even wider audience when it featured in Charlie Chaplin’s film City Lights. Transposed lower for band singers, it became a nightclub and dance band standard. In 1936, Tommy Dorsey recorded an up-tempo, swing version of the song in the original A Major. CD track 4—7 includes excerpts from recordings by Spanish film star Raquel Meller,216 Lucrezia Bori,217 from City Lights and an anonymous band singer.

Martin combined the original and 1923 versions to create a hybrid interpretation of the song. Sung in D Major, Martin performed both the verse and first refrain in the original Spanish and in a classical vocal style. The orchestra played the second refrain in swing style, Martin’s return in the third refrain featured the English words by Goetz, and was also swung.218 The final hot jazz coda has Martin sustaining a belted A4 above the accompaniment, transforming the song from light opera to swing and signalling Martin’s move away from the classical genres.

It is difficult to fully appreciate the changes Martin makes to this song through a simple examination of lyrics and rhythm. Although the song is a fifth lower than the original score, Martin remains in a rich head voice while singing in Spanish and makes little or no change to the rhythm. Spectrogram 4—4 shows the high relative amplitude of the first two partials as they are amplified by the lowered formant one and two. Martin changes to a low mixed voice for the third refrain, using a more classical phonation for sustained notes and a mix of chest and head voice for the shorter notes, shown in Figure 4—4.

The only other change in the third refrain is Martin’s use of swung duplets, which can be seen in Figure 4—5. Although she also increases rhythmic interest by interspersing straightened duplets within those alterations. Martin appears to move toward a more popular singing style for the English lyrics, but maintains a strong attachment to the classical style.

216 Decca Odeon-Parlophone 20619. Probably recorded in Europe in the 1920s but released later in the United States by Decca.
217 Victor records 1928.
218 See Appendix B, Music Example 4—5.
Figure 4—4: Example of Martin in the third refrain shows the high relative amplitude of the second partial and the increased resonance of the third and fourth partial as they are amplified by the lowered first and second formants.

Figure 4—5: A comparison of the first and third refrains interspersing straightened duplets within those alterations as Martin appears to move toward a more popular singing style. See also Spectrogram 4—4 and CD track 4—8.
The range of “Who'll Buy My Violets” is well within Martin’s developing belt phonation, but she only uses a strong belt in the final coda. Although this note is the same pitch as the example of her head voice in Spectrogram 4—4 the differences are readily apparent. Martin vibrato onset is slightly delayed in the second example, with a narrower extent, and the resonant structure of the tone is markedly different to that seen in the previous Spectrogram (see Spectrogram 4—5). The first formant is now amplifying the second partial (see Figure 4—6), and the increased resonance of the upper partials adds a bright edge to the sound that is in direct contrast to the rest of the song, which has a much rounder, darker tone.

The change to Martin’s treatment of “Who’ll Buy My Violets?” added a new twist to the performance of the songs in the classical-swing crossover style. Both “Il Bacio” and “Les Filles des Cadix” were transplanted directly from the established light classical concert repertoire, with jazz rhythms and vocal treatments being added once the classical roots of the song were firmly established and Martin ending them by returning to the classical style. In contrast, “Who’ll Buy My Violets?” had already been widely adapted to more popular tastes and Martin takes advantage this familiarity, remoulding the song to suit her own reading of the classical-swing style.

![Power spectrum of Martin using belt phonation in the final coda of the same pitch as the example of her head voice. The second partial is strongly amplified by the first formant, its relative amplitude more than 20 dB higher than the fundamental. See also Spectrogram 4—5 and CD track 4—9.](image)

Figure 4—6: Power spectrum of Martin using belt phonation in the final coda of the same pitch as the example of her head voice. The second partial is strongly amplified by the first formant, its relative amplitude more than 20 dB higher than the fundamental. See also Spectrogram 4—5 and CD track 4—9.
Composed in the mid-nineteenth century, “Listen to the Mocking Bird” became one of the most popular ballads of the time, selling over twenty million sheet music copies. Used as a marching song by both sides during the American Civil War; it became a standard in the theatres, albeit with an enormous variation in performance styles. It was particularly popular with specialty acts, and hillbilly bands, whistlers, romantic duets, black face minstrels, xylophones and banjos all played a part in its wide spread popularity. The song itself is a contradiction in that its tragic lyrics are juxtaposed against a lively melody. The verse has a gently lilting melody, characterised by rising thirds and fourths, and the refrain consists of rapid, repeated notes; all facets reminiscent of the different components of the mockingbird’s call. Simple dominant-tonic harmony underpins both the verse and refrain, creating a comfortable forward motion. This is broken as the melody reaches its climax at the end of each phrase with the sudden addition of the subdominant, a change also characteristic of the mockingbird.

Well-known opera soloists teamed with bird imitators to record the song. Alma Gluck, the first classical musician to sell one million copies of a recording, performed it with early conservationist and bird imitator Charles Kellogg in 1916. Alice Green and Raymond Dixon recorded a romantic duet in 1923 with interpolations by Uintah Masterman. In 1921, soprano Marie Tiffany recorded the song with interpolations by Margaret McKee and the accompaniment of a close male chorus (see CD track 4—10).

Martin performs the song in conversation with solo flute. Her version includes a series of variations based on the refrain, and includes an abundance of coloratura runs and trills. Rather than relying on the interpolation of bird calls, Martin utilises her vocal skill to develop the song’s relationship to the mockingbird. The first verse begins in a quietly genteel manner, with a sustained accompaniment of low horns and the

\[\text{Music by Afro-American guitarist Richard Milburn and lyrics by Septimus Winner (under the pseudonym Alice Hawthorne).}\]

\[\text{Charles Kellogg was a well-known bird imitator who travelled the US in a mobile home constructed out of a hollowed out redwood tree.}\]

\[\text{Victor 19250-A}\]

\[\text{Brunswick’s New Hall of Fame Classic Series 13090-A. Maria Tiffany was a member of the Metropolitan Opera whose husband of over twenty years famously divorced her on the grounds of desertion, saying he still loved his wife, but “talent belongs to the public. New York is the art centre. Her art is her life. I would not stand in her way.” (The New York Times April 13, 1922).}\]
interjections of the flute. After only eight bars, there comes a dramatic rallentando, and the band crescendos into a jazz bridge. This leads into Martin’s first swung refrain; over a steady walking bass, this time with interjections from both the band and the flute. Although pitched a fourth lower than the original key of G Major, the first refrain is similar to the original. The primary changes are the inclusion of swung triplets, which create a more relaxed sound in comparison to the earlier recordings and her other more speech-like delivery.

Martin moves on to a series of variations in which she gradually shifts further from the original style of the piece. In a style similar to jazz improvisation, the melodic and rhythmic material continually evolves, before Martin abandons the text altogether and sustains a F5# above the instrumental refrain. The quiet accompaniment of percussion and bass in the final variation (a virtuosic, imitative duet with the flute) retains the swing style, before the dramatic coda re-establishes the text. “Listen to the Mocking Bird” is Martin’s most integrated recording in the classical-swing crossover genre. It moves seamlessly through ballad, swing and coloratura styles, giving the audience a glimpse of the versatility of Martin’s voice.

This small group of recordings represents Martin’s earliest repertoire and is the main body of songs that she used prior to moving to New York. Her constant searching for the magical ingredients of vocal success gave her the capability to move between different styles, but it was these classical/croon crossover pieces that established her profile. Martin maintained the performance pitch of most of the songs – which are formulaic and do not depart very far from their origins. Their range, tessitura and point tessitura are very high in comparison to most popular songs at the time. The exception in this case, as indeed it is within the Martin’s larger opus, is “Who’ll Buy My Violets”.

Introducing Martin’s Legitimate Voice in Cole Porter’s Leave it to Me!

“Sweet, swinging “Il Bacio” took me to Broadway, but it was Cole Porter’s “My Heart Belongs to Daddy” that kept me there” (Martin 1977, 69)

This section examines Martin’s debut performance in Cole Porter’s Leave it to Me!, its role in her initial success on the Broadway stage and the establishment of her early

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223 See Music Example 4—6 bars 1-8.
224 See Figure 4—7.
public theatre persona and vocal style. Martin used a very different vocal delivery in this show to the operettic/nightclub styles she had employed in her classical/swing crossover repertoire, choosing instead to develop her mixed chest and head voice. This not only affected the sound of her voice, but also the development of her public persona.

*Leave it to Me!* opened at the Imperial Theatre on 9 November 1938 starring comedic actors Bill Gaxton and Victor Moore, vaudeville veteran Sophie Tucker and exotic Russian singer Tamara Drasin. Bella and Samuel Spewack wrote the book for this spoof on communism and U.S. diplomacy, loosely based on their play *Clear All Wires* (also a 1933 MGM film). The plot is appropriately farcical and designed to highlight the not inconsiderable talents of its four stars. *The New York Daily News* (10 November 1938) rather disparagingly described it as “not a roaring hit,” but thought that “it would linger,” and (in an extraordinary understatement) opined that the audience “liked Mary.”

225 Unassuming bathtub manufacturer, Alonzo P. ‘Stinky’ Goodhue, has been unwillingly appointed U.S. Ambassador to Russia. The envious publisher of the Paris and Chicago World-Tribune has ordered his best correspondent (Buckley Thomas) to see that Goodhue is disgraced and recalled. As Stinky himself is anxious to be shipped home he and Thomas join forces. Goodhue delivers an antagonistic speech, kicks the German Ambassador, and attempts to assassinate a Prince — but in each case he is proclaimed a hero. Thomas, finally realising that only good deeds go unrewarded, has Goodhue deliver an optimistic speech expressing hope for a unified world. Goodhue is promptly recalled.
Martin appeared in the small supporting role of Dolly Winslow and her performance comprised a risqué song full of double entendre – much of which Martin claimed to not understand – while dancing a demure strip-tease on a Siberian railway station. Her performance stopped the show and made her an overnight sensation. Critics were unanimous in their praise. Women’s Wear Daily declared her “a find”, The Daily Worker was convinced her name was “surely destined for lights”, the New York Sun identified her as “impertinently lyrical” and the critic of the New York World-Telegram announced that she had “the freshness and vitality of youth [and the] poise and the gift of devilish humour.”

In November 1938, Martin was an unknown singer with minor billing. A month later, Life was photographing her for a magazine cover, and by February 1939 she received feature billing (Green 1971, 350). So popular was “My Heart Belongs to Daddy” that it immediately became (and remained) Martin’s signature song, even after the success of South Pacific, Annie Get Your Gun, Peter Pan and The Sound of Music. As noted by Stacy Wolf “Martin’s sexiness got her noticed, but her innocence made her a Broadway star” (Wolf 2002, p 47).

“My Heart Belongs to Daddy”

I recorded ‘Daddy’ many times, in many different versions. The first was with Eddy Duchin’s orchestra in the key I had used onstage. That recording is very high, sweet, the way I sang it then. Over the years, versions changed. I even made one sort of low-down, but I never sang it raunchy (Martin 1977, 85).

Three songs in Leave it to Me! were associated with Martin. “When All Is Said and Done”, a patter song performed in the first half of the show by Martin and William Gaxton but never recorded, “Most Gentlemen Don’t Like Love”, a very risqué song recorded by Martin but performed in the show by Sophie Tucker, and “My Heart Belongs to Daddy”. Martin presented this song while performing a slow strip-tease from fur coat to silk underwear, supported by several Eskimos. Although it would seem impossible to simultaneously strip, sing “My Heart Belongs to Daddy” and still be seen as naïve, it is a reflection of both the time and Martin’s skills that she could perform this

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226 An incorrigible flirt who is both Goodhue’s mistress, Thomas’ girlfriend.
227 These reviews appeared between 10 and 14 November 1938 in a wide range of daily newspapers each with different audiences: the fashion industry including designers, retailers and manufacturers (Women’s Wear Daily), left and right wing thinkers (The Daily Worker and The New York Sun), and the daily broadsheets (New York World-Telegram). Events on Broadway were of interest to the entire community.
228 The only copy of this song is a copyist’s version and a Porter holograph sketch held as part of the Cole Porter Collection in the Irving S Gilmore Music Library at Yale University.
song while maintaining the ingenuousness of her public persona.

Martin’s persona as an innocent, small town girl with a lovely voice was reinforced in interviews and frequent public appearances. An interesting example is her February 1939 interview on The Rudy Vallee Show.229 During this interview, Martin uses a childlike voice with just a touch of Texan twang. She sounds breathlessly innocent and appears to hang on his every word, hardly the woman who recorded the dynamic swing/classical crossover songs previously discussed.

Martin first recorded “My Heart Belongs to Daddy” in December 1930. Although the lyrics meant that it could not be played on air, the song quickly reached number nine on the billboard charts. This was the only time Martin recorded the song in the same key as she performed it onstage,230 and this recording provides an opportunity explore her developing middle register. The performance style was marked as ‘Slowly, a la Harlem’ in a ‘Slow Rhumba tempo.’ The rhythm featured anticipatory syncopation, giving the piece a great deal of forward rhythmic momentum. However, Martin smoothed many of the syncopated rhythms, especially in the opening verse (bars 1-12),231 and replaced a number of the dotted rhythms with triplet figures (bars 21-22). These changes, in addition to the heavy in the bass accompaniment, these changes slow the melodic movement, and the performance a languid feel. This in turn holds the attention of listeners and gives the impression of lingering over delicious thoughts (bars 25 and 51).

The vocal range of “My Heart Belongs to Daddy” (A3-D5) is considerably narrower than that of her classical/swing recordings,232 and its tessitura (E4—B4) falls within Martin’s middle register. This allows her to use a mixed registration throughout the song, and the increased resonance of the upper partials adds a bright edge to the sound. The result is a harder, brighter tone that is in direct contrast to the richer head voice of the previous example. Martin’s manipulation of her mixed register can be seen in Spectrogram 4—6. At the word “tell”, Martin tunes the first formant to the second partial, and the increased resonance of the fourth partial suggests that it has been amplified by the lowered second formant.

229 The Library of Congress has extensive holdings of these radio broadcasts.
230 This recording is a minor third lower than the published score, all her subsequent recordings were recorded up to a fourth lower.
231 The written transcription can be found in Appendix B.
232 With the obvious exception of “Who’ll Buy My Violets.
As the melodic motif moves up a step in the next part of the phrase, the pitch of the ensuing sustained note is a tone higher, although it uses the same vowel. This appears to be coming close to Martin’s break between registers and she introduces a little more head voice to compensate for the higher pitch. Figure 4—8 illustrates the increased resonance of the fundamental at the higher pitch, resulting in a slight change in timbre to a more covered sound than that of the lower pitch. Unlike the classical/swing crossover songs in which Martin only used occasional instances of chest phonation, the reverse is true in “My Heart Belongs to Daddy”. Martin pushes her mixed voice up in the last refrain, using the same style as in her recording of “Most Gentlemen Don’t Like Love”. This song was originally performed by Sophie Tucker, renowned for her sexually suggestive songs and strident “coon shout” voice. Martin, choosing not to imitate the vocal style of the more famous cast member, demarcated her own unique vocal style.

Flirting with Operetta in the film *The Great Victor Herbert*

Despite her misgivings about Hollywood, Martin auditioned for Paramount Pictures after talent scout Arthur Jacobson heard her perform “Il Bacio” at the Rainbow.
Paramount was casting for a new musical based on the works of operetta composer Victor Herbert. They were only interested in hearing Martin’s “high voice.” Martin arrived at the audition in her “Daddy” outfit, but was not permitted to perform her signature number so, instead, she performed Verdi’s aria ‘Caro Nome’ while taking off her clothes. Paramount offered her a contract and she was cast in The Great Victor Herbert opposite heartthrob tenor Allan Jones.

Martin’s role was that of a hometown girl with a high, but not particularly good, voice (Davis 2008 p49). Paramount was concerned that Martin’s voice was too good for the film, and Jule Styne was borrowed from Twentieth-century Fox to devise a suitable singing style. The strategy succeeded. Although reviewers agreed that it was an “auspicious premiere” and that Martin looked “delectable”, they were not in agreement regarding the quality of her voice. The Daily Worker (7 December 1939) considered that “the use of her voice in such operettas [was] open to criticism,” and the critic in the Richmond (VA) News Leader (8 January 1940) wrote that she “sings and acts enchantingly.” Martin mostly sang in the first half of the story, with soprano Susanna Foster (whom Martin considered to be “the one who had the great voice”) performed the more challenging music in the second part of the film. Figure 4—9 shows Martin in costume for the film.

Not only was she visually distanced from her previous role she also distinguished herself vocally from Dolly Winslow by singing in her lyric soprano voice for the entire film. In The Great Victor Herbert, Martin performed solos and duets with Allan Jones in a contemporary operettic style.

Martin’s use of her soprano voice across three different songs styles in this film reveals a woman at home in the classical style. Spectrogram 4—7 shows an eight-second excerpt from a duet between Jones and Martin “Ah Sweet Mystery of Life”, accompanied by orchestra and chorus. Although it is an extremely busy Spectrogram, it is easy to identify Martin’s voice. Martin sustains F5# for approximately half of the segment, with Jones pausing during this time, enabling the harmonic structure of Martin’s tone to be clearly seen. The relative amplitude of the fundamental dominates

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233 Martin had performed one show a night at the club at the top of the Rockefeller Centre since January 1939, singing a wide range of music from arias to blues.
234 Jule Styne was a prolific composer who later worked with Martin on Peter Pan.
Figure 4—9: Mary Martin dressed in ruffles and hoops for *The Great Victor Herbert*

all of other sounds and is at least 20dB greater than that of any of the other partials (see Figure 4—10). Martin’s vibrato is illustrated at Figure 4—11, which shows a constant rate of 6.1Hz and an extent of 59 cents – conforming to the vibrato of classically trained singers of the period (Ferrante 2011, 1686-7).

![Figure 4—10: Martins F5# from “Oh Sweet Mystery of Life” showing the high relative amplitude of the fundamental. See also Spectrogram 4—7 and CD track 4—12.](image)
Figure 4—11: Martin’s *vibrato* extracted from spectrograph 4—7.

The same resonance pattern is seen in Spectrogram 4—8 during the rather less dramatic “There Once Was an Owl”. This tone is a fifth lower than the previous example, and is in the same area of the *passagio* between her low and high head voice as the example at Figure 4—8. Martin’s *vibrato rate* is slightly slower (5.9) and wider (over a semitone) than in the previous example, and there is a marked narrowing of the *extent* as the vowel shape changes from “a” to “e”. It stabilises immediately, but this change indicates the extra control Martin needs to exercise in this part of her range.

The third example is taken from “A Kiss in the Dark”, originally sung by Edith Day in *Orange Blossoms* almost twenty years earlier. Unlike the previous songs, which Martin sang at the original pitch, this song was transposed down a fourth for the film. Whether to highlight the intimacy of the song (given the increasing popularity of the croon) or to showcase Martin’s lower register, she maintained the character’s light lyric sound, rather than the richer timbre produced in her own classical style (see Spectrograph 4—9). Martin’s *vibrato* in this instance appears affected by what seems to be overly relaxed production. Unlike other examples of her classical phonation where the *vibrato* onset is immediate, in this example it is delayed and the wave shape is flattened and uneven, destabilising the fundamental pitch of the tone (see Figure 4—12).

The choice of *The Great Victor Herbert* was a fortunate one, as it allowed a transition for Martin to a more sophisticated and adult persona, although she continued to keep her “small town girl” appeal.
The Beginning of Martin the Crooner

In early 1940, Martin recorded six Cole Porter songs with Ray Sinatra and his Orchestra. In contrast with her stage and screen persona, these studio recordings are low, slow and intimate, and she performs in her “low down” voice, a vocal style dependent on microphone technology and closely related to the new crooning style introduced by Bing Crosby. Figure 4—13 shows that the range and tessitura of these songs are much lower than her previous recordings, from as low as F3 and only as high as D5. Their tessitura varies considerably, but the point tessitura of most of the songs remains within a tone, sometimes falling at upper end of the tessitura pitch range. This could indicate that Martin is spending more time on the higher pitches, so as not to over tax her developing lower register.

All of the songs are very closely recorded, and Martin’s breath, lip and tongue sounds are often audible. Martin is very relaxed in all of the recordings, and their tessituras falls into the most comfortable and flexible part of her vocal range. She creates very long vocal lines and the melodies are very legato - even the up-tempo numbers have extended lines, making the six songs sound very similar. “Katie Went to Haiti” is one of the faster tempo numbers, with the lowest tessitura and point tessitura of all the songs. An Ethel Merman number normally sung loudly and suggestively, Martin’s version is performed at a similar tempo, but is far more legato. Despite the strong rhythm, Martin’s voice is low, restrained and intense — a far darker, sexier voice demanding the attention of its listeners.
“Let’s Do It” is the only recording in which Martin uses a semi classical sound, evident in the rolled “r”s in the phrase “sing: spring, spring”—a passing reference to her recent movie. She then moves from her head voice into a comfortable chest register for the refrain, just as she does in the other songs in the collection. Martin’s diction in this relaxed style is very clear and allows her plenty of latitude to play with the pronunciation of some of the words “oyshters, down in Oyshter Bay” which, when combined with crooning mordents and *rubato* rhythm, enhances the conversational tone of the song.

Throughout the song, the low register and wide range (F3-B4) poses the singer no vocal challenge—in many parts of the song, only the consonants and sibilants register on Spectrogram 4—10. This may indicate that the sustained nature of the sound is an aural illusion and that the non-vocal sounds that do not register on the spectrograph as a partial (e.g. breath) bind the words together. Martin easily supports her chest voice up to the B4 required at the song’s climax, finishing in her *legitimate* voice. While Spectrogram 4—11 indicates that she is singing quite loudly (or at least the microphone is very close), the resonance structure is identical to that of the spoken vowel and the tone lacks the overwhelming resonance seen in her belt phonation.
“My Heart Belongs to Daddy” is also given this crooning transformation, including a considerable lowering of the performance pitch and the further narrowing of the vocal range. So too is Merman’s “I Get a Kick Out of You” which loses its unique triplet rhythm in Martin’s version. “What is This Thing Called Love?” has the highest range and tessitura of the six songs, but still retains the feeling of a languid croon. The melody falls at the end of the song instead of rising to the final note (as it does in other recordings), also adding to the languid sound.

This collection of six songs lacks the dynamism of Martin’s earlier recordings, but shows evidence of the continuing development of her emerging legitimate voice. The compilation gives the impression that Martin was experimenting with a familiar, but not so practised singing style, preventing the creation of stylistic contrast within songs. Martin learnt this lesson performing live on radio—the medium through which she actively established her reputation as a versatile and flexible performer.

In ascertaining the acoustic characteristics of Martin’s vocal style at the start of her career on Broadway and in Hollywood, she is revealed as using contrasting vocal techniques and role characterisations in different performance settings reflecting the dominant female vocal types of American musical theatre at the time. The establishment of this benchmark is essential in the assessment of Martin’s ability to integrate dissimilar vocal styles and to adapt to technological advancements as they occurred. The following chapter examines Martin’s refinement of her vocal techniques and audience rapport through her regular appearances on NBC Radio between 1938 and 1942.
CHAPTER 5: MARY MARTIN’S APPRENTICESHIP ON NBC RADIO

Today the hobby of radio is to be found in the enjoyment of its program. Certain entertainers come to be intimately known as the result of their frequent reception. People look forward to certain features week after week. (Goldsmith and Lescarboua 1930, 312)

This chapter examines Martin’s semi regular broadcasts on the NBC radio network from 1938 to 1940, and her weekly airings during 1942. The development of her vocal technique is evaluated acoustically using contemporaneous recordings of the broadcasts, and the advancement of Martin’s skills is contextualised through discussion of her growing rapport with co-stars, and with live and remote audiences. The chapter assesses her early attempts at using the croon, popular and belt methods before she became more widely known through film appearances in 1941. A detailed discussion of the evolution of those vocal techniques during her regular periods as the co-host of the Kraft Music Hall throughout 1942 concludes the chapter.

Viewed within the framework of her radio presentations, Martin’s blossoming profile as a public personality, at ease in performance contexts employing discrete vocal styles, becomes evident. The singer’s experience on national radio represents a critical point in the development of her adaptable, integrated vocal style—the intensity of the intimate performance setting and the breadth of the repertoire creating a hothouse environment for progression. Here the research provides a clear window into Martin’s ability to evolve in response to the instant demands of live, semi-scripted performance.

Despite their position as an important proving ground for her development, researchers and biographers have virtually ignored Martin’s radio experience. Martin herself glosses over them in her autobiography (Martin 1977, 87), referring only obliquely to her involvement with Crosby on radio when describing another of her life’s circles. One biographer briefly mentions Martin’s Hollywood radio performances, but erroneously notes that she made the appearances during the filming of Rhythm on the River (1940) (Davis 2008, 58). Another author lists a selection of her presentations as a series regular in Kraft Music Hour during 1942, but accords them little attention (Rivadue 1991, 6).
1938-1940: Maxwell House Good News Radio Before and After “Daddy”.

Martin had participated in regular local radio broadcasts from the Crazy Water Hotel in Mineral Springs, Texas, developing a regional following as the “Crazy Girl” Mary Hagman. Upon her relocation to Los Angeles in 1936, Martin began an intensive two-year audition period (see Chapter One) during which she performed regularly with David Broekman and his Orchestra in Gateway to Hollywood (Don Lee Network) and subsequently on the NBC network as the “Singer of a Thousand Love Songs” for five minutes every evening (Martin 1977, 58-9).

The earliest transcription recording of Martin discovered to date is her January 1937 appearance as a band singer with Buddy Rogers and his Orchestra on NBC’s Blue Network show, The Twin Stars Program. Martin (who was not credited at the program’s opening) sang two songs from recent movies. The first, “I’ve Got You Under My Skin”, written by Cole Porter for Born to Dance and Burke and Johnston’s “And So Do I”, sung by Bing Crosby in Pennies from Heaven (1936). Martin performed both songs in the crooning style associated with Bing Crosby, singing very low in her register and affecting a mature but undeveloped, sound. This engagement was supported by Buddy Roger’s fiancée Mary Pickford, and led to a thirteen-week spell on Roger’s radio show as a summer replacement vocalist.

In February 1938, Martin returned to NBC to sing with Frank Hodark and his Orchestra. This time her prior success at the Trocadero Club and contract with Lawrence Schwab ensured an opening introduction as Mary Martin, “a Hollywood singer”, and she sang a medley of four dance songs. She sang the first three songs, “I’m in a Dancing Mood”, “Dancing in the Dark”, and “Oh How You Captivated Me” in a dark, slow crooning style, remaining in her head voice throughout. This resulted in a somewhat flat and only partially controlled sound. The final song of the medley, “I’m in the Mood for Love”, is written at a higher pitch than the first three songs and enables Martin to use her agile, operatic vocal style. It is clear that Martin is more

235 A vocalist available to sing one or two refrains of songs arranged for that particular band.
236 Born to Dance was released in 1936 and starred Eleanor Powell and James Stewart.
237 “I’m in a Dancing Mood” was written in 1936 by Al Goodman, Al Hoffman and Maurice Sigler.
238 “Dancing in the Dark” was written in 1931 by Howards Dietz and Arthur Schwartz. Martin recorded this song in 1950, at the height of her career.
239 Unfortunately, extensive searches failed to uncover the provenance of “Oh How You Captivated Me.”
240 “I’m in the Mood for Love,” was written in 1935 by Jimmy McHugh and Dorothy Fields.
comfortable singing in this style - her voice appears more controlled and relaxed, with more accurate intonation.

Martin’s final performance on this program—the refrain of “Can’t I”\(^{241}\)—is also a bright, up-tempo song. The orchestra performs at a spirited pace, but the tempo of the sung refrain is slowed considerably, so Martin can use the low crooning style preferred by the band. With the exception of “I’m in the Mood for Love”, there is little in Martin’s performance to differentiate her from the large number of semi-anonymous band singers who were also performing popular songs in the new crooning style.

Four months later, Martin appeared on *Good News of 1938*. This was a high budget radio show that marked the first significant collaboration between a film studio (MGM) and a radio network (NBC), on behalf of a commercial sponsor (Maxwell House Coffee). *Good News* ran for three years, hosted by various MGM actors such as James Stewart, Robert Taylor, Robert Young and finally Dick Powell. The weekly live broadcast featured promotional performances, including scenes from movies by MGM stars, interviews with cast members and musical numbers. Martin first appeared on the show on 2 June 1938,\(^{242}\) making such an impression that she returned as a guest for the following two weeks. In these subsequent appearances, the difference between appearing as a guest and performing as a band singer was made abundantly clear. For these appearances, Martin was announced by name at the beginning of the program and participated in introductory byplay with the show’s presenters, Robert Taylor and Robert Young.

The transcription recordings of Martin’s appearances on 9 and 16 June 1938 also provide the earliest examples of her speaking voice and reveal a light, melodic tone with moderate pitch modulation and a gentle southern accent.\(^{243}\) Spectrogram 5—1 demonstrates the smoothness of the pitch modulations within individual words, and clearly shows the carefully formed vowels that added clarity to Martin’s speaking voice. Her voice gives the impression of a wide-eyed, innocent, young woman, an impression curiously at odds with the picture painted by her earlier radio performances as a crooning band singer and her performance of “Serenade in the Night” on 9 June.

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\(^{241}\) Written by Irving Kahal and Sammy Fain for the show *Right This Way*, which had opened (and closed) just weeks before this broadcast.

\(^{242}\) Unfortunately no transcription of this program has been discovered to date and what she may have sung is unknown.

\(^{243}\) See CD Track 5—1
An unsteady beginning: “Serenade in the Night”.

In 1937, lyricist Jimmy Kennedy adapted “Violino Tzigano”—a canzone tango written for the 1934 movie Melodramma,\(^{244}\)—for the popular American market.\(^{245}\) The song had been a recent hit for jazz singer Connie Boswell, whom Martin later replaced in both Maxwell House Good News (1940) and Kraft Music Hall (1942). Although Martin performed the song\(^ {246}\) in the same key as Boswell (Ab Major), the differences in the experience and vocal maturity of the two women was apparent. Boswell performed firmly in the centre of her vocal range, predominantly in the light chest voice adopted by many jazz singers. She used a rapid vibrato and a languid rubato approach to the rhythm until the second refrain, which she performed in an upbeat, rhythmic swing time. Martin attempts to emulate Boswell, but only serves to highlight her vocal immaturity and the struggle to integrate opposing vocal styles.

Martin affects a crooning style in the first refrain, but remains in her head voice throughout, even though the nadir pitch (A3) is obviously lower than optimal for her in that phonation. Like Helen Morgan, she is unable to maintain comfortable control of her vocal production at this pitch. Her voice sounds forced and uncomfortable, and the compressed vibrato demonstrates the extent of Martin’s vocal tension at the beginning of the song (see Spectrogram 5—2).

Although the opening pitch is well prepared, and the vowel fully voiced, the fundamental shows no evidence of vibrato. All that can be heard is a tight shudder in the voice as the “ser” is forced out.\(^ {247}\) The pitch of the first note is almost a semitone flat, a common issue in inexperienced singers singing below their optimal register, when the knowledge that a note is extremely low can result in an over shooting of the pitch. Spectrogram 5—2 demonstrates Martin over compensating by singing the next note sharp, also without vibrato, before arriving at the centre of the G4 that completes the opening motif. It is only after voicing this G4 that Martin’s vocal tension eases sufficiently to allow her to form a discernible vibrato. She remains under the note, but the intervals she sings are more accurate.

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\(^ {244}\) Written by C. A. Bixio and Bruno Cherubini.

\(^ {245}\) Kennedy also wrote the lyrics for songs such as “Red Sails in the Sunset,” “We’re Going to Hang out the Washing on the Siegfried Line,” “Istanbul, not Constantinople,” “Teddy Bear’s Picnic” and many others.

\(^ {246}\) A transcription of Martin’s 1938 performance is at Music Example 5—1 in Appendix B.

\(^ {247}\) VoceVista 3.3 was unable to plot any vibrato at all on the first two notes and “heard” the first note an octave lower than it was sung.
Figure 5—1: Opening phrase of “Serenade in the Night” with pitch alterations indicating Martin’s incomplete vocal control at low pitch. See also Spectrogram 5—2 and CD Track 5—2.

At the end of the second phrase (bars 7-8), Martin’s lack of vocal agility results in an ungainly, vocal slide from B3 to C4 that begins the word “go”. The resulting hoot precludes the onset of vibrato until the pitch settles at the centre of the C4. Here she over compensates with a ragged vibrato (shown at Spectrogram 5—2), which grows rapidly wider and faster until it reaches a width of almost a major third. Due to this combination of vowel shape, vocal tension and extreme vibrato width, the note (which is correct) sounds insecure and out-of-tune. This would not be as noticeable in a live performance over the noise of a nightclub, but is quite apparent in the intimacy of radio and therefore detracts from her performance. It is a further indication of Martin’s inexperience in this intimate performance environment and vocal style.

Martin’s vocal tension appears to ease in A1 at bars 9-16, as a slight vibrato appears and her pitch becomes more accurate. Spectrogram 5—3 shows her smooth legato production, centred pitch and relaxed and uniform vibrato. It is also possible to see a narrowing of her vibrato extent as she prepares to sing the mordent connecting the words “serenade” and “in” (see Figure 5—2). She returns smoothly to the original vibrato extent before the glissando down to the word “in”, barely interrupting the flow of the melody. Nevertheless, Figure 5—3 shows a ragged vibrato and unstable pitch throughout the nadir note (A3♭ in the middle of the phrase). The pitch flattens throughout the length of the note and the minimum pitch of her vibrato falls as far as 185Hz (G3♭). More importantly, the average pitch of Martin’s note is closer to G3 than A3♭, while the accompanying clarinet plays the same note (A3♭) at concert pitch.

Martin demonstrates more confidence and control at the beginning of the second refrain, moving effortlessly into the up-tempo swing section at bar 39. The orchestra’s soft playing did little to disguise Martin’s pitch and vocal control issues in the slow first refrain, but the loud brass accompaniment in the second refrain overwhelms Martin’s voice almost entirely. The density of the orchestral sound merging with her voice is
Figure 5—2: Martin’s vibrato on the vowel [o] in “Serenade in the Night”, illustrating the rapid increase in width of her vibrato. See also Spectrogram 5—3 and CD track 5—3.

Figure 5—3: Martin’s vibrato on the word “sky” in “Serenade in the Night” demonstrating a ragged vibrato and falling pitch. See also Spectrogram 5—3 and CD Track 5—3.

obvious in Spectrogram 5—4 and is almost certainly due to a combination of inexperience, lack of vocal control, limited rehearsal time and performance nerves. This is particularly apparent in bars 46 to 52, when Martin’s entrances appear tentative.
and lost (see also CD track 5—4). Even when she returns to her middle register on “why” (bar 56) the note is flat and only just heard over the orchestra’s rhythmic brass. As Martin struggles to sing above the orchestra and maintain control of her rhythm, her pitch continues to flatten, her vibrato begins to disappear, and her vowels become more difficult to understand. In the final bars of the song, the orchestration returns to muted strings and Martin returns to using her head voice, but the sound is dark and exhausted.

These issues mark Martin as an inexperienced performer in a new environment. That they were not as obvious in the earlier radio transcriptions points to the likelihood that, since Martin was no longer “just a band singer”, she was nervous and unfocused. It is also possible that the conductor increased the orchestra’s volume, in an effort to mitigate Martin’s perceived pitch problems. Aesthetically, the sound of the lower notes in this song detracts considerably from the overall effect. The level of energy required to produce these notes had a deleterious effect on Martin’s upper register production, with vocal fatigue causing her to approach higher notes from below and to remain under their central pitch. The entire song sounds low in her voice, although the tessitura (E4–A4) is considerably higher, and the range (A3–B4) narrower, than her later croon songs. Given the quality of her voice in this performance, it is difficult to understand why the show’s listeners, or indeed its Robert Taylor, praised her so highly prior to her final performance the following week.

On firmer footing: “Hometown”.

We’ve never had a girl on this program catch on faster with the Maxwell House audience than Mary Martin has, and, confidentially, I don’t blame them (Robert Taylor 16 June 1938).

Martin’s return to the program, revealed a remarkably different performer. In this program, she sang the popular song “Hometown”,248 made famous by British comic duo Flanagan and Allen. Although the song first made its appearance on the British stage, the version performed by Martin is replete with American imagery and popular culture references.249 Martin built on these images by performing the song in a very relaxed, natural vocal style. She sang in the lower middle section of her head voice, but moved

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248 Written by Michael Carr and Jimmy Kennedy.
249 “Hometown” was featured in the musical London Rhapsody (1937), but referred to “corny country cousins” in a “Hometown” where “that Eadie was a Lady,” a reference to a song written for Ethel Merman in Take a Chance (1932). The added imagery of cotton fields and watermelons removes the song completely from its British roots.
into a very light head voice on the upper pitches—a vocal delivery that best reflected the image created by her speaking voice. The hillbilly-style performance was perfect for her light Texan accent, and the added lyrics further strengthened her “down home” appeal.250

Martin performs the song with an accompanying barbershop-style male chorus, and replaces the original verse with the first two lines of an early-nineteenth-century poem by Samuel Woodworth, “Old Oaken Bucket”. This poem, set to the tune of *Araby’s Daughter*, 251 had appeared in American hymnals and school songbooks, since the mid-nineteenth-century, and was familiar to many Americans. The use of the tune identified Martin as one of the community of the faithful (in contrast to the hedonistic musical theatre community) and was potentially the first glimmer of Mary Martin as America’s everywoman.

In keeping with the spiritual nature of the opening phrases, Martin begins in a warm, serene head voice and her Texan accent is almost unnoticeable. As she transitions directly into the refrain of Kennedy and Carr, 252 this changes into a light, dreamy head and slightly old-fashioned voice reminiscent of the torch singers of the late 1920s. Further effect is provided by the inclusion of two new refrains. The first departs from the lilting dotted rhythms and quietly reminiscent lyrics of the original song, and introduces a faster four-beat clog dance tune. The second returns to the same dotted rhythms of the original chorus, but now in the guise of a rhythmic recitation that verges on coon-song style in both performance and lyrics.

The tone and character of the song changes with each refrain. The range of “Hometown” is just over an octave but the nadir and apex pitches occur only once in the entire 120-bar song, rendering the range even smaller. In fact, eighty-six percent of pitches in the song fall between D4 and B4, a *tessitura* in the most versatile part of Martin’s range, and where she switches freely and effectively between her head and chest voices. The contrasting rhythms and agile intervallic leaps within the melody favoured a smoothly detached delivery, which suited Martin’s light head voice, and she was able to include a number of vocal slides that enhanced the smoothness of the vocal

250 A transcription of her performance can be found in Appendix B.
251 The poem *Araby’s Daughter* was written by Thomas More (1779-1852) with music composed by E. Kiallmark in 1822.
252 See Appendix B.
Spectrogram 5—5 shows the similarity in resonant balance between Martin’s voice and the string accompaniment. Martin sings in both a conversational tone and at a conversational level—indicated in the spectrogram by the absence of partials in the singer’s formant. It is apparent that Martin is relying on the setting of the microphone levels to maintain her audibility. Spectrogram 5—6 provides a detail of the beginning of the phrase, illustrating how close the two are in relative intensity. Martin’s sliding approaches and well enunciated vowels are all that separate her voice from the string accompaniment.

The second refrain begins after a short, half bar pause from both orchestra and vocalists. Martin capably introduces an abrupt key change to C major, and an increase of tempo from a relaxed andante to a more excited allegretto. The mood of the refrain moves instantly, reinforced Martin’s move to a matter-of-fact chest voice and marcato crotchets in a more obvious southern accent, including some obviously non-city words such as “ain’t” and “granmaw”.

The structure of this refrain consists of three parallel periods, separated by a two bar orchestral bridge, each of which modulates up a semitone. The following eight bar coda includes an orchestral modulation. Although these three periods sit quite low, they remain within the accompaniment’s harmonic structure and Martin is easily able to switch between the declamatory mode and sung phrases. Martin’s voice, particularly as she descends to the nadir of the melody at the end of each period, shows none of the strain evident in the previous week’s performance. In the second period shown at Figure 5—4, Martin moves lightly to her head voice for the penultimate sixths in each two bar group of the first phrase before stepping down firmly to the dominant. She is very comfortable in this style and her voice is relaxed, bright and supple. The same VI-V melodic movement extends to include the coda, seen in Figure 5—5, which concludes with an extension of the previous period’s final scalar motion. This is embellished with a very firm perfect cadence, opening the way for a wholly new performance style in the next refrain.

The orchestral bridge passage to the third refrain opens with the sound of a fiddle tuning, followed by an awkward rise in pitch and a slowing of the tempo. The music and the lyric evoke imagery more often associated with coon songs from earlier in the line.
century and, in a skilled example of declamatory *Sprechstimme*, Martin injects more Southern expressions and vocal inflections into this refrain. She switches easily between the declamatory mode and sung phrases to maintain the relationship with the melodic style of the first refrain. This form of delivery focuses attention on the speaker; Martin’s ability to control the focus of an audience—a skill developed further on stage—came to play a significant role in her live performances.

Martin sings the whole refrain at an elevated dynamic level, but remains in a well-produced, resonant head voice. She changes to a recognisable belt phonation for the last few bars when she produces a final B4 reminiscent of Ethel Merman’s belt style. The change from classical head voice to belt phonation (see Spectrogram 5—7) is preceded by a short, clean break that allows the singer time to adjust, in order to produce clear and immediate onset *vibrato*. Martin’s tension in producing the final note is evident in the flatness of pitch (even though the penultimate note is sharp) and her *vibrato* (see Figure 5—6), is faster than her usual 6.2 Hz, and unusually narrow, jagged and uneven.
These significant deficits imply Martin had not yet fully developed belting as part of her vocal repertoire. This is especially apparent when a comparison is made with Ethel Merman’s vibrato on a similarly pitched, belted final note, shown on the right of Figure 5—6. Merman produces her quintessential final note (in this case a C5) very slightly sharp and with vocal magnitude well beyond that of Martin. Merman’s vibrato (a smooth, even 5.6Hz) is narrower than Martin’s and is a model of relaxed production. Martin’s vibrato shows limited control and refinement.

“Serenade in the Night” and “Hometown” were popular songs and the audience was almost certainly familiar with both. Yet Martin’s performance of each was very different. In “Serenade in the Night” she appeared inexperienced, out of tune, beyond her range, not in control of her voice, not attuned to the orchestra, and well out of her depth. In contrast, her performance of “Hometown” was capable, flexible and well prepared. Not only was she in tune and singing within a tessitura where her voice is at its most responsive, she was able to engage the audience by manipulating her speech patterns and vocal cadences. In the opening of “Hometown”, she was urbane and cultured, with her speech patterns and vocal style portraying a quiet, well-bred, well-educated city girl. In the second refrain, as her reminiscences became more personal, Martin changed her speech patterns and vocal styles to reflect a persona who had come to live in the city, but who was not entirely separated from their rural background. By the third refrain, Martin was leaving the audience in no doubt as to her strong

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253 Martin’s voice appears to fade a little when the chorus and orchestra enter; however, a small break in the background sound appears to indicate a change of microphone level in the studio, rather than a decrescendo initiated by Martin.

254 From the 1936 musical Red Hot and Blue by Cole Porter.
connections with the farming community. In the final refrain, where the melody returns to the musical content of the first refrain, Martin has thrown off all evidence of an elegant city girl through her brassy belt in the style of Ethel Merman.

In March 1940, Martin returned to the Maxwell House Good News as a regular vocalist. The show had been restructured and its airtime reduced to thirty minutes, shedding much of its expensive Hollywood content and effectively becoming a variety support vehicle for Fanny Brice in her immensely popular Baby Snooks persona. The Master of Ceremonies for the show was bandleader, actor and popular crooner Dick Powell, who usually opened the show with a song, perhaps introducing a guest star for some comic repartee. Martin and Powell would sing a duet, Martin a solo, and Baby Snooks, along with her long-suffering Daddy (Harvey Stafford), would present their latest 10-15 minute sketch. This light, urbane and extremely popular show broadcast nationally over the NBC blue network.

Unfortunately, no recordings of these radio programs have been discovered. However, local newspapers contain records of some programs, and these provide a clear picture of the music heard on the shows. It seems that Martin and Powell enjoyed an easy camaraderie and the two presented duets ranging from comic songs, such as “Mr Gallagher and Mr Shean”, “What’s the Matter with Father?” and “Barnacle Bill”, to popular songs from recent movies and Broadway shows. The duets performed by Martin and Powell were mostly light, fun and easy to listening numbers interspersed with the occasional gently romantic song such as “I Cried for You” and “Moonlight Bay”.

Martin’s solo performances on the program demonstrated the breadth of her vocal experience gained on stage, screen and record since her previous appearance. They included a classical medley of Strauss tunes, a classical/swing version of “Il Bacio”, “My Heart Belongs to Daddy”, “Katie Went to Haiti”, “Rhythm on the River” and “Ta-ra-ra-boom-de-ay”. Martin’s regular appearance on network radio helped to cement her Hollywood image and gave her the opportunity to refine her skills as a live entertainer. Her increased exposure as a versatile classical/swing crossover vocalist

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255 Martin and Powell were to revisit their double act in later years, starring together in war time feel good movies Star Spangled Rhythm (1942) and Happy Go Lucky (1943).
256 Martin would later reprise “Ta-ra-ra-boom-de-ay” in Happy Go Lucky (1943)
meant that when she began her next yearlong radio stint, she could perform in any vocal style.

1942: Kraft Music Hall Radio with the Crosby Brothers.

“Mary Martin joined the gang on the Kraft Music Hall tonight. She took Connie Boswell’s place, since Connie is going on a long personal appearance tour throughout the East.” From the diary of M. E. Windham

“To put it plainly, I was fired. They wanted Mary Martin in my place, so they hired her.” (Connie Boswell in Variety 18th March 1942)

The most extensive collection of Martin’s radio appearances date from 1942. The United States entered World War II in December 1941, and by January 1942, the entertainment industry was already encouraging preparedness for the home front support of the war effort. Films were integrating elements of the war and wartime with the traditional Hollywood musical themes; using the perspective of ordinary people to create an uneasy familiarity with war. Radio campaigned to maintain morale at home. Broadcasts encouraged a sense of duty for all, not just for those in uniform, and immediately began transmitting radio programs directly to military camps all over the world (Jenkins 2001, 316). Radio provided a direct link between the families and troops with presenters as intermediaries, able to fill the role of lover, friend and confidante. Sounds and stories from home, spoken by familiar voices, created a sense of unity that had not been possible prior to radio’s emergence.

The programs were similar in structure to Hollywood musicals, with a principal male and female character, comic songs and large numbers with the chorus, all fitting comfortably into an hour. The two central characters were good friends rather than lovers, their solos and duets were nostalgic rather than romantic, and the shows spoke directly to the audience rather than being observed by the audience. These programs maintained soldiers’ connections with civilians by simultaneously referencing, and including the listener in, everyday American. Like the movie musicals, radio shows “touched a collective nerve by warmly recalling the values at the core of the democracy the nation was fighting to preserve” (Jenkins 2001, 321).

*Kraft Music Hall* (WEAP New York), which had been broadcast since 1933, was an

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257 1 January 1942. Muriel Esther Windham was a 13-year-old girl in Dallas Texas in 1942. Her diaries, an insight into life as a teenager in the 1940s, have been transcribed and published at http://mewindham.wordpress.com, last accessed 16 December 2012.
ideal vehicle for this purpose. Popular bandleader and composer Paul Whiteman hosted
the show from its beginnings, and was joined by co-host Bing Crosby in 1935 who
became sole host in 1936. The *Kraft Music Hall* presented a mix of live variety acts,
singers, dance bands, and comedy sketches, with its host supported by an array of co-
hosts, regular guests such as Danish pianist and comic music commentator Victor
Borge, and close harmony vocal groups like the Merry Macks and the Music Maids.

From 1 January 1942 Martin joined *Kraft Music Hall* as a regular co-host, appearing as
an integral member for most of that year. She was no longer just a “Hollywood
singer.” Crosby referred to her as a “triple threat” performer and she performed solo,
as well as taking part in conversations, comedy skits, and duets. When Bing Crosby
took occasional breaks for holidays and personal appearances, Martin co-hosted with
his brother, singer and bandleader Bob Crosby. On these occasions, she would perform
up to eight songs rather than the usual three or four.

Very few recordings of *Kraft Music Hall* survived the war. All the pre-1944 recordings
allegedly disappeared after being locked in a cupboard by engineer Murdo Mackenzie
when he was called up to active service in World War II. Four transcription
recordings were discovered after NBC donated their entire radio recording collection to
the Library of Congress in 1971, and some others are now housed in private collections.
The surviving transcriptions reveal a song repertoire diverse in style, performance and
emotional distance that was (without exception) calculated to improve the morale of
troops and their families. There were nostalgic songs, crooning love songs and
contemporary popular songs to remind the soldiers of that for which they were fighting.

Martin sang in a wide array of vocal genres and registers, in contrast to the female guest
vocalists who only performed in their trademark styles, exhibiting her rapidly
developing adaptability. In these recordings Martin shows a sophisticated sense of the
role of tonal variation in the manipulation of the listener’s perception of physical
distance—a skill that had not been previously evident. Martin’s speaking voice in these
broadcasts is lower pitched than in her earlier broadcasts. Her southern accent is less

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258 Like the theatres, the *Kraft Music Hall* took a summer break for August and September. The last
program of the season aired on 30 July and the next season commenced on 1 October.
259 A term still in use describing a multitalented performer who is able to sing, act and dance in equal
measure.
260 On 9 July, Martin performed seven different solo numbers and only one duet with Bob Crosby.
261 According to writer Carroll Carroll during an interview for a 1990 edition of the Bing Crosby fan
pronounced, and remained that way when speaking unscripted with Crosby or announcing songs and guests. Martin’s talent for mimicry (commented on by reviewers after her first appearance) allowed her use of accents to change her persona in short skits, from the New York girl preparing for a blind date or a ditzy Texan foil for Crosby’s quiet maturity and Ronald Reagan’s GI charm.

It is possible to document more than eighty vocal performances by Martin on *Kraft Music Hall*, encompassing sixty-five individual songs. As shown in Figure 5—7, the songs fall into five broad categories: songs from Martin’s recent films, contemporary songs from stage and screen; nostalgic songs that had maintained their popularity over a period of up to 40 years; songs that were specific to war time; and songs in a classical style, both with and without Martin’s signature swing sections. A surprising absence is her signature song “My Heart Belongs to Daddy”. An omission that reflects both her changing performance persona and the public’s perception of her primarily as a performer on film.

Thirty-four recordings survive in the Library of Congress and in private collections, thirty-two of which provide a representative sample of Martin’s diverse of repertoire.

![Figure 5—7: Five categories of song types performed by Martin on *Kraft Music Hall* during 1942.](image)

262 Songs in this category could also fall into the contemporary popular or the nostalgic popular categories. “He Wears a Pair of Silver Wings” is an example of the first and “Pack Up Your Troubles in Your Old Kit Bag and Smile, Smile, Smile” an example of the second.
The songs fall into discrete groups based on four vocal modes—croon, popular, belt and classical—and show the beginnings of a distinct register separation between these four categories.\textsuperscript{263} An in-depth examination of nine songs illustrates these changes. Figure 5—8 itemises the range, tessitura and point tessitura for each song, grouping them into the three styles under discussion. The lowering of the tessitura and point tessitura in the croon style—a change that had not yet occurred in Martin’s 1938 radio appearances—is immediately apparent. Also discernible is an overall narrowing of the range and tessitura of the popular and belt styles, and a lowering of the point tessitura in the belt songs. Although the standardised nature of the popular song contributes to these alterations, the fluidity of performance pitch between artists is the main contributing factor.

\textit{Establishing a Crooning Voice}

During this period, Martin’s crooning technique is relaxed, intimate and very low-pitched. Many of the songs are introspective and private, such as Jerome Kern’s “Dearly Beloved”, which Martin imbues with a feeling of quiet prayer. Others are intimate and personal, like Noel Coward’s “I’ll see you again”, in which Martin conjures the image of mothers, daughters and wives whispering to photographs of their absent sons, fathers and husbands. Martin’s voice is as smooth, dark and silky as the saxophones that frequently accompanied in numbers such as “Serenade in Blue”, where the saxophone interlude appears as an extension of Martin’s refrain. Although many of the lyrics are embellished with crooning turns and grace notes, and words frequently begin with an upward slide and end in a glissando, Martin’s diction is clear and her words easily understandable.

Two of Martin’s 1942 croon songs show the remarkable depth of vocal range that she was able to utilise when using a microphone—“You Made Me Love You”\textsuperscript{264} and “The Way You Look Tonight”.\textsuperscript{265} Both songs share a range and tessitura considerably lower than any other of Martin’s vocal styles, but are nevertheless contrasting in terms of vocal effort and control. Her performance of “You Made Me Love You” was relaxed.

\textsuperscript{263} As Martin’s classical performances account for only 7 percent of the \textit{Kraft Music Hall} repertoire and have already been considered in Chapter Four, they have not been included in this discussion.

\textsuperscript{264} Written in 1913 by James Monaco and Joe McCarthy, and originally sung by Al Jolson in the same year. “You Made Me Love You” is best remembered being sung by a young Judy Garland writing a letter to Clark Gable in \textit{Broadway Melody of 1938}.

\textsuperscript{265} Written by Jerome Kern in 1936 and sung by Fred Astaire to Ginger Rodgers in the film \textit{Swing Time}, “The Way You Look Tonight” won the 1936 Academy Award for Best Original Song.
Figure 5—8: Range, tessitura and point tessitura of selected songs performed live by Martin on Kraft Music Hall during 1942, grouped into three vocal styles.

and seemingly well-rehearsed, but in “The Way You Look Tonight”. she appeared uncertain and uncomfortable within the vocal range of the song.

“You Made Me Love You”, was experiencing a resurgence in popularity as a swing
standard during late 1941 and early 1942, and Martin sang the song during her fifth week as a regular on Kraft Music Hall. This was the first song that Martin performed in a crooning style on the program. Prior to this broadcast, she had been restricted to up tempo numbers from her films—such as “Wait Till the Sun Shines Nellie”, “Ta-ra-ra-boom-de-ay” and “The Waiter and the Porter and the Upstairs Maid”. At this time, Martin was performing two or three songs on each program, and “You Made Me Love You” was the first of only two songs. In the lead up to the song, she appeared in a sketch with Crosby and Madeline Carroll as Mary the Jitterbug, “a live wire with a loose connection”, and spoke in a very low, hard voice that prepared her vocally for the depth of pitch in this song.

Martin performed “You Made Me Love You” in E major, a minor sixth lower than the original sheet music, and was almost the lowest she was to sing throughout her career (Figure 5—9). The most frequently used pitch in this song is C4# and the large number of notes falling below that point lowers the point tessitura to C4—lower than the tessituras of any the songs she regularly performed on radio. This pitch challenged Martin but, unlike her performance of “Serenade in the Night” two years earlier, her vocal control was far more developed and she was able to meet the challenge successfully.

Another change apparent in Martin’s her croon technique between 1938 and 1942 is the pitch of the tessitura within the song range. Comparison with “Serenade in the Night”, (see also Figure 5—9), indicates an overall lowering of the range of the song by two tones, but a complete change tessitura placement. In “Serenade in the Night”, the tessitura is situated high within the range of the song, in a similar position as the tessitura in Martin’s popular and belt style songs. Whereas in “You Made Me Love You” the tessitura is balanced and central to the range. In this performance Martin appears to have lost her concern with singing low notes and retains the light, conversational singing style that works so well with microphone technology, barely needing to sound the notes to have them picked up and broadcast.

Improvements in microphone and amplification techniques in the radio studios certainly aided in a change that Martin used to her advantage. Spectrogram 5—8 shows Martin

266 Instrumental versions by Harry James and Glenn Miller were in the charts and Guy Lombardo and Jimmy Dorsey’s orchestras had released recordings.

267 She sang down to a C3 in “Doh Re Mi” from The Sound of Music.
singing at the beginning of the second period of the first refrain (transcribed at Figure 5—10) and illustrates the way Martin improves her audibility by using a very strong emphasis on the consonants and sibilants in each word. She allows the vowels to flow gently between them in a smooth legato that complements the slides and portamenti she habitually uses in this style. In this particular example, saxophones support Martin’s tone without becoming dominant. This is especially apparent at the words “made” and “glad”.

While Martin’s control of her lower register had obviously improved during the four years between these two radio performances, its ongoing development can be seen in her vibrato. The two examples in Figure 5—11 are taken from the words “-times” (G3#) and “glad” (F3#) and illustrate the difference one tone can make in Martin’s vocal control, particularly when the pitch is very low. Both examples exhibit the same extent and virtually the same rate, but the shape of the wave itself is very different. The vibrato on the higher pitch (left) is smooth and even, evidently well-formed and
controlled. In contrast, the vibrato on the lower pitch (right) it is ragged and uneven. The strain is not aurally apparent, as in earlier recordings, but is still occurring.

Three months later, Martin sang “The Way You Look Tonight” using a slow, sliding croon with no embellishments, except for a single turn at the end of the song. The melodic movement of the voice is extremely legato, with many of the words and phrases connected by a continual portamento (see Spectrogram 5—9). This low in her range, Martin can only sing very quietly and both of the lowest notes show just enough resonance around the first formant of the spoken vowel for them to be recognisable. Martin’s voice lags behind the pulse of the song, and is not relaxed enough to dissipate the suggestion of discomfort between the sustained rhythm of the vocal line and the flowing counter melody of the strings. This lends credence to Variety Magazine’s suggestion that she “wasn’t too comely presented in her musical numbers.”

Given the mastery of rhythm that Martin had shown in her earlier studio recordings, this suggests that she is still not comfortable with the orchestra or the arrangement and that more rehearsal may have been advantageous. Her vibrato however did seem to have benefited from her experience, remaining at a constant rate just under 6Hz although slightly widening in extent towards the end of her sustained notes.

A possible explanation for the lacklustre performance was the scheduling of the “The Way You Look Tonight”. It was placed at the very end of a show in which Martin had

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268 7 January 1942.
performed two high-energy belt-style songs, a low croon-style duet with Bing Crosby, two sketches (also with Crosby) as well as a ten-minute comedy routine with Ronald Reagan. By the time she sang “The Way You Look Tonight”, it is probable that Martin was vocally exhausted and too tired to concentrate on her voice production.

**Perfecting a Popular voice**

When singing popular songs, Martin employed the upper levels of her chest voice and the lower to middle part of her head voice. This fluid vocal register offered flexibility, allowing Martin to conserve energy when switching between styles. It is also, where Martin’s diction is the most speech-like. In this register, the pitch of the notes is low enough not to interfere with the clarity of vowels, no matter which dialect Martin was choosing to use.\(^{269}\) Martin freely uses the common torch song embellishments that are a hallmark of this style, enhancing them with a wide range of vocal effects, including throat-grinding growls, yodels and coloratura sounds.

The delivery of popular and character songs implies a more social distance between the vocalist(s) and the audience, and brings with it a sense of camaraderie and shared lives. The songs are (by definition) well-known, either nostalgic like “O By Jingo”,\(^{270}\) intended to raise the spirits of the listener such as “When You’re Smiling”; or newly released on Broadway, for instance “Everything I’ve Got Belongs to You” from Rodgers and Hart’s *By Jupiter*.\(^{271}\) Martin also performs some solo character songs, such as in “I Do’d It”, using a young, naïve and childish voice, and Gershwin’s “Do It Again” where she uses a faux naïve style.

Martin had recorded “Do It Again” for Decca in 1941. The differences between studio recording and live radio performance suggests that Martin was aware that the studio’s intimacy was perhaps too intense for live radio. In the studio recording, Martin sings in a low, gentle head voice, with the tempo at a languid *lento* (minim = 53). The tempo is slow enough for Martin to make full use of aspirants, and the sound is resultantly rich, breathy and intimate. In Spectrogram 5—10(B) Martin’s breath sounds can be seen, even over the background hiss of the record. The words “to” and “have” are conjoined

\(^{269}\) An example of this is the song ‘Conchita, Marquita, Lolita, Pepita, Rosita, Juanita, Lopez O'Toole,’ also known as ‘The Lady O’Toole,’ a duet Martin first performed with Bob Crosby, using an exaggerated Spanish accent.

\(^{270}\) Written by Lew Brown and Albert von Tilzer for the musical *Linger Longer Letty*, which enjoyed enormous popularity for over thirty years.

\(^{271}\) An upbeat song about a lady who is just a little murderous toward her man; “I’m not yours for better but for worse,” the lady sings.
by the sound of Martin’s breath, as are “you” and “take”, and she inserts a breath filled break between the consonant and vowel of the word “kiss”. The intimacy of Martin’s breath and the immediacy of her voice, is heightened by her legato —evident in Spectrogram 5—11(A)—and even more striking in Spectrogram 5—11(B), where there is a continuous wave of sound in the first eightpartials of the voice when Martin sings “say no no no no no no”.

This contrasts strongly with Martin’s radio performance in which she forms her words quickly and decisively, finishes each word cleanly before moving to the next, exhibiting virtually no sign of breathiness. Even at the word “have” in Spectrogram 5—10, where natural breathiness might be expected, Martin moves directly to the voiced “a”, ensuring the “h” is audible, but not stressed. The faster tempo (minim=70) and the slight separation of the words, combined with the improvisational differences between the two refrains, increases the perceived personal distance of the performance. In the radio performance, Martin’s vocal tone is lighter and more playful than sensual. While not as naïve as her performances of “My Heart Belongs to Daddy” nevertheless implies a young, inexperienced woman singing, rather than a sybaritic siren.

It is the duets Martin performs with Bing and Bob Crosby that best demonstrate her development as a variety entertainer. In these songs, Martin plays the role suggested by the song itself, while acting as a foil for her male partner. Martin had long admired Bing Crosby and had adopted a number of his techniques into her own vocal repertoire.

Figure 5—12: “Do It Again” (Radio recording): Improvisational changes in the first line of the refrain in the radio (top) and studio (bottom) recordings. See also CD tracks 5—11 and 5—12.

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272 See Figure 5—12.
In their radio performances together, Martin clearly took the role of *vocal straight man* even when singing in a crooning style. While this allowed Crosby to take the lead in any alterations in pitch and rhythm, it also characterised Martin as a reliable partner able to maintain a steady and consistent vocal line.

The majority of the duets that Martin performed with the Crosby brothers were cheery, feel-good songs that required little technical proficiency but allowed her to experiment with different vocal techniques in a performance situation. The duet that Martin and Bing Crosby performed most frequently on *Kraft Music Hall* was “Wait Till the Sun Shines, Nellie”, an up-tempo song about a pair of sweethearts (Nellie and Joe) who sit inside watching the rain, unable to attend a local picnic due to the inclement weather. Joe comforts the crying Nellie singing the refrain:

```
Wait till the sun shines, Nellie,
When the clouds go drifting by,
   We will be happy Nellie.
     Don’t you sigh.

Down lover’s lane we’ll wander,
    Sweethearts you and I
Wait till the sun shines, Nellie
    Bye and bye
```

By the 1930s, the refrain had become something of an anthem for hope and the coming of better things. It was recorded by many, and was even sung on the floor of the New York Stock Exchange. Martin and Crosby performed the song in the film *Birth of the Blues* (1941), recorded a version for Brunswick Records and revisited it on *Kraft Music Hall* and *Command Performance* five times over the course of Martin’s year on the show. Speaking through the metaphor of the storms of war and the theme of separation and reconciliation, the song was an ideal vehicle for raising morale, particularly for those left at home.

Martin and Crosby performed “Wait Till the Sun Shines, Nellie”, in a playfully relaxed manner, which underscored their on-air relationship and the similarities of their production techniques. There was plenty of opportunity for vocal tricks as they transitioned between their preferred registers—Crosby singing string bass style

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273 Written by Harry Von Tilzer in 1905 and first recorded by Harry Tilley in the same year.
275 The song remained an audience favourite for many years, and Crosby and Martin were still reprising the song on national television twenty years later.
accompaniments while Martin maintained the rhythm and melodic integrity, and Martin yelling and yodelling in grand Southern style.

There are four surviving recordings of Martin and Crosby performing “Wait Till the Sun Shines, Nellie”: the 1941 film recording, their Brunswick studio recording, and two radio broadcasts (8 October and 13 October 1942). The studio recording and both radio performances are in the same key (F Major), maintain the same tempo (minim = 120mm) and a virtually identical performance style. The film recording, however, is pitched a semi-tone higher, in G Major and is performed at a noticeably faster (minim=132mm). It is unknown whether the film recording was actually at a different pitch and tempo, or if the playback speed was faster, although there are several other differences between the film version and the other three recordings. Martin sings in a legato style in the film, sustaining most pitches for their full written duration, whereas, the styles of the later recordings are more staccato.

Although there are no visual images accompanying any of the 1942 recordings, they both exhibit more vocal “liveness” than the performance in the film. The Brunswick recording contains more vocal embellishments and rubato singing than the film recording, implying a particular level of communication between the singers. The radio performance exhibits the same vocal embellishments, an even more rubato treatment of the rhythm, and further aural evidence of “liveness”—Martin smiling broadly while continuing to sing (see Figure 5—13). Martin’s mouth has closed slightly, her lips pulling strongly toward her ears, and her chin has pushed down toward her neck. All three actions change the shape of the resonator and the sound of the vowel. This change is apparent when comparing the same two points of the song taken from the Brunswick recording (A) and the radio recording (B) (see Spectrogram 5—12).

In both examples, Martin is singing in belt phonation, with her resonance strongly centred in partials 2-4. The words in the studio recording (A) are articulated cleanly and (with the exception of the dotted minim on “wander”) devoid of vibrato. Martin begins the phrase with a slide up to the first A4, and the grace note at the word “down” is neatly executed with Martin alighting firmly on the G4. The rest of the phrase is

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276 The Kraft Music Hall team appeared as part of the Command Performance on 13 October 1942. This was a 30 minute variety program sent out to the American troops serving overseas. Servicemen made requests for artists they wished to hear perform on the show, and a wide variety of performers donated their time to perform on the program, while the radio networks donated studio time. The show aired weekly between March 1942 and 1946.
perfectly in tune at the fundamental, with the upper partials moving a little sharper, imparting a bright sound. In the live radio performance (B) however the first note is explosively produced, beginning slightly sharp and sliding around, before moving to the largely uncontrolled acciaccatura. The faint line of the fundamental shows Martin struggling for control as her tone is compromised. She recovers quickly and finishes the phrase, but not before creating a mental image amongst her audience of the fun that she and Bing Crosby are having.

“Rose O’Day”, also known as the “Filla-ga-dusha Song”, was written by Al Lewis and Charlie Tobias in 1941, and was sung by Martin and Crosby on Kraft Music Hall on 29 January 1942. It is a gentle Irish themed song, which at the time was the third best-selling sheet music nationally, the song with the most radio plugs\(^\text{277}\) and a number 5 hit for Kate Smith in the mid-west United States charts. Kate Smith’s hit recording of the song, and the recording by comedic duo Flanagan and Allen, presented “Rosie O’Day” in lilting triple time. Martin and Crosby’s version begins in the same way each singer taking turns to sing a phrase of the verse, followed by two iterations of the refrain with the following melodic structure:

\[
\begin{align*}
\text{In 3:} & \quad A A_1 B A_1 C \\
\text{In swing time:} & \quad A A_1 B A_1 C_1 
\end{align*}
\]

Crosby sings the first phrase of the refrain and then both sing the tongue twisting nonsense lyrics that gave the song its alternate title: “You’re my filla-da-gusha filla ma-

\(^{277}\) A plug does not necessarily include the playing of that song. A song might only be mentioned in passing, but each mention brought the song to the attention of the general public and increased the likelihood of a record or sheet music sale.
rusha bah-da-ra-da-boom-too-de-ay”. Martin added to the sweetness of the song by including operettic-style accompaniment to Crosby’s singing of the second period (A₁) of the refrain (see Figure 5—14) strengthening the waltzing lilt of the tune.

The repeat of the refrain begins with a sudden change from triple to duple meter—from a gentle Irish waltz to a modern American swing—in which Martin takes the vocal lead, introduces yodel techniques, and firmly places the song in the American milieu. Martin gives a pre-yodel lift to the word “Rose” in her first phrase of the period (see Figure 5—15 and Music Example 5—7) and then adds a full yodel in the second phrase. The Spectrogram 5—13 captures the yodel visually. The “ie” of “Rosie” finishes with a glottal stop, creating a moment of silence as Martin alters her pitch upwards before an unannounced drop of almost an octave and a simultaneous change to chest voice. It is a technique that Martin regularly utilised during her career including (quite spectacularly) “The Lonely Goatherd” from The Sound of Music seventeen years later.

“Rose O’Day”, which finishes with a sustained G4, is a clear example of Martin’s high level of vocal control. Spectrogram 5—14 shows the loud onset of the note with strong resonance from the raised first formant in the second partial. Martin decrescendos by gradually tuning the first formant to the fundamental, thereby reducing the resonance in the second partial. The visibility of the partials during this duet is problematic. The second partial is visible in the spectrogram throughout, but the fundamental is almost

![Figure 5—14: Martin accompanying Crosby in their performance of “Rose O’Day”.

Figure 5—15“:Rose O’Day”: Embellishment of swing section

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obscured by the third partial of Crosby’s tone. Both partials are labelled for clarity.

**Developing a Belting Voice**

Many of the contemporary popular songs sung by Martin on *Kraft Music Hall*, particularly those from recent movies, were up-tempo, show stopping, swing numbers, sung increasingly by popular singers categorised as belters—such as Ethel Merman and Betty Hutton. Martin often relied on her *fortissimo* head voice to mimic the sound of the belters, but also began to add belting stylings to her solo songs. Although there is no evidence of a gradual inclusion of belt phonation over an extended period, there is an indication that Martin experimented with the production technique. Examples of Martin’s careful placement of belt phonation occur in three of the nine songs under consideration. On 12 March 1942, she sang “The Saga of Jenny” in a predominantly belt voice. A month later, on 16 April, Martin combined her chest voice with small amounts of belt phonation in “Arthur Murray Taught Me Dancing in a Hurry”, and then utilized a light belt phonation for “He Comes From Timbukthree”.

Due to the ASCAP radio ban, sales of recordings and sheet music were limited during 1941. “The Saga of Jenny” finally reached network radio by the end of the year when Gershwin wrote an expurgated version of the lyrics allowing it to be aired on independent radio. It was a raunchy number about a girl would make up her mind (usually with disastrous results) and a favourite song in army camps around the world.

Martin performed the unexpurgated lyrics on *Kraft Music Hall* only days after Lawrence introduced the song to thousands of servicemen in attendance at the Stage Door Canteen (mcclung 2007, 121-3). The song was approximately six minutes long and required two sides of a normal shellac disc. It began with a verse, six choruses (each with its own refrain beginning “Poor Jenny! Bright as a penny/Her equal would be hard to find”) finishing with a spectacular coda. The version Martin performed was substantially shorter, lasting only 2 minutes 40 seconds. Martin omitted two refrains, and sang five of the six choruses before finishing with another refrain taking the place of the coda. This shorter version was probably created to accommodate programming time constraints, but it also distanced Martin’s version from that of the very popular Gertrude Lawrence.

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278 “The Saga of Jenny” was one of the show-stopping numbers sung by Gertrude Lawrence in Kurt Weill and Ira Gershwin’s hit musical *Lady in the Dark*.

279 The music and lyrics can be found at Music Example 5—8 in Appendix B.
The *tessitura* of “The Saga of Jenny” is a comfortable D4 to G4, the *point tessitura* relatively low at D4+, and Martin sings the entire song in a lightly belted chest voice. Her diction is impeccable and her delivery rhythmic and clear. Although sounding very relaxed most of the way through, the strain of not preparing properly to reach above G4 in just one bar of each chorus began to show as the song progressed, and the pitch of the B4b began to flatten. This, however, did not stop Martin from delivering the final note in full belt phonation, her first since “Hometown” in 1938. Spectrogram 5—15 shows that the final note is relaxed and powerful, with strong resonance in all partials above the fundamental. Figure 5—16 shows an even vibrato, with a slower rate and extent wider than her earlier belt examples; an indication of Martin’s increased vocal confidence in this style of phonation.

“Arthur Murray Taught Me Dancing in a Hurry”, was written for Betty Hutton in her first feature film *The Fleet’s In* (1942). Hutton sang the comedy number in a harsh, grating, New York accented belt voice, finishing on a strained belted D5. In contrast, Martin approaches the song in a more genteel manner, beginning the verse in a conversationally rubato head voice. The chorus is slightly less frenetic than in Hutton’s version, but is rhythmically dynamic and energetic. Martin remains in her comfortable chest voice until the final refrain when she reaches the climactic notes of the song. Unlike Hutton, she does not finish the song on the apex note, but instead reserves the highest pitch for the word “queen”, in the final phrase. Rather than maintaining her chest voice and re-enforcing it with belt phonation, she moves into a *fortissimo* head

![Graph showing vibrato on the finale belted note of “The Saga of Jenny”](image.png)

*Figure 5—16: Martin’s vibrato on the finale belted note of “The Saga of Jenny”*
voice, which mimics the sound of the belt voice of other singers. She then moves back into her chest voice, which results in the pitch becoming slightly flat and almost (somewhat anticlimactically) overpowered by the orchestra. Spectrogram 5—16 and CD track 5—18 highlight this change. In “Arthur Murray Taught Me Dancing in a Hurry” Martin appears to be exploring alternatives to full belt production outside her comfortable chest voice, a supposition confirmed by her performances of “He Comes From Timbukthree”.

“He Comes From Timbukthree” first appeared on Kraft Music Hall on 16 April as the finale of a Victor Borge monologue, “The Inflationary Language”. Both Martin and Crosby sing the brief introduction, but Martin performs the main lyric. It is quite fast (crotchet = 138) and the accompanying orchestra sounds as though it is only just keeping up with Martin and The Music Maids. When she revisited the song without Crosby on Command Performance a few weeks later (7 May), Martin performed it at a slightly slower tempo (crotchet = 124), but a semitone higher and with considerably more energy. In this performance she abandons her head voice and sings most of the song in a bouncing belt phonation.

The accompaniment varies considerably between these two performances. The Kraft Music Hall ensemble was very light and unobtrusive—playing in the background as a support for the singer. The Command Performance utilised a large swing band, which did not hold back at climactic points in the performance. Spectrogram 5—17 presents a comparison of both endings. Spectrogram B (the Kraft Music Hall performance) is dense, showing input from the band and the backing vocals, but the relative intensity of Martin’s voice is visually and aurally clear. In Spectrogram A (the Command Performance) the balance is similar, and there is evidence of increased resonance in the area of the singer’s formant.

In both performances, Martin changes to a powerful head voice and produces a fortissimo finale in classical phonation, as she did in “Arthur Murray Taught Me Dancing in a Hurry”. The final note of the Command Performance is a ringing D5, too high for her to utilise her belt voice, but a note so intense that it could easily be mistaken as a continuation of the loud belt phonation that she was using until that time.

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280 Borge complains that now everything is getting bigger and more expensive, the time has come to increase the value of words as well. Every time a number appears in a word (won-derful) it is increased by one (two-derful).
Although happy to use her *mixed chest* voice at lower pitches, Martin’s head voice was still her most reliable and effective tool for a spectacular finish.

A focus on the evolution of Martin’s vocal styles in a single performance context has underlined the vocal demands imposed on the female performer by the changing delivery of entertainment at the beginning of the period under consideration. Importantly, it has revealed Martin’s increasing flexibility in adapting to those demands, and highlighted the beginning of her fusion of disparate vocal techniques within a single singing style. Part Two of this dissertation has explored the acoustic characteristics of Martin’s contrasting vocal styles in her early studio and film recordings, and highlighted the developmental process of her vocal techniques in the context of her live radio performances on the NBC network. A review of these findings is presented in the following Summary of Part Two, after which the focus turns to Martin’s refinement of her vocal style on stage and television in Part Three.

**Summary of Part Two**

Part Two of this dissertation has determined a reference point from which to evaluate Martin’s integration of a variety of vocal techniques, and presented evidence of her ability to produce an integrated singing style that adapted to the technological advances occurring from 1940-1955. Furthermore, it has exposed an aspect of Martin’s body of work that illuminates her development as a public personality and performer that has been ignored until now.

The variety of roles Martin played prior to her first starring role on Broadway required her to perform in many different vocal styles, and she began to create the signature technique and persona that continued to develop through the next decade. The analysis of Martin’s performances on stage, screen and record has shown that her vocal training and flexibility allowed her to cross the classical-popular divide in both directions. Furthermore, Martin is shown to encapsulate the transition from *operettic* styles to more popular forms in musical theatre at this time, foreshadowing the dramatic changes in the manner of female vocalisation during the next decade.

Martin’s vocal development during her appearances on the radio programs *Good News* and *Kraft Music Hall* between 1938 and 1942 has been explored through an analysis of
extant recordings. Such an analytical discussion has highlighted the changing use of her voice, and her continued development of control and flexibility between styles. In addition, Martin’s development as a performer—in terms of her understanding of the effect of different vocal styles on particular audiences, and her improved ability to move between different character roles—was demonstrated through changes in her speaking voice as well as her vocal production. In particular, this chapter has shown how Martin was able to use each performance opportunity to hone a variety of distinct vocal tools—classical, croon and belt—and other techniques such as blending two styles in the one performance. She was thus able to work effectively with a range of well-known artists such as Bing Crosby, Rudy Vallee and Dick Powell by drawing on the appropriate style for that performance.

Although downplayed by Martin and her biographers, radio played an important role in Martin’s growing popularity as a performer and in the development of her girl-next-door persona. Indeed, her radio performances provide the link between Martin the celluloid starlet and Martin the Broadway star. Furthermore, they provide insights into Crawford and Weill’s later decision to cast Martin in One Touch of Venus,\textsuperscript{281} despite having only one successful Broadway show\textsuperscript{282} and a number of average Hollywood movies to her credit. By the end of her twelve month stint on Kraft Music Hall, Martin had developed an impressive array of vocal and performance skills. She embraced this opportunity to explore and extend the boundaries of her voice, and was beginning to fine-tune her communication skills with a widespread audience. Part Three of the present study will investigate how the adaptability of this cultural icon endorsed a cohesive vocal style that synchronised with advancing technology.

\textsuperscript{281} Which will be discussed further in Chapter Six.
\textsuperscript{282} Martin appeared in two other shows which closed before their New York opening. Nice Goin’ closed in Boston in November 1939 and Dancing in the Streets in April 1943.
PART THREE: MARY MARTIN’S INTEGRATION OF VOCAL STYLE AND THE ESTABLISHMENT OF A CULTURAL ICON.

Introduction

Part Three of the present investigation explores Martin’s application of the experience she gained through her early career and the integration of vocal techniques through her starring roles on Broadway and London’s West End between 1943 and 1950. The focus then turns to the realm of television—a momentous technological feat that revolutionised the delivery and reception of entertainment completely—and Martin’s seamless vocal adaption to the intimacy of its performance environment.

Chapter Six focuses on Martin’s first starring role on Broadway: Venus in Cheryl Crawford’s production of One Touch of Venus. This chapter substantiates the many disparate vocal techniques that Martin drew upon in this role, and her introduction of a flexible style complementing a character conceived outside the established female singing roles. The current research reveals the role of Venus as pivotal in the development of Martin’s career; success in One Touch of Venus established Martin as a role model in the eye of the public, the media and the musical theatre community. The chapter offers observations on the successful integration of the three archetypical styles forming the core of her particular vocal morphology and the contribution of composer Kurt Weill to her technical development.

Chapter Seven traces Martin’s personal and vocal development through the second half of the 1940s as she continued to explore vocal styles through four different stage roles—Tchao-Ou-Niang, a young Chinese wife in Lute Song, the prima donna Elena Salvador in Pacific 1860, the sharp shooting Annie Oakley in the national tour of Annie Get Your Gun, and Nellie Forbush in South Pacific. The chapter demonstrates ways each of these roles contributed to Martin's redefinition of the female voice on Broadway.

Through examination of the challenges overcome by Martin in Lute Song and Pacific 1860, Chapter Seven demonstrates her development as an actress and determination to succeed under difficult and unflattering conditions. These two characters were the last she would play at another’s insistence—choosing instead to take control of the roles and vocal styles she subsequently performed. This chapter also elucidates how her roles in
Annie Get Your Gun and South Pacific changed the perception of Martin in the eyes of the theatrical world and the general public. The chapter closes with an analysis of South Pacific, establishing the importance Martin’s innovative manipulation of vocal style, as much as her physical actions, in balancing the bouncing naturalness of Nellie with the depth of the emotions confronting the character.

Chapter Eight authenticates Martin’s place in 1950s television entertainment, clarifying the way adaption to the new medium enabled her to become one of the first proponents of the modern female voice. The chapter first situates the communication of performance within the milieu of early television, and then explores the changes required to enable artists to communicate successfully in that environment. Through three case studies, the chapter moves on to demonstrate Martin’s ready adjustment to live performance in a long and varied career on television.

The first is Martin’s now legendary 1953 appearance with Ethel Merman in the Ford Motor Corporation’s 50th Anniversary Show. Anniversary Show marks the emergence of a new dimension to Martin’s intimate performance style, and shows the ways in which the features of Merman’s performance technique limit her attraction in the same setting. The second case study examines the first network adaption of a Broadway show: Martin’s 1955 television broadcast of Peter Pan. This live transmission proved so popular that when the technology became available to record the show, it was produced in colour and re-broadcast for nearly thirty years. The role of Peter Pan became uniquely associated with Martin, and her performance—seen by generations of Americans—became the central reference for female performance and vocal style on Broadway to the present day.

The third case study focuses on the 1955 television special, Together With Music.283 This component examines Martin’s performance at the height of her vocal and thespian powers. It highlights the singer’s ability to move easily between the styles required by live performance in a medium that was both simultaneously public and intimate.

283 Starring only Noel Coward and Mary Martin, this 90-minute live broadcast was the first variety show to go to air with just two performers and no supporting singers or dancers. Even the orchestra and conductor were not in camera shot.
CHAPTER SIX: MARY MARTIN’S INTEGRATION OF VOCAL STYLE IN KURT WEILL’S ONE TOUCH OF VENUS

I saw One Touch of Venus Friday night and am very happy to tell you, and honestly too, that I had a fine evening. I thought the show was awfully good to look at and Mary Martin pretty miraculous. Then there’s the gratification in seeing a musical show with a viewpoint. I think you are to be congratulated and that is precisely what I am doing (Richard Rogers, 11 January 1944. Quoted in Farneth 2000, 228)

This chapter presents a detailed investigation of Martin’s first starring role on Broadway. It presents a contextual introduction to One Touch of Venus and its composer Kurt Weill, followed by an examination of four songs performed by Martin in her role as Venus. Complemented by the cast recording made in the early weeks of the show’s run, these vocal pieces are considered within the context of their place in the popular music canon, and their role as the first songs composed to incorporate Martin’s unique vocal capabilities. This aspect of the current research reveals Martin’s successful transfer of vocal production techniques refined in a technologically supported environment to the unamplified live stage. In particular, it illustrates Martin’s secure deployment of the three archetypical vocal styles—classical, torch singer and belt—to create a three dimensional portrayal of a single character in a particular show, and to signal a new direction in female vocalisation on the Broadway stage.

Background to the Development of One Touch of Venus

One Touch of Venus, based on the Victorian humourist F. Anstey’s novel The Tinted Venus, was the brainchild of independent producer Cheryl Crawford. German exile Kurt Weill (following on from his ground-breaking hit Lady in the Dark) composed, arranged and orchestrated the music; Ogden Nash, described by Weill as “the foremost light verse writer of America” (Hirsch 2003, 208) wrote the lyrics; and Agnes de Mille, who had recently revolutionised dance on Broadway with her choreography for Oklahoma!, created and directed the ballet.

Once Touch of Venus tells of the mayhem that ensues when a 3000-year-old statue of Venus comes to life after barber Rodney Hatch places his fiancée engagement ring on its finger. Venus, much to her own surprise, falls madly in love with Rodney and pursues him all over the city, with Olympian disregard for the mores of mid-twentieth-century New York. On a stylistic level, One Touch of Venus is a classic French farce, with larger-than-life characters running from one improbable situation to the next, the plot becoming more and more convoluted before suddenly disentangling to finish with a
happy ending. But *One Touch of Venus* is more than a simple farce, it is also a story of transformation. In 1943, with the United States heavily involved in World War II, people were eager to see musicals that provided relief and reassurance.

The show opened at the Imperial Theatre on 7 October 1943 and was favourably received by the critics. So high was the level of praise that the theatre critic of the *The New Yorker* (Wolcott Gibbs) opined that *Venus* was probably exaggerated because of the dire situation on Broadway at the time:

This year, however when the stock of any literate entertainment is such that even the sternest critics go down like the tin ducks in a Sixth Avenue shooting gallery, I’m afraid it is in for some pretty exuberant opinions.

Gibbs was correct in his estimation, although he too played the tin duck in the same review when he gushed that Agnes De Milles’ ballets were “interludes of lovely humorous magic guaranteed to melt…hardened and supercilious firstnighters [sic].” The show was declared “smart, newfangled and glossy”, and Mary Martin a “lady of high charm, an engaging quality and the ability to toss a song over the footlights”. A review from the *Herald Tribune* appeared in a souvenir program carolling:

An occasion for rejoicing…The musical show we have all been waiting for. It is gay and beautiful to look at; witty and melodious. There is style in the Perelman-Nash libretto, humor in the Nash lyrics, felicity in Kurt Weill’s score and brilliant satire in the Agnes de Mille dances. The Kurt Weill music is a source of continual delight. The collaborators have worked ably and imaginatively to give the season its first resounding hit.

The public demonstrated their agreement with the critics and the show ran for 567 performances; one the longest runs of a wartime musical.

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284 These comments may seem a little strange given *Oklahoma!* had opened only months before, but this was a new theatrical season—last season’s innovations did not count. 
285 *The New Yorker*, 16 October 1943.
286 Ibid.
289 A national tour followed, but was shortened, when a pregnant Martin became too ill to perform. Crawford, upon deciding there were no stars available with the same drawing power as Martin to, closed the show after only four months on the road (Davis 2008, 88).
appreciated the “adult, professional, comic and genuinely musical” show, as it had been some time since Broadway had “heard a new and modern score…at once popular and unusually fine.”

Already one of the Weimar Republic’s leading theatre composers when he fled Germany in 1933, Weill had achieved great success through narrowing the gulf between opera and popular music performance (such as cabaret) and by his strong collaborations with leading writers and poets. Most notable was his work with dramatist Berthold Brecht, with whom he collaborated on five projects including Die Dreigroschenoper (The Threepenny Opera) and Die Seiben Todsünden (The Seven Deadly Sins).

Although needing to rebuild his career when he settled in New York in 1935, he continued to believe strongly that musical theatre required a collaboration between the author and the composer from the moment of its conception through to the night of its first performance (Weill 1936, 64). This led to some of the most innovative musical theatre of the mid-twentieth-century, although Weill has subsequently been described as “an ardent, practicing advocate of collaborative theatre who was also a control freak” (Grant 2004, 76). He was certainly the dominant partner in One Touch of Venus.

The production of One Touch of Venus had been under development for over two years and the collaborative road was far from smooth. Weill had suggested the idea to Crawford after reading the Anstey book, thinking that it would translate well as an opéra comique in the style of Jacques Offenbach, one of his favourite composers. He also considered it would provide a good vehicle for Marlene Dietrich to make her first appearance on Broadway (Hirsch 2003, 210). A writing team was assembled consisting of Sam and Bella Spewak working on the libretto; Ogden Nash (who had never written a musical) writing the lyrics; and Weill composing the music. Sam Spewak quickly left the team and Weill found Bella to be “more and more difficult” (Farneth 2000, 221). The first drafts presented by Bella were “overstuffed, mock-heroic period operetta[s]” (Hirsch 2003, 215) and Dietrich was unhappy with the way her part had been written:

Bella had written all other parts much better than hers. Marlene found that

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290 New York Post, 8 October 1943.
291 Weill had studied music in Berlin with composer Engelbert Humperdinck and renowned composer, pianist and theoretician Ferruccio Bussoni.
292 The couple had written and directed Leave it to Me and were to win Tony awards for their work on Kiss Me Kate.
out immediately. She was extremely intelligent about it and put her finger right on the wrong spots. She was also constructive with suggestions how to improve the play. I am glad about it because it will break down Bella’s stubbornness.293

Dietrich’s concerns for the *libretto* were shared by Nash, Crawford and Weill. In order to consolidate his place as an influential composer on Broadway, Weill needed the kind of commercial success that Dietrich’s appearance in the show would guarantee. As soon as Dietrich signed her contract—despite a failed audition where her voice could not be heard beyond the third row (Hirsch 2003, 211)—Crawford replaced Bella Spewak with humourist S. J. Perelman.294 Nash, Perelman and Weill then:

sat down and worked out an entirely new storyline, in complete disregard for Bella’s script, with entirely new characters and no Olympus…Now it is a very fast moving, very interesting show, witty and romantic at the same time, with good comedy situations and good parts…we [have] decided to do the show in the early fall—with or without Marlene [Dietrich]. (Weill in a letter to Ira Gershwin (Farneth 2000, 221).

The final *libretto* was tight, fast-paced and risqué. When Dietrich saw the new script, she left the cast claiming the role was “too sexy and profane” for the mother of a nineteen-year-old daughter. Undaunted, Weill approached Gertrude Lawrence (who had only recently finished touring with his previous Broadway success *Lady in the Dark*) but she was hoping to return to England to entertain the Allied troops and was not accepting any plays, preferring to work for the Red Cross and Stage Door Canteen (Aldrich 1955, 157). Crawford approached ballerina Vera Zorina, who balked at working with Agnes De Mille. Singer Kitty Carlisle auditioned for the role but Crawford did not think she was suitable (Davis 2008 p. 72). It was almost a month after Dietrich left that the show’s publicist, Jean Dalrymple, convinced both Crawford and Weill that Mary Martin (whose first post-Hollywood show had just closed in Boston) should be cast in the role. Martin was not so sure of her ability to play Venus, “Me in a part of Dietrich? And Venus? She must be mad” (Martin 1977, 108).

Weill stipulated in his contract that there could be no fewer than twenty-one musicians,

293 Kurt Weill, quoted in (Farneth 2000, 215) and (Hirsch 2003, 211).
294 Perelman was well known for his short stories written for newspapers and magazines and his collaborations with the Marx Brothers, co-writing *Monkey Business* and *Horsefeathers* in the early 1930s. He was to win an Academy Award in 1950 for the screenplay of *Around the World in Eighty Days*. 
and if there was a financial need to cut the numbers to twenty-one, then they must be his musicians, not the musicians employed by the theatre\(^{295}\) (Farneth 2000, 225).

Consequently, the orchestra for *One Touch of Venus* required at least twenty-eight musicians. It comprised a sizable string section, woodwind, brass, orchestral percussion (including bells, celeste and vibraphone) and two pianos. As his orchestrations utilised the full complement of instruments for almost the entire score, Weill needed to be sure that the orchestral players were of a calibre to achieve the sound he required—in his orchestrations for *One Touch of Venus* the vocalist was part of the orchestra. Due to this intricate relationship between the voice and the orchestra, Weill used very little voice/instrumental doubling, a technique still used today to reinforce the vocal line. Indeed the vocal line often added harmonic embellishments at the seventh and ninth over the orchestral accompaniment, and will be discussed later in this chapter.

Weill used the orchestra as a tool to convey aural cues to the audience and to increase their enjoyment and understanding of the characters’ personalities and actions. One of his most effective techniques was the use of orchestral dynamics. When accompanying Martin, the orchestra was generally required to play *piano* or *pianissimo*, with the brass and the strings *con sordini*. Taken from the bridge section of “I’m a Stranger Here Myself”, Spectrogram 6—1 shows the dynamic extremes required by the orchestra as Martin moves from forceful *Sprechstimme* to narrative delivery. The orchestra’s *mezzoforte* can be seen behind Martin’s *fortissimo* singing at the end of the bridge section, increasing to a *fortissimo* orchestral sound at the beginning of the refrain’s next period. The sudden drop in orchestral intensity—combined as it is with the resolution of a perfect cadence—is obvious and dramatic. The audience has been driven to this high point by the increasing drama of the declamatory voice supported by the orchestra, only to be gently but unexpectedly returned to the tonic and the beginning of the song. This is an example of the sonic manipulation Weill employed to maintain and direct the audience’s attention.

**Martin’s Use of Vocal Styles in *One Touch of Venus***

One can cover…all the middle tones of the scale from pure speech to song-speech, recitative, half singing, and even pure singing. And with the aid of music one can enter the realm of fantasy and give speech to “superhuman” qualities which can only be referred to in the realistic theatre (Weill 1936, 64).

\(^{295}\) All theatres had house musicians who were used in the pit orchestra, but Weill felt that the only way to get the sound he wanted was to use musicians he knew and respected.
Weill composed four songs for Venus, all in contrasting styles. “I’m a Stranger Here Myself”, is a brazen and raunchy song which introduced Martin’s belt voice to the theatre public, while “Foolish Heart”, looked back to the traditional operetta and highlighted Martin’s classical phonation. “Speak Low”,—the most enduring song of the show—allowed Martin to combine her crooning techniques with traditional torch song stylings for the first time on stage. “That’s Him”, was written in an intimate, conversational style that became Martin’s signature delivery for the next fifty years. In November 1943, Martin recorded all four songs for Decca records. These were later released as part of a five-disc original cast album, although only Martin and Kenny Baker appeared on the album. Maurice Abravanel conducted the One Touch of Venus Orchestra and included the two ballets “Forty Minutes for Lunch” and “Ozone Heights”. Weill was very happy with the album, which was one of the first of its kind:

> It is very effective and beautiful to look at and one of the finest and most impressive recording jobs I have had…They are technically better than the Oklahoma! records, which are almost useless. I hope they sell well!296

All of the songs were recorded at least a minor third lower than the pitch of the vocal scores published in conjunction with the original production,297 and the duration of some of the songs was altered, presumably to allow them to fit them onto a ten-inch disc. Consultation of original source material held by the Music Library at Yale University298 revealed that on stage the songs were performed in a combination of the published and recorded pitches. Figure 6—1 shows the level of the point tessitura for each song as it appeared in the published scores, the recordings and the sketch material.299

The point tessitura of the published and recorded versions follows the same placement pattern with very minor differences. However the sketch materials, including the conductor’s score, show the point tessitura changing between each song. This pattern is

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296 Weill, 30 January 1944 (quoted in (Farneth 2000, 228).
297 “Speak Low” was recorded a fourth lower, but a copyist version with the same song structure as the published piano/vocal score indicates that it was originally intended to be published in E♭ major rather than F major.
298 These included the conductor’s score, orchestral parts, and copyist originals for the publication of the piano/vocal score; as well as Weill’s autographs and sketches.
299 The broken lines linking the discrete points clarify the relationship of those points to each other, and are not intended to imply what may happen between the points. They serve as visual indicators of the pitch of each song within its range, and their relationship to each other.
Figure 6—1: Point Tessitura of each song from *One Touch of Venus*, showing the similarities and differences in pitch of the vocal scores, recordings and sketch materials. Consistent with the distribution of point tessitura in productions where the live performance pitch is known, such as *South Pacific*. A changing point tessitura allows some respite for a performer, particularly one singing eight shows a week in an unamplified theatre. Figure 6—2 shows the conjectured range, tessitura and pitch tessitura for *One Touch of Venus*. Examination of these differences and the vocal requirements for stage and recording purposes reveals Martin’s developing vocal technique.

Figure 6—2: Conjectured actual performance pitch of songs in *One Touch of Venus*, taking into consideration evidence from sketch materials and conductor’s scores.
**Belt Style: “I’m a Stranger Here Myself”**

“I’m a Stranger Here Myself”, was Martin’s first song on the Broadway stage for four years, and the first song that the audience heard from Venus herself. With this piece, Martin established that she wasn’t “just a one song girl” and began her public transformation from naïve country girl to a sensual, sultry, sexy, laid back and powerful woman. The New Yorker critic Wolcott Gibbs described the song as “a neat, lyrical statement of Miss Martin’s queer predicament”, which barely penetrated this multilayered composition. Set in the same minor-keyed, slow-swing style that Weill had so successfully used in “The Saga of Jenny” (Lady in the Dark), “I’m a Stranger Here Myself” was published in G minor and recorded in E♭ minor, probably the same pitch it was performed on stage. The full score, sketches and copyist’s piano/vocal score are all notated in E♭ minor, as are the well-thumbed orchestral parts. The only copy at the published pitch is Weill’s autograph manuscript of the piano/vocal score. This is possibly an earlier version of the work, as there are changes to the lyric pencilled on the score, and the ending is far more understated than the spectacular final note found in the full score and recording.

The rhythm of “I’m a Stranger Here Myself” is complex—the opening four-bar vocal phrase establishes a pattern of syncopation, dotted quaver/semiquaver rhythms and crotchet triplets that reappear relentlessly throughout the song. The fluidity of this rhythm pulls at the tempo, reflecting and amplifying the hesitation and confusion felt by Venus in the modern world. Martin takes control of the rhythms and pushes them closer to the spoken inflection of the text. In the verses, she takes liberties with the pitch of the notes as well as their rhythm. The first verse suddenly moves from seductive, hot jazz rhythms, to a sweet, sentimental waltz without actually moving out of common time. It is almost a relief to return to the steady rhythms of the refrain.

The second verse forms an impassioned plea in recitativo style. Martin stays faithful to the rhythm of the words, but moves slowly away from the written melody; octave plunges at the end of each phrase occur as she increases tempo, pitch and vocal intensity until ultimately launching into declamatory Sprechstimme. Spectrogram 6—2 illustrates the intensity of Martin’s explosive vocal bursts. She slides up and down through one to two octaves at full volume, before pulling back to the more collected and

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300 Queer is used here in its traditional meaning of odd or absurd, rather than as a statement of sexuality.
sultry refrain.

In the closing bars of this piece, Martin unleashes her full belt voice for the first time, singing the same money note that Merman had been using for the previous ten years (C5 523 Hz). Although performing at the published pitch of G minor would have posed no difficulty for Martin using her legitimate voice, it would have made using belt phonation on a final E5 (659Hz) virtually impossible. The breakdown of Martin’s final note in Spectrogram 6—3 is shown at Figure 6—3, and reveals how Martin was able to cut through the full orchestral sound; despite directions on the conductor’s score for all instruments to play fortissimo and the brass senza sordini. The dominant second partial and increased amplitude in the third partial indicate the tuning of the first formant of the vowel. The second and third formants amplify the fourth and fifth partials. This is a pattern that maintains the integrity of the “e” vowel, and corresponds with the profile of the bright belt voice discussed by Sundberg et al (2010 and 2012).

As Figure 6—4 illustrates, Martin commences somewhat below the centre of the tone, and her pitch rises slightly in the last few cycles of the vibrato, alterations commonly used by classical singers throughout the century (Ferrante 2011). Until the final five

![Figure 6—3: Power spectrum of Martin’s final C5 on the word “self”, showing the strong resonance of all the partials. To separate the voice from the orchestra, this example was taken with LTAS of 300 msec. See also Spectrogram 6—3 and CD track 6—2.](image)
cycles, Martin’s *vibrato rate* remains at a constant 6.0Hz when it then increases to 6.3 Hz (Prame 1997 and Ferrante 2012). However, her *vibrato extent* narrows by one third (or ~20 cents) as the orchestral intensity grows, rather than as her *rate* increases. The narrowing of the *vibrato extent* focuses the pitch and, although the upward shift of the central pitch may not be consciously identified by the listener, it brings a sense of resolution and relaxation to the sound.

The effect of that spectacular final note on the establishment of the character of Venus within the play and, by extension, on audiences’ perceptions of Mary Martin outside the play, was integral to the development of Martin as a performer. In Weill’s previous work, *Lady in the Dark*, Gertrude Lawrence used a piercing tone at the top of her soprano range to create a deafening wall of sound, supported by the orchestra and male chorus. Martin’s soprano was too light to have the same effect, even at the much higher pitch that would be required to approach the top of her range. Had Martin used her soprano head voice, the character of Venus would have remained a classical figure—more goddess than human, more opera than Broadway—and Martin more an operetta than popular singer.

The vocal and dynamic climax of “I’m a Stranger Here Myself” segues immediately into the ballet “Forty Minutes for Lunch”, a scene which juxtaposes the otherworldly serenity of Venus with the impersonal frantic nature of American urban life. For this scene, Martin’s instructions were to consider herself the only sane person in the whole world, while all the others were mad or joyless. As Venus, she “moved legato, slowly and gracefully. The other dancers leaped around staccato, frantically” (Martin 1977, 113). Venus stays aloof from the crowd with only one exception—when she rescues a
harried office girl, and shows her how to be relaxed and ladylike. In so doing, the office
girl (danced by Sono Osato) gets her man (Hirsch 2003, 220).

Operettic Style: “Foolish Heart”

Glinting with alternating light and shadow, “Foolish Heart” is a high point of Weill’s
Broadway portfolio, a number in which the German composer takes on and holds his
own against not Mahler or Hindemith but Richard Rodgers, the master of the Broadway

In operetta and musical theatre, the waltz is often reserved for the heroine to express her
love for the hero, but in the song “Foolish Heart”, Venus questions herself and the
profane, free love that she has always known. The realization that her heart has over-
ruled her head, and will only let her love one man, is confirmed by the use of the waltz.

In a dramatic contrast to the earthier, declamatory style used in “I’m a Stranger Here
Myself”, Martin returned to her operettic roots in “My Foolish Heart”, singing a waltz
that could have been lifted straight from a Viennese ballroom. This impression was
intensified by the orchestral refrain accompanying dancers Sono Osato and Robert
Pagent, as they complete the romance initiated by Venus in the ballet “Forty Minutes
for Lunch”. The opulent orchestration, fast tempo (crotchet = 180mm), traditional
ternary form, and Martin’s use of classical vocal techniques and formalised diction all
identify this song as one from the operettic tradition. The piano/vocal score—published
in 1943 and based on an earlier Weill autograph—reinforced this relationship by
omitting the verse and accentuating the ternary form.

Although Martin recorded “Foolish Heart” in F Major, on stage the aural connection
with operetta was strong as sketch materials show that Martin performed this song at a
higher pitch of A♭ Major—as indicated by the conductor’s full score. The song’s
classical style was further enhanced by its lack of popular vocal stylings and the use of
portamento mirrored by the strings in the orchestral refrain. Set in common time with a
relaxed tempo, the verse is the only part of “Foolish Heart” that essentially belongs to
the musical theatre, rather than operetta tradition. Unlike the other songs in One Touch
of Venus, the voice is strongly supported by the orchestra, especially in the refrain when
it is doubled by the strings. The melody consists of a descending series of recitativo
phrases over shimmering, sustained, chromatic harmonies, accented with other-worldly
chords (See Figure 6—5).
Figure 6—5: “Foolish Heart” introduction in recitativo style over sustained chords.

The *rubato* speech rhythms of the verse combine with the seemingly static accompaniment to create a tonal and temporal hiatus that holds the audience in suspense and compels them to focus solely on Venus. Appropriately, this is the only time in this song where Martin uses a gentle chest voice before moving into her head voice. The refrain brings a sudden release, as the harmonies finally resolve to relatively uncomplicated tonic harmony and the pulse transforms into swirling waltz rhythms.

The *operettic* style of “Foolish Heart” strips Martin of her individuality as a performer. In this song she is just another soprano, perfectly capable of singing an in-tune, *legato* line, but with nothing to lift her performance out of the ordinary. It is perhaps a foreshadowing of her portrayal of the *prima donna* in Noël Coward’s *Pacific 1860*.
**Torch Song meets the Croon: “Speak Low”**

“Speak Low” was the most popular song from *One Touch of Venus*. It featured in seventy broadcast performances (including one by Frank Sinatra) in just one week, making it the most-played song on the radio for that period (Farneth 2000, 226). Since that time it has been recorded by numerous artists, including jazz luminaries Sarah Vaughan, Billie Holliday and Ella Fitzgerald. Crooners Bing Crosby and Tony Bennett as well as popular artists including Judy Garland and Barbara Streisand also released versions of the song. It has also been performed by artists better known for their classical repertoires. Soprano Anne Sofie von Otter sang two different versions: a lush, sensual, jazz duet with Svante Henryson on ’cello, and one in classical style accompanied by an orchestra of similar dimensions to the original scoring. Dame Kiri Te Kanawa also recorded it in a lush jazz setting.

The place of “Speak Low” in the American canon was recognised by the inclusion of Carmen McRae’s 1955 recording in the Smithsonian Collection of Recordings compilation *The American Popular Song* (1984) and by Martin’s original recording in the *American Musical Theatre* collection (1989). A recent publication by jazz historian Ted Gioia discusses the song’s place as a jazz standard and its harmonic suitability for improvisation (Gioia 2012, 391), and Allen Forte included a detailed analysis of the composition in his 1995 study on the American popular ballad (Forte 1995, 268ff). Described as Weill’s “paean to the passing of time, to the fragility and the joy of romance” (Hirsch 2003, 226) the song captured the romantic imagination of performers across vocal and instrumental genres. It entered the American musical canon immediately upon release, where it has remained for the last sixty years.

In this song, Venus and Rodney declare their love for each other after Venus (unbeknownst to Rodney) made his fiancée Gloria disappear. Described “as poignant an ode as any in the literature of the American musical”, “Speak Low” marks “the moment when the barber became utterly enchanted by the goddess” (Hirsch 2003, 226) and expresses the mesmerising effect the pair have on each other. It is gentle and sensual, with a melody that is both sustained and mobile, with smoothly agile leaps and cross rhythms creating a hypnotic, rocking effect. Martin’s voice is relaxed, low and soothing in her warm lower register, combining the soprano tones of the torch singer

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301 4-12 December 1943. Broadcast performances were live performances, not studio recordings.
302 Bennett’s latest recording of the song came in 2011 with Norah Jones.
with the depth and richness of her crooning style.

“Speak Low” was published in F Major, and Weill (a light baritone) sang it in that key, but the full conductor’s score, orchestral parts, composer’s piano/vocal score and Martin’s recording of the song are all in C major. It is therefore logical to assume that the recorded key is the same as what was originally performed on stage. At this pitch Martin was singing in the optimal part of her vocal range (G3-C5), enabling her to move easily and seamlessly between vocal styles and maximise the emotional impact of the song.

In both the orchestral score and Weill’s piano/vocal score, the tempo is marked *moderato assai*. The recording is at crotchet =120mm, the upper end of the usual *moderato* range and the accompaniment is very rhythmic. The short instrumental introduction, with the lower strings playing syncopated dotted rhythms under sustained woodwinds, prepares the listener for a very fast song (see Figure 6—6).

The entry of the smoothly sustained vocal line, floating rhythmically and harmonically above the accompaniment, strongly contrasts with the accompaniment and instantaneously shifts focus towards the vocalist. The rhythmic contrast between the accompaniment and the vocal line is maintained throughout the song. Harmonic contrast is created by the notes of the melody falling on the chord extensions, primarily the seventh and ninth. The harmonic independence of the vocal line (see Figure 6—7) is one of the reasons for the song’s continuing popularity as a jazz standard—it allows the vocalist to embellish the melody.

![Figure 6—6: Rhythmic accompaniment.](http://www.youtube.com/watch?v=cJGzEjCK_5g last accessed 7 October 2012.)

303 Judy Garland and Dame Kiri Te Kanawa also recorded “Speak Low” in C major.
304 This is a marking that appears in the copyist’s piano/vocal score which is qualified by “Slowly” in the published version.
Figure 6—7: The harmonic outline of the first period of “Speak Low” illustrating the harmonic independence of the vocal line from the accompaniment.

The first phrase (bars 4-12) sets the rhythmic and melodic motion of the entire melody, appearing four times in its complete form, unchanged except for the key change in the final refrain. The phrase is characterised by rising and falling fourths, crotchet triplets and its opening sixth, an interval which only occurs at the opening iteration of the main refrain periods. Martin’s strength and control in her lower register is particularly important in this song, as the first period of the refrain begins on the nadir pitch of G3 and ends only a tone higher on A3. The melody remains suspended between the tone above the song’s nadir pitch (G3) and the registral midpoint (E4) of the period for six bars, until leaping a fifth to the apex pitch (A4). The second phrase (bars 13-20) flows gently down in a stepwise motion ornamented by the same crotchet triplets and falling fourths, ready to step down to the nadir pitch at the upbeat of the next period. The crotchet triplet figure also appears in the bridge section, this time at the strongest part of the bar, transformed by pitch and rhythmic placement, from a soft

306 The score is provided in Appendix B, Music Example 6—1.
ripple of movement to a gentle cry of regret (bars 37-44).

The fluid melody relies on the suspension and release of dancing triplet crotchets rising to a sustained note, falling away and swiftly returning, creating an unhurried forward momentum in the melody. It encourages the addition of torch song stylings and Martin does not miss the opportunity to add stylised glissandi and gentle portamenti to emphasise the flowing melody over wide intervallic distances. Yet these additions were not limited to the wider intervals found in the melody, but also included the ornamentation of smaller intervals and note values, even between adjacent tones. Figure 6—8 illustrates some of the torch song stylings included by Martin between the tones of the densest line in the song.

The glissando markings, between the first two notes of the triplet figures in each bar, indicate that the movement between the notes of the interval is fully voiced and that vibrato is present throughout. Spectrogram 6—4 illustrates the structure of these glissandi and the way they bind the words together, which allows the internal rhyme of the lyric to appear on the accented beats of the bar. In this example, Martin is using her chest voice throughout the line. The intensity of the tone lies with the second partial, although the fundamental is clearly displayed and the resonance of the vowels can be seen in the partials above the orchestra. This is an excellent example of the successful combination of torch song and crooning styles by a highly-trained performer with a well-controlled voice. Martin is able to ensure the audibility of the sound, the clarity of the lyrics, the emotional intensity of the situation and character, and control over the pitch and rhythm.

“Speak Low” also gave Martin the opportunity to display her torch song/crooning style in a sustained, textually-bare section of the refrain, using embellishments to bind the notes together while simultaneously decorating the line. Figure 6—9 shows the

![Figure 6—8: Glissandi embellishing different widths of descending intervals.](image)

307 Usually an E4. More than 25% of all the tones in the song are E4.
glissando, fall and scoops that embellish four notes in the second half of the song and Spectrogram 6—5 illustrates the structure of the tones and the shape of the embellishments. This is very soft passage and very slow. Although only taking four beats, Martin applies a dramatic rallentando, halting the forward motion of the song. Once again she is singing in a gentle chest voice, as evidenced by the dominance of the second partial. The onset of her vibrato is immediate at “dar” and remains consistent through the glissando, where she falls slightly past the C4 to enable a scoop up to the exact pitch. As shown in the Spectrogram, Martin uses no vibrato during the scoop but as soon as she is at pitch her vibrato is even and immediate.

At this point it is clear that Martin is using vibrato as an embellishment to heighten the line’s emotional intensity. This technique was becoming more common in popular singing but was simultaneously falling out of fashion in the classical tradition. The Spectrogram shows a short break in the line (necessitated by voicing the “ng”) followed by a second scoop up to D4, this time without the accompanying drop in pitch. Martin again delays her vibrato until she is at pitch. What follows is a combination fall and scoop which provides a nuanced emotional connection between the words “I” and “wait”. This trademark torch song/croon embellishment—identical to that found in Helen Morgan’s performance of “Bill”,—heightens the intimate connection between the singer and audience.

The structure of Martin’s recording, shown in Figure 6—10, reflects the actual performance style as it appeared on stage. It is perhaps closer to the composition envisaged by Weill, rather than the simple AABA format found in the published piano/vocal score. The repetitive nature of “Speak Low” intensifies the sensation of being suspended within the contours of the song. The frequent reappearance of the unchanged phrases of the melody, strengthened by the phrases that do change and the

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308 As been previously discussed, Weill was a purist when it came to the performance of his music in theatres. He did however revel in the popularity of the different arrangements of “Speak Low” as a recording standard, as shown in his letters (Farneth 2000, 227).
omnipresent triplet motifs, create a familiar reference point for the audience. The melody floats over a long series of ii-V chords that reinforce the cohesion of the whole song. With so many elements providing unity in the song, Weill avoids the danger of insipid repetition through his elegant use of harmonic substitution (see Figure 6—7) and constantly changing orchestral colour, e.g. dotted, rhythmic strings over sustained woodwind, and lush, sweeping orchestral triplet arpeggios in the accompaniment.

Martin remains in her light *legitimate* voice throughout the refrain, only moving to her head voice at the apex pitches on “too soon, too soon” (bars 11-12 and 51-52) and in the final phrase of the refrain duet. This production change occurs by choice rather than necessity—as discussed earlier, Martin had already performed the same pitch in a ringing belt style on the final note of “I’m a Stranger Here Myself”. Martin’s use of a more classical production style at these climactic moments of “Speak Low” creates an association with the traditional romantic *operaetta* heroines, allowing her to present the human face of the goddess while promoting a personal connection between Venus and the audience. Martin makes a distinct change in her vocal production to strengthen this connection (see Spectrogram 6—6).

Use of the classical head voice is apparent in the first section of the Spectrogram (“too

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309 The form of “Speak Low” is laid out following Allan Forte’s suggested structure of periods, phrases and two-bar groups (Forte 1995, 271). While this mostly works for this song, it must be noted that the structure of “Speak Low” has been obtained from both Martin’s recording and scores found in the Kurt Weill Collection at Yale University, rather than the published edition.
soon, too soon”). Figure 6—11 shows the tone when it is fully voiced after the slow onset required by the almost lisping sibilant ‘s’ of “soon”, with the first and second formants clearly resonating the fundamental and the second partial respectively. The contour of the harmonics is almost identical to the same vowel at the beginning of Edith Day’s rendition of “The Indian Love Call” (see page 99). In the second part of the Spectrogram Martin begins a new iteration of the words “Speak Low”, and changes to her mixed register. The word “speak” is not declaimed in Sprechstimme style, but spoken with a short, explosive vowel and strongly marked consonants. This enables Martin to move to the next word rapidly without an accompanying scoop or glissando, and she voices the note through the ‘l’ of “low” before launching into the vowel. This time the first formant tracks between the fundamental and the second partial, and resonates both. The second formant of the vowel resonates the third partial, and the upperpartials are expanded by the third and higher formants, giving the tone an added brightness. This is very small example of Martin’s nuanced performance technique, demonstrating complete control over her voice and her awareness of the effect that small changes could impact upon delivery.

The final phrase of “Speak Low” is sung in duet by Venus and Rodney and reversed the traditional vocal roles of the love duet, where the soprano prima donna is allowed to

![Figure 6—11: Power spectrum of Martin singing “soon” in her classical head voice. See also Spectrogram 6—6 and CD track 6—6.](image)
revel in her spectacular high notes supported by the male voice. In this final phrase, Baker sings the melody while Martin sings an accompanying counter-melody. Baker’s part stays in the tenor range—at one point singing a major third higher than Martin—and is advantaged by the use of the familiar triplet figures. Martin still dominates the sound, although she quickly switches to a louder chest voice when Baker’s pitch drops back below hers (see Figure 6—12).

In the final climax of this last refrain, Baker finishes on an F4 and Venus on C5—the same note with which Martin spectacularly finished “I’m a Stranger Here Myself”. In “Speak Low”, and in keeping with the legitimate/torch song/croon style used in the rest of the song, Martin remained in traditional operettic style and finished in classical phonation.

The spectrograph of the duet is obviously more visually complex than the earlier solo refrains. When viewed in colour, it is difficult to clearly discern Martin’s voice but, when Spectrogram 6—7 is viewed in black and white resolution, Martin’s vocal line stands out more clearly against the background noise of the orchestra and the weaker partials of Baker’s light tenor voice. Both performers include a slight scoop from the onset of ‘m’ to the opening of the vowel ‘ee,’ Martin from only a semitone below the final and Baker from a major third. Not surprisingly, Baker takes longer to reach the

![Figure 6—12: Harmonic breakdown of showing intensity (dB) of each partial. Martin’s chest voice.](image)
vowel and lags slightly behind and below Martin’s vowel entry.\textsuperscript{310} His voice remains tense and strained throughout this climactic finale. In contrast, Martin’s vocal production is more relaxed and continues to dominate even as the orchestral sound increases. It is significant that neither Venus nor Martin was to be upstaged, or dominated, by a male co-star and for the next thirty years Martin dominated the stage, both vocally and personally, regardless of her role or the voices of her co-stars.

The Birth of Personal Style: “That’s Him”

The song embodied a tribute to normality—in sentimental Broadway mode, composer and lyricist assured wartime audiences that after all it is the little everyday things that count and that endure (Hirsch 2003, 228).

Martin performed “That’s Him” gracefully draped over a chair at the front of the stage, speaking directly to the audience and imbuing the performance with an intimacy normally reserved for the film screen. Venus descended from her pedestal—a beautiful star close enough to touch, ready to indulge in a tête-ê-tête with every member of the audience. Who actually made the decision for Martin to sit down has come under scrutiny in recent years.\textsuperscript{311} Martin claimed in her autobiography, and during her 1988 performance at the White House for Ronald and Nancy Reagan, that it was the price couturier Main Rousseau Bocher,\textsuperscript{312} named as payment for him to design her costumes for One Touch of Venus:\textsuperscript{313}

As Kurt played the introduction to “That’s Him”, I picked up a little chair and carried it over right in front of Main. I sat on it sideways and sang “That’s Him” right smack into those kind brown eyes. When I finished, Mainbocher said, “I will do you clothes for the show if you will promise me one thing. Promise me you’ll always sing this song that way. Take a chair down to the footlights, sing across the orchestra to the audience as if it were just one person (Martin 1977, 110).

Eleven years later Martin elaborated:

\textsuperscript{310} Baker sings a slightly flat F4 and Martin sings a slightly sharp C5. The resulting deviation from a perfect fifth is only a matter of a few cents, but it is just enough to alert the ear.

\textsuperscript{311} Agnes de Mille (in a 1991 interview) insisted that it was Lotte Lenya who instructed Martin to take the chair to the footlights (Hirsch 2003, 228). That said, de Milles’ assessment of Martin’s voice was not particularly accurate, which may cast doubt on the accuracy of this story recollected almost fifty years later.

\textsuperscript{312} Bocher founded the fashion label Mainbocher and designer of Wallis Simpson’s dress for her 1937 wedding to The Duke of Windsor. In 1940, Bocher moved his fashion house from Paris to New York.

\textsuperscript{313} Clothing was important, not only in the success of One Touch of Venus, but also the successful transformation of Martin herself from soubrette to a poised “woman of the world.”
He [Mainbocher] was in Kurt Weill’s very small apartment and he was sitting right next to the piano, so I really didn’t know what to do. So I looked around and I saw a chair… I just had him, right up against the wall, he couldn’t move. And I sat down, and looked right, straight at him and sang this…

This song was a defining moment for Martin, as the intimate rapport of her radio and recording experiences intersected with her stage experience, becoming a permanent hallmark for the remainder of her career.

“That’s Him” is the last song Venus sings before she flees suburban America and returns to Olympus. It is an intimate confession of a woman in love, asking and urging that friend to remember, “You know the way you feel…” As the quietest, most conversational song that Venus sings, “That’s Him” presents Weill with the opportunity to demonstrate his avowal that music is able to lift a “play immediately to a high level of feeling and make the spectator far more disposed to pursue the poetic line” (Weill 1936, 63). Nash’s lyrics are sophisticated and engaging, and require a high degree of intelligibility for the audience to appreciate the subtle nuances of the words. Martin’s intimate delivery, impeccable diction and delicate combination of the classical vocal style with the spoken word held the attention of the audience, making them believe that she was both an everyday woman and the goddess of love, while delivering Ogden Nash’s lyric naturally and effectively.

“That’s Him” is a deceptively simple ballad, sung by a goddess in love with a mortal. It is written in a straight forward ternary (ABA) form with an extended double period refrain. This is followed by a twelve-bar bridge section, which introduces contrasting melodic and rhythmic material, before returning to the double period refrain. The verse—an almost obligatory feature of musical theatre ballads (Forte 1995, 35) establishing the mood before the refrain begins—is omitted. Instead, Weill demonstrates his assertion that music “can establish the atmosphere of a scene instantaneously” (Weill 1936, 63) by evoking the confidential character of the song with just six chords. A series of swooping seventh chords gliding down the blues scale over an apparent tonic pedal provide suspense, while serving to focus the audience’s attention on Venus. The harmony settles, before moving to the dominant through the

preparatory chords of a suspended cadence. Weill maintains the sense of aural anticipation through the first eight bars of the questioning lyrics, before finally resolving to the tonic as Martin gently confirms, “That’s Him”.

Although it was common practice in sheet music publication to omit the verse and publish just the refrain, the copy editor made an attempt to “restore” the verse. The published version of the song begins with a three-bar introduction that superficially resembles Weill’s opening. The bridge section leads to the refrains, which are subsequently repeated without a bridge section to separate them musically or dramatically. In the published score, the music effectively began (harmonically, lyrically and dramatically) in the middle of the song. Martin’s 1943 recording needed to omit the final period of the second refrain in order to fit on a ten-inch shellac disc, resulting in versions of “That’s Him” with significantly different structures and dramatic qualities. An edition published in 1971 standardises these structural issues, although it is possible the song might have enjoyed more success as a jazz standard if the available sheet music had been accurate.

Although this song is quiet and intimate, Weill maintains the full orchestration, while carefully manipulating the instrumental combinations and dynamics to support Martin’s voice and drive the movement of the song forward. After the short introduction, all parts drop back to pianissimo. In addition, the violins (who play only on the G string) and brass are directed to play con sordini. The resulting sound is distant and thinner, with a much smaller and slightly muffled brass sound. Devoid of upper harmonics in the strings, this quiet tone enables Martin’s brighter mezzo-soprano to stand out, particularly on stage where the performance pitch was higher than in the recorded version. The second refrain restores a dense orchestral accompaniment. The brass are silent and the woodwinds play slow, sustained chords; but the piano plays two handed octave chords alternating between the lowest and highest parts of the keyboard. The strings double the voice rhythmically and melodically, creating a lush, romantic background that highlights and supports Martin’s vocal timbre.

Melodically, “That’s Him”, proceeds in recitative style with little intervallic movement, and Martin uses Weill’s rhythms as the framework for her conversation with the audience. Although staying firmly within the melodic structure, Martin’s voice barely

315 The 1943 recording was made in A Major, a minor third lower than on stage. This was probably to take advantage of Martin’s extensive microphone technique.
stays still; filling each melodic interval wider than a second with gentle glissandi, and inserting intimate giggles into many of the rests. These glissandi and semi-spoken interjections are strongly associated with both the earlier torch song style and the newer croon. “That’s Him” is an excellent example of Martin use of a hybrid style—it is neither as high in pitch as the torch singers nor as low as the crooners. Although the pitch has been lowered for the recording and Martin is singing in her middle register, she maintains her elegant legitimate production. The result is a slightly old-fashioned torch song sound reminiscent of Helen Morgan in Show Boat.

The first phrase of the bridge has a pulsating, static accompaniment. The woodwind and double basses reinforce the tonic, while the brass play sustained tonic chords that alternate between major and parallel minor harmonies (with added sixths) to build and release the chromatic tension. The piano acts as a musical fulcrum, supplying rhythmic support to the woodwind and harmonic support to the brass. A reduction of the accompaniment appears in Figure 6—13. The vocal part comprises descending minor seventh arpeggios separated by leaps of a minor tenth. Sprechstimme style is utilised for two eight-bar phrases—the first on the tonic minor and the second on the flattened subtonic. In the third phrase, the stylo recitativo vocal line sits above a sustained accompaniment, before moving gently over the same progression that introduced the first refrain and smoothly returning the audience to the same confidential delivery for the second refrain.

There is no surviving recording of Martin performing “That’s Him” on stage during the run of One Touch of Venus.\footnote{There is surviving footage taken from the wings of the theatre, but it has no sound. It is held by the New York Public Library.} There are however two later live performances: NBC’s March 1959 broadcast of Music with Mary Martin and the White House performance in 1988. In the 1959 telecast, Martin dressed in Venus’ flowing gown and performed directly to the camera, just as she had sixteen years earlier, although singing a tone lower (in G major) than the 1943 recording. In the later telecast, Martin (aged 72) introduced the song, recalling that it was one of her favourite songs from her fifty years in musical theatre; something that is evident in the fine detail she reproduces from her earlier performances. In a very intimate performance for Ronald and Nancy Reagan,\footnote{Martin had known both the President and his wife for many years before they entered politics.} Martin barely glances at the cameras while she sings, and Figure 6—14 shows her
attention focused exclusively on the audience sitting only a few feet away. While her voice betrays some sign of aging—her ability to move smoothly between registers is diminished, her range is lower, and her vibrato a little unsteady—her joy in performance is palpable.

Venus was a character conceived outside traditional musical theatre roles and demanded a change in the audience expectations of the female musical theatre performer’s vocal style. As such, Venus signifies the beginning of the transformation of female vocalisation in American musical theatre. Martin’s part in the development of the role reveals her comprehensive assimilation of contrasting vocal techniques, and establishes her position as the earliest proponent of an adaptable, integrated vocal style on stage.
The following chapter considers Martin’s continued development in three starring roles on Broadway, on London’s West End and on tour across the United States of America, tracing her evolution as the American Everywoman in Rodgers and Hammerstein’s *South Pacific*. 
CHAPTER SEVEN: FROM STAGE STAR TO AMERICAN EVERYWOMAN

Examining the ongoing establishment of personal vocal style in Martin’s stage career from 1946 to 1950, the first part of Chapter Seven is devoted to three productions that, while not as vocally integrated as One Touch of Venus, directly influenced the development of Martin’s vocal and public persona—Lute Song, Pacific 1860 and Annie Get Your Gun. Drawing on live and studio recordings, the second half of the chapter examines Martin’s construction of the voice of Nelly Forbush in Rodgers and Hammerstein’s South Pacific, a role which she played both on Broadway and in the West End.

This component of the research highlights essential aspects of Martin’s progress toward a cohesive vocal technique that enabled her to transcend traditional character portrayal in American musical theatre. The necessity for Martin to successfully combine a variety of vocal techniques supporting the depth of her physical characterisations is made apparent through the singer’s struggle to realise the demands of various theatrical personnel. Evaluation of the product of her consequential choices underlines her significance as an instigator of flexible vocal production.

Lute Song: A Post-Venus Acting Challenge

Both Lute Song and Pacific 1860 were written for me, but neither was the real me. The show I had dreamed of was written for somebody else.\textsuperscript{318}

\textit{Lute Song} is the season’s loveliest production and most charming failure.\textsuperscript{319}

Based on the fourteenth-century Chinese story \textit{Pi-Pa-Ka}, \textit{Lute Song} was adapted for the modern stage by Sydney Howard and Will Irwin.\textsuperscript{320} It is the story of Tchao-Ou-Niang, a young wife of two months, whose husband (Tsai-Yong) leaves her to seek fame and fortune as a scholar. Tchao-Ou-Niang cares for her husband’s aged parents until they both die of starvation during a famine. Cutting off her hair to pay for their funeral, begging and carrying her husband’s lute, she travels to find Tsai-Yong. Unbeknownst to Tchao-Ou-Niang, her husband has become a successful scholar and has married a

\textsuperscript{318} Mary Martin in (Martin 1977, 145).
\textsuperscript{319} \textit{Time}, 18 February 1946.
\textsuperscript{320} Sydney Howard won the Pulitzer Prize in 1925.
princess. Ultimately, the Gods intervene and Tchao-Ou-Niang is reunited with Tsai-Yong.

Produced by Michael Myerberg, directed by John Houseman, and described on the playbill as a love story with music, *Lute Song* opened at the Plymouth Theatre on 16 February 1946. The score was composed by Broadway newcomers Raymond Scott and Bernie Hanighen, and the music and songs were in no way integrated with the story. They were, as Lewis Nichols also reflected, “more of a product of twentieth-century America than fifteenth-century China…less *Pi-Pa-Ki* than tentative dinner music for a pack of hungry Broadway musical comedy lovers.” Nichols also observed that:

> the story [was] one stream, the design forms a second and the music a third, and too often they remain[ed] in their own courses rather than uniting to form a flowing river…[T]he simple telling of the story often is broken up by bursts of song, by incidents of pageantry. When it is so interrupted, the tale

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321 Houseman, famous for his collaborations with Orson Welles, later became the founding director of the Julliard School’s drama division.

322 Scott is better known as the composer of the music for the Looney Tunes cartoons and the founder of the world’s first electronic music studio, Manhattan Research.
is lost and has a tendency to become only quiet conversation between illustrative pictures.\textsuperscript{323}

It was universally praised for the beauty of the sets and costumes designed by Robert Edmond Jones, but generally criticized for “never quite catch[ing] the inner glow of art or the outward stir of theatre.”\textsuperscript{324} During its trial period in Boston it was described as “one of the riskiest theatrical experiments tried in the last decade…with a simple, fairytale-like atmosphere unfamiliar to most American theatre goers.”\textsuperscript{325} Once the show had opened in New York however, theatre critic Lewis Nichols opined that it was “honest, interesting, containing many values—and obviously…destined to cause discussion.”

A four-page photographic essay in \textit{Life} encapsulated the reception of \textit{Lute Song}, describing Martin’s performance as “simple and touching”, and the play as “a confused hodgepodge of exotic song and dance numbers.” The article then declares that the:

\begin{quote}

...timeless appeal of the story and the magnificent costumes and sets...[made] it a fascinating theatrical experiment...Jones’s zeal lift[s] American stage design to an art in its own right, with the result that critics now are wont to praise the scenery even when they pan the show.\textsuperscript{326}
\end{quote}

Not surprisingly, the majority of the photographs in the article are of set designs and costumes. Martin was described as a “revelation” and declared “an actress of dignity and grace”,\textsuperscript{327} and the article begins and ends with photographs of her. In the first, Martin stands gracefully, holding the lute. In the second, she appears in front of a tableau of the gods. The caption reads:

\begin{quote}

A vision of the gods comes to Mary Martin as the faithful wife who has supported her husband’s parents until their death. Because she is too impoverished to buy them more than a humble gravestone, the gods instantly create an imposing tomb. As a reward for her piety the wife finds her husband, lives happily ever after (\textit{Boston American}, 17 January 1946, p.56).
\end{quote}

\begin{flushright}
\textsuperscript{323} \textit{The New York Times}, 17 February 1946. \\
\textsuperscript{324} \textit{Time}, 18 February, 1946. \\
\textsuperscript{325} \textit{The Harvard Crimson}, 18 January 1946. \\
\textsuperscript{326} \textit{Life Magazine} 4 March 1946. \\
\textsuperscript{327} \textit{Boston American}, 17 January 1946.
\end{flushright}
In these photographs and their accompanying captions, Martin enacts the ideal of the perfect wife, directly in contrast to her previous role as Venus. Although reminiscent of the flowing gowns she wore in *One Touch of Venus*, the Chinese draperies Martin wears as Tchao-Ou-Niang are static, enclosing rather than revealing her femininity. Further distance from the hoydenish Venus was created when Halliday insisted that the end of the play be altered so that the Princess—whom Tchao-Ou-Niang’s husband had married—relinquishes any marital claim, thereby avoiding any suggestion of an unseemly relationship.

Tchao-Ou-Niang was the first role Halliday selected after becoming Martin’s full-time manager, and was very different to any of her previous parts. Halliday was “determined to make his Texas tomboy the most feminine, delicate person in the world.” Convinced that his wife had the ability to develop into a dramatic actress, he insisted she take the part, despite her reservations (Martin 1977, 118 and Davis 2008, 91). In addition to daily ballet lessons and exercise classes, Martin had twice-daily tutelage with choreographer Yeichi Nimura for three months, perfecting the liquid movements and intricate hand gestures the role required. Halliday was just as determined for Martin to be the star in *Lute Song*, even hiring the Russian designer Valentina to rework the costumes into lines he considered more flattering. These new costumes were not revealed until the final dress parade, causing deep offence and unhappiness amongst the production team (Davis 2008, 96). Robert Edmond Jones left the production after yet another alteration to his stage design, when Halliday insisted on a change of lighting for his wife’s climactic song at the close of the first act. Martin was to sing “Bitter Harvest” on a darkened stage, but Halliday thought the best dramatic effect would be obtained if she had her face lit by a spotlight. Director John Houseman agreed, and a spotlight followed her moves throughout the song before forming a bright halo around her face. The climax occurred as Martin dramatically pulled out a pair of shears which flashed in the light, and then cut off her hair, before dropping into the darkness (Davis 2008, 96).

As Lewis Nichols has suggested, music was not an integral part of *Lute Song*—each song suspended the action and concentrated the audience on the performer. However, the music did pay homage to the eastern setting, using a predominantly pentatonic tonality and instrumentation (light strings, flute and woodblocks) reminiscent of oriental sounds. With the exception of “Vision Song”,—which is in the major pentatonic—all Martin’s songs are built on the tones of the minor pentatonic scale.
Martin’s songs in *Lute Song* are generally slow, gentle and introspective, with “See the Monkey” the only exception. The melody of “See the Monkey” is sung in the relative minor pentatonic over a tonic I/V drone in the relative minor pentatonic, creating dissonance. In the cast recordings, she sings with a crooning voice reminiscent of the style she used in *Kraft Music Hall*. On the recording, all the songs are very short and the pitch is very low. “Vision Song” and “Bitter Harvest” share just one side of a ten-inch disc, and the songs (with the exception “See the Monkey”) are all transposed down a fourth from the published scores. Combined with the low pitch of the songs, this close recording indicates that the aim of this particular cast album was not to provide a faithful copy of the performance, but to appeal to Martin’s radio and recording audience.

Some of the composers sketch material differs from both the published piano/vocal scores and the recorded material. Figure 7—2 compares the point tessitura of the songs across the three sources, illustrating the extent of their differences. Although the published scores suggest a higher tessitura, and the pitches fit neatly into Martin’s most comfortable range, the transposition of a fourth specifically for recording purposes would not have been difficult for experienced pit performers. Without material

![Point Tessitura Comparison](image)

*Figure 7—2: Comparison of point tessitura across three different sources of Martin’s pieces in Lute Song.*

328 The discs were released by Decca in 1946 as a set of three in a decorative sleeve. After Martin’s success in *South Pacific*, they were re-issued in 1950 on a long play record.

329 This selection of Scot and Hanighen’s material is held at the University of Missouri in Kansas City.

330 “Vision Song” is an example of performance style altering the point tessitura. By adding a sustained final pitch note an octave higher than would be expected, the point tessitura rises by over a semitone.
evidence, it is impossible to determine the songs’ original keys. Excluding the quaver D5 at the end of “See the Monkey”, the range of the recorded material is only a tenth, with a point tessitura of D4. The lower range of the tessitura lies well under C4 (see Figure 7—3)—lower than any of Martin’s previous recordings or radio appearances. Although singing in a very comfortable part of her range, it is not a pitch that Martin is able to produce infallibly. Her vibrato in particular suffers in this relaxed style. In the lower, more conversational parts of the music, it becomes uneven and very wide, at some points up to 180Hz.

At a higher pitch (usually above G4) her vibrato is more even and narrows to between 50-65 Hz, an extent more consistent with her non-crooning recordings. It seems unlikely however that this was the pitch that Martin would have employed on stage as it is unlikely to carry far into the theatre. The awkwardness of her vibrato points to a lack of comfort with the pitch difficult to maintain over a sustained period.

“Mountain High, Valley Low” provides Martin with plenty of opportunity for gentle glissandos within the rocking melody. The climax of the song comes in the final bars where both the widest intervallic leap and apex pitch appear. This is followed by “See the Monkey”, which is sung in a contrasting light head voice with carefully enunciated words and pitched far higher than the other songs. The strain of singing over her

![Figure 7—3: Range, tessitura and point tessitura of the studio recording of Lute Song.](image-url)
*passaggio* causes Martin to move in and out of a constricted chest voice on the higher notes. “Where You Are” and “Vision Song” contain progressively more crooning techniques, including turns, *glissandi*, and slides. “Vision Song” is the only piece to exhibit a conscious separation of the chest and head voice, and it is only in “Bitter Harvest”—which Martin performs predominantly in a low and passionate chest voice—that her character’s desperation becomes apparent.

Martin’s appearance in *Lute Song* (her first after *One Touch of Venus*) did not result in the same level of success that she had enjoyed in the latter, but it was important to her development in several ways. The experience instilled in her the desire to work constantly at new and challenging music, while increasing her self-awareness as a principal player. Importantly, Martin began to make her own performance decisions, especially in relation to her personal appearance and vocal options. After *Lute Song* closed, she moved immediately to London to begin preparations for her next starring role as an operatic prima donna in Noël Coward’s *Pacific 1860*.

**Pacific 1860: An Operettic Cul-de-Sac**

[Mary Martin] has a nice, talking way with her and a tiny voice that would do better in a band-box setting. And surely it is a mistake…pretending that the character…is a world-famous prima donna.331

To celebrate the re-opening the newly repaired Drury Lane Theatre in December 1946, Noël Coward was commissioned to write the operetta *Pacific 1860*. Coward had specifically written the role of *prima donna* Madam Elena Salvador for Martin, calling her “a dream girl, quick and knowledgeable…[with] all the mercurial charm of Gertie [Lawrence] at her best with a sweet voice and with more taste” (Payn 2000 [1982], 69). But, although Martin thought that “every song he wrote was the most divine thing in the world”, she also considered they were not appropriate songs for her (Martin 1976, p132). Following a major argument regarding Martin’s costumes, Coward had changed his mind about Martin’s ability by opening night. As he wrote in his diary:

> “Mary, charming and sweet as she is, knows nothing about Elena, never has and never will, and although she has a delicious personality, she cannot sing.”

331 *The Sunday Times*, 22 December 1946.
She is crammed with talent but she is still too ‘little’ to play sophisticated parts” (Payn 2000 [1982], 73).

Difficulties with repairs to the theatre meant that the show was under rehearsed, and many considered it to be old-fashioned and “out of step with the new direction of post war musicals” (Rivadue 1991, p38). The first performance was greeted with disappointment by the critics, who lamented that while the operetta was an “orgy of good taste [there was] plenty of honest dullness in the very conventional plot.”

It was set on the fictional Samolo Island, “the best-dressed and best laundered Pacific Island ever known or imagined”, and ran for three and a half hours without “one scintillating line.”

The music was described as:

very pleasant and graceful and soothing and accomplished and full of perfunctory lusciousness, but all out of the stock-pot common to purveyors of pseudo-Viennese sentimentalities in waltz-time.

The fact that the theatre’s heating had not been repaired during the coldest London

332 The Observer, 22 December 1946.
333 Ibid.
334 The Sunday Times, 22 December 1946.
335 Ibid.
winter in a decade did nothing to encourage positive reactions to the operetta, its composer or its star. The show closed after only four months, losing 28,000 pounds.

Similarly to *The Great Victor Herbert*, Martin was leading lady in name only—her supporting cast members were all far more experienced in theatre and operetta. Even her on-stage entourage were “always getting together and Rosenkavaliering it over the diva”, a situation was made worse by Martin being the only American in the cast. She “was the only one who spoke Texas—solid, solid Texas” and had to learn how to sing in “English English” (Martin 1977, p134). She had worked for hours with Coward, developing the fast, clipped, voice that London audiences understood.

Inspired by her performance in *The Great Victor Herbert*, the role of nineteenth-century diva Elena Salvador could not have been more different from her previous stage roles. The range and *tessitura* (see Figure 7—5) was considerably higher than those parts, although lower than her earlier classical/swing recordings. Deprived of the support of the recording studio, her classical soprano voice was not developed or resonant enough

![Figure 7—5: Comparative chart of range, tessitura and point tessitura of Martin’s songs in Pacific 1860](image)

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336 *Ibid.* See also CD track 7-1 for an example of a supporting female trio.
to compete with her very experienced co-stars. Spectral comparison of Martin’s performance with other sopranos recording in similar circumstances provides clarification. Figure 7—6 illustrates the power spectrum of Martin singing ‘heart’ from the romantic “I Saw No Shadow” and a young Edith Day singing ‘town’ from “Alice Blue Gown” in 1920.

In this example, Martin is singing a third below the written pitch, resulting in a warm, but unsatisfactory tone that is neither operettic nor popular. In contrast, Day’s voice reveals evidence of formant tuning in the heightened amplitude of the second and third partials, a resonant strategy noted in classical singers by Donald Miller (2008). There is also a suggestion of increased resonance around the singer’s formant, although this may be a by-product of the recording itself. Figures 7—7 and 7—8 show a dramatic difference in spectral slope between Martin and an established soprano. Figure 7—7 indicates a precipitous spectral slope in “One Two Three”, a fast polka in which Martin’s clipped delivery interferes with her vocal production, even to the detriment of her sustained tones. A loss of 25dB over the octave leaves insufficient amplitude for the upper partials to be

![Spectral comparison of Martin and Day singing](image)

**Figure 7—6**: Martin (A above) and Day (B below) singing the vowel [A] at the same pitch on stage in Drury Lane. See also CD tracks 7—2 and 7—3.

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337 “I Saw No Shadow” was the only song transposed from the written score, possibly to allow her to sing a song in what was becoming her trade mark intimate style.

338 Although Day was recorded acoustically and Martin electronically, there is a clear difference in resonance strategy and spectral slope.
Figure 7—7: Martin singing an extract from “One Two Three”, from Pacific 1860, showing a steep spectral slope. See also CD track 7—4.

Figure 7—8: Soprano Sylvia Cecil singing an extract from “This is a Changing World” from Pacific 1860, showing a shallow spectral slope. See also CD track 7—5.
amplified further than the first formant, although the second partial is in a good position to be influenced by the second formant (McCoy 2012, 48). Unlike the example in Figure 7—5, there is no evidence of any resonance in the formant area; despite the lighter orchestrations used to accompany Martin, her voice is still covered by the orchestral sound. This is in complete contrast to the shallow spectral slope of Sylvia Cecil\(^{339}\) at Figure 7—8, whose voice powers over the full orchestra and where all of the upper partials are strongly resonant.

The Theatre Royal had the reputation for “flattering good actors and damning bad ones.” In the case of Mary Martin and *Pacific 1860*, it “magnif[i]ed\(^{340}\) the big player and diminish[ed] the player who [was] not big enough.” While Martin was certainly capable of singing the part, her voice was too light and her personality too gentle make an impact in the Theatre Royal. While Martin was devastated by the breakdown of her relationship with Coward—which was not restored until after the opening of *South Pacific*—she greatly admired him and freely acknowledged that he taught her a great deal about stagecraft and acting.

> It was he who taught me...how to really let go onstage...how to express emotion without feeling it so much that it absolutely destroys you...and he taught me how to cry on cue (Martin 1977, 134).

*Pacific 1860* stands out as a setback in the progressive development of Martin’s vocal style, but was nonetheless of great importance in her understanding of the significance of developing a stage persona. Her relatively unsuccessful return to *operetta* also reaffirmed her chosen career direction, while confirming that she was the best person to make artistic decisions regarding her own development as a performer. As soon as she had finished with *Pacific 1860*, Martin embarked on a national tour across the United States that would change her as a performer forever.

\(^{339}\) Cecil was a veteran of the D’Oyly Carte Opera Company and had also toured in the United States. She was almost fifty when this recording was made.

\(^{340}\) The Sunday Times, 22 December 1946.
Annie Get Your Gun: Stripping the Gears

“This was one of the first times a musical star had gone on the road in a role somebody else had made famous. Most of my family…and most of my friends thought I was crazy.”

![Mary Martin as Annie Oakley](image)

Figure 7—9: Martin as Annie Oakley in the national tour of Annie Get Your Gun (from a 1948 souvenir program in the author’s collection).

Dorothy and Herbert Fields created Annie Get Your Gun with music and lyrics by Irving Berlin. It was the only show produced by Richard Rodgers and Oscar Hammerstein II without a Rodgers and Hammerstein score, and was written specifically for Ethel Merman. Having sold out its two-week Philadelphian preview before opening night (Rodgers 1975, 249), it opened in the Imperial Theatre in May 1946 and ran for 1,147 performances before closing almost three years later. Annie Get Your Gun was the most successful Broadway musical for both Berlin and Merman; reviewer Robert Garland succinctly described its success after opening night:

> It has a rich romantic story which begins at the beginning, continues through the middle, and stops when it gets to the end. It tells, according to the rules, how ‘Boy’ Frank Butler meets ‘Girl’ Annie Oakley, loses her, then gets her

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341 Mary Martin in (Martin 1977, 147)
342 A buckled girder above the stage of the Imperial Theatre threatened the safety of anyone there, so a two week preview was organised in the Shubert Theatre in Philadelphia.
When Merman opened in *Annie Get Your Gun*, Martin was appearing in *Lute Song*, and was about to travel to London for *Pacific 1860*. After attending the premiere, Richard Halliday handed his wife a knife saying, “Cut your throat, Mommy. This is the part you have always wanted to play” (Martin 1977, 145). After seeing a performance herself, Martin agreed and decided that she was going to play the role. She gave her first impromptu performance while discussing the show during dinner at author Edna Ferber’s farm in Connecticut. Her hostess declared that she couldn’t possibly play *Annie* because she was “too feminine” and that “anyway, you can’t sing that way.” Martin picked up an umbrella, pointed it like a rifle and shouted “You cain’t get a man with a gu—nnn.” No-one had heard her sing like that before (ibid, 146).

Encouraged by her success at the dinner party and drawing from her experience as a hillbilly singer at the Crazy Water Crystals Hotel, Martin sang “Doin’ What Comes Natur’lly” and “You Can’t Get a Man With a Gun” for Rodgers, Hammerstein and Josh Logan at a second Connecticut house party (Davis 2008, 108-9). Her listeners were astonished, and while still appearing in *Pacific 1860*, Rogers and Hammerstein asked her to open *Annie Get Your Gun* in the proposed London season. Exhausted by homesickness, the stresses of *Pacific 1860* and her deteriorating relationship with Coward, Martin refused the offer. As an alternative, she proposed touring the show across the United States while Merman performed in New York, a proposal to which Rogers and Hammerstein agreed. This was the first time an established star toured in a role created by another well-known star who was (at the time) more renowned. Martin evolved from being a lovely opera singer speaking seven languages in a very high soprano to “stomp in boots, shoot guns, shout at the top of [her] lungs, [and] have a ball” (Martin 1977, 148).

Martin began rehearsals for *Annie Get Your Gun* in September 1947 under the strong direction of Joshua Logan. She had no intention of imitating Merman: “I have never been afraid to try anybody’s role, any other person’s part, if I thought I could do it …I wanted to create my own characterisation” (Martin 1977, 147). To make allowances for

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interpretative differences between Merman and Martin, Logan made changes to almost every line and phrase of the touring production—“only the broad strokes and the actual tempo of the music remained the same” (Davis 2008, 112). With Martin as a younger, more romantic Annie, the show became more of a girl-boy romance than a star vehicle. It was an intensely demanding role. The fourteen songs and reprises throughout the show required enormous stamina from the leading lady, and it was the longest period that Martin had to sing in the theatre using what she referred to as her full voice, a large, loud belt.

Martin on Tour

Go way back in musical comedy and Martin’s performance has no counterpart. It is a thing of such shining contagion that when the final curtain comes down, a feeling of real personal loss envelopes the audience. The touring company opened in Dallas to an ecstatic reception and toured for eleven very successful months—Kansas City, Omaha, Chicago, and Pittsburgh, before finally ending in San Francisco. Martin loved every moment of the show, “every moment of screaming [her] lungs out and ripping [her] throat apart” (Davis 2008, 122). By the time the tour ended, Martin had very little voice left—she had “stripped all the gears in [her] throat belting the big songs” (Martin 1977, 149). While recordings from the national tour are not extant, this study draws upon contemporary written accounts describing Martin’s voice. Biographer Ronald Davis—for whom a matinee performance during this national tour began a lifelong love of Martin and musical theatre—described her performance in Dallas:

Mary, her shoulder-length hair dyed a dark red, filled the stage with her inimitable sparkle, winning hearts with her impish laugh, and using her voice with abandon. She was coarse, she was tender; she was awestruck, she was in control. The “I’m an Indian Too” number … she made into a comic lark and a feast for the eyes. Mostly she was touching, fun, and romantic (2008, 117).

Audiences and critics concurred. John Rosenfield of the Dallas Morning News wrote that she “surprises us with a red-hot-mama style of her own … a distinctive personality,
not just a pretty warbler … She can croon and shout with the best of them.”

Full to overflowing houses followed the entire tour and any signs of vocal strain went unnoticed by critics. In June 1948, the reviewer in the *Pittsburgh Post-Gazette* wrote that:

> Pistol Packin’ Mary Martin was fired to new heights by *Annie Get Your Gun*. Nearly three hours aren’t half enough of Miss Martin’s Annie. It could go on and on, at least until malnutrition sets in (quoted in Davis 2008, 122).

By the end of the tour, Martin had endeared herself to a wide cross-section of the American theatre-going public and received a special Tony Award for “Spreading Theatre To The Country While The Originals Perform In New York.”

Even Joshua Logan—who initially had concerns regarding her ability to play Annie—was convinced: “Her performance made me a believer in the biggest way possible” (quoted in Davis 2008, 118). Martin’s performance also had far reaching effects on the future of *Annie Get Your Gun*. Movie director George Sidney had seen Merman play Annie in New York—he liked the show, but did not consider it to have any motion picture possibilities. When he saw Martin play the role in Los Angeles, he observed that “[s]he played the story so that you knew there was a character there, and the love story worked with her” (quoted in Davis 2008, 123). Sidney eventually directed the film version of *Annie Get Your Gun*, starring Betty Hutton as Annie, in 1950. Seven years after the film’s release, Mary Martin returned to the role of Annie Oakley, this time on television.

Martin played the role of Annie Oakley because it was a part that appealed to her on a personal level, enabling her to put more of herself into the role and to show the real Mary Martin. Significantly for this research, it also allowed her to display a facet of her voice that had barely been heard outside a radio audience. In *Annie Get Your Gun*, Martin proved to audiences, writers, composers and herself that she had the personality, stamina and voice to carry a large and demanding role. It was a turning point in the development of her vocal style, and *belt* became an integrated part of her performance resources.

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346 Quoted in Davis 2008, p.117
South Pacific: American Everywoman

If New York seems pleasantly relaxed and languid again, it is doubtless because “South Pacific” has opened successfully and has settled down to the quiet luxury of a long run. There is nothing more for any New Yorker to worry about now.348

Martin opened in South Pacific on 7 April 1949 at the Majestic Theatre in New York. It was based on the Pulitzer Prize-winning Tales of the South Pacific by James Michener, and written by Oscar Hammerstein II (book and lyrics), Josh Logan (book) and Richard Rodgers (music). Produced by Rodgers, Hammerstein, Logan and Leyland Hayward, South Pacific, was directed by Logan, with Salvatore Dell’Isola as musical director and orchestrations by Robert Russell Bennett. Its advance ticket sales exceeded $1 million and were the highest in theatrical history. Within four months, sheet music sales had exceeded one million copies and the show’s financial backers had fully recovered their investment. By January 1957—after both the New York and London shows finally closed and the national tours wound down—the show’s profit was close to $5 billion and the long-playing original cast album had sold more than a million copies (Nolan 1979, 160). The show won nine Tony Awards,349 nine Donaldson awards,350 the New York Drama Circle award for Best Musical of the 1948-9 season and the 1950 Pulitzer Prize for Drama.

The popularity of South Pacific was phenomenal. Performances were sold out for months in advance, and even cast members had difficulties procuring tickets. Lewis Funke reported that, even after eight months, the box office was still receiving three thousand mail orders every day and countless letters from the public pleading for particular dates.351 For example, a naval officer leaving for sea duty, or a young woman needing tickets by a certain date because she was due to have a baby. Funke reported the box office also received offers of bribes and gifts, ranging from cash to unlimited supplies of lobsters. When asked how he got his tickets, the heir to the Luckenbach steamship fortune reportedly joked “Oh, I just swapped ‘em for a couple of ships”. Funke described buying tickets for South Pacific as “a feat equal to Channel swimming, mountain climbing or shaking the hand of Joe DiMaggio.”

349 Best Musical, Best Male Performer (Ezio Pinza), Best Female Performer (Mary Martin), Best Supporting Male Performer (Myron McCormick), Best Supporting Female Performer (Juanita Hall), Best Director (Josh Logan), Best Book (Hammerstein and Logan), Best Musical Score (Rodgers), and Best Producers (Rodgers, Hammerstein II, Logan and Heyward).
350 Best Musical, Best Performance Actress, Best Director, Best Supporting Actor, Best Supporting Actress, Best Debut Performance (Pinza), Best Book, Best Score and Best Lyric (Oscar Hammerstein II).
The individual songs in *South Pacific* were instantly popular and very successful. As Howard Taubman complained:

> You have but to hear [the songs] plugged on the radio and on the jukeboxes to know that [they are successful] and your friends who spend the live-long day whistling them provide further and sometimes irritating proof.\(^352\)

By the time Columbia Records released the cast album for sale—only a month after opening night—recording artists had flocked to studios to put down their own recording. Frank Sinatra (“Bali Ha’” and “Some Enchanted Evening”), Eva Young (“A Cockeyed Optimist” and “Happy Talk”), Bill Lawrence (“Younger than Springtime” and “This Was Nearly Mine”), Bing Crosby (“Some Enchanted Evening”) and Perry Como (“Some Enchanted Evening”) were just some of the artists using *South Pacific* to promote their recordings on radio and jukeboxes across the United States.

**The Development of South Pacific**

It [*South Pacific*] will go down [in history] as a new successful blending of drama and musical comedy…as a landmark in the careers of composer Richard Rodgers and writer Oscar Hammerstein II…most of all, it will go down as the show that Mary Martin and Ezio Pinza were in together.\(^353\)

While the production and compositional partnership of Rodgers and Hammerstein lasted less than twenty years—beginning with *Oklahoma!* in 1943 and ending with Hammerstein’s death in 1960 during the run of *The Sound of Music*—they changed the American musical. When they began developing *South Pacific*, they could count more than fifty years of Broadway experience between them, working toward the complete integration of music, dance and character in the American musical. Rather than creating a musical that was merely a vehicle to display the talents of two stars, Rodgers and Hammerstein chose to craft *South Pacific* as a story about real people living in a real world.\(^354\) The location of the play on an island in the middle of the Pacific, where the plantation wives would travel to Australia for the summer\(^355\) provided the opportunity to explore the notions of “Other” from more than the simple “us” and “them” perspective. The three romances within the musical explored different aspects of “Other”: the

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\(^{353}\) *Life* 18 April 1949, p. 93.

\(^{354}\) World War II had made the Pacific Islands less exotic.

\(^{355}\) This nonchalant line from de Becque to Nellie heightened the perception of distance from home. The concept of a country on the other side of the world being closer to the island than America made the isolation of the American characters even more profound.
developing relationship between Emile and Nellie; the tragic interracial relationship between Liat and Lieutenant Cable; and the comic similarities between the Tonkinese Bloody Mary and seaman Luthor Billis. Hanging over the entire story was the dark cloud of war and the awareness of the brevity of life.

Rodgers was primarily interested in giving his characters the kind of musical treatment best suited to their particular role. However, he knew nothing about the music of the Pacific Islands, apart from the sound of the wailing steel guitar or marimba struck with a soft stick. He found both “entirely abhorrent”, and was concerned about the necessity of using those instruments to create the exotic world of South Pacific. Rodgers was reassured when Michener explained that there was no instrumental music of that kind in that particular area of the Pacific, and so shifted his approach to the score, giving “each character the sort of music that went with the particular character rather than the locale in which we found him” (Richard Rodgers quoted in Nolan 1979, 152). This process of weaving the characters’ personalities into their songs allowed Rodgers to compose a range of contrasting songs beyond the constraints of traditional musical comedy. The process worked, with many reviewers commenting on the well-drawn characters and appositeness of their musical treatment:

The principal characters are not musical-comedy types but sensitively drawn portraits of individual people…They are characters in a play but they are also figures of music…the music cannot be separated from the characters or the play. The music is most triumphant in the theatre. Once the curtain goes up on a guileless children’s song, everything else in this war-haunted idyll is stirring and inevitable.

South Pacific has the distinction of being the first musical written by Rodgers and Hammerstein with their stars already selected—acclaimed Metropolitan Opera bass Ezio Pinza and Mary Martin, who had just finished her eleven-month national tour of Annie Get Your Gun. Pinza was to play middle-aged expatriate Frenchman Emile de Becque, and Rodgers used his rich bass voice to develop a romantic and powerful character. Both the songs written for De Becque have sweeping melodies that could easily have come from the more traditional operetta stage, and each contributed to Pinza’s voice being described as “the most beautiful that has been heard on a Broadway

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Martin was to play Nellie Forbush, a simple navy nurse from Little Rock in Arkansas.

_Becoming Nellie Forbush_

We needed someone young, pretty and lively, who could sing well but not necessarily with an operatic range, and who could project the quality of unbelievable innocence. Oh, yes, and it wouldn’t hurt if she had a slight Southern accent (Rodgers 1975, 260).

Oscar Hammerstein II had known Martin since her “Audition Mary” years in Hollywood, and had carefully followed and encouraged her career. In _Annie Get Your Gun_, he and Rodgers had given her the opportunity to present an entirely new Mary Martin to the public. After eleven months of touring _Annie Get Your Gun_, Martin had exhausted her voice. When told by Rodgers that they would like her to play opposite Ezio Pinza, the thought of appearing on the same stage as an opera singer terrified her:

> My voice had sunk what seemed like several octaves from belting out the Annie songs so long. I remember saying to Dick Rodgers on the phone that night, “What on earth do you want, two basses?..If I was frightened at the thought of singing with Ezio Pinza. I was absolutely paralyzed [sic.] with fear the first time I heard him…Oh, what a glorious voice!..[I] telephoned Dick Rodgers to say he couldn’t, he wouldn’t, dare to put us together on the same stage (Martin 1977, 158-9).

Rodgers assured Martin that the score would be written without any duets for her and Pinza, and that she would have several months to prepare her voice. Despite her fears, Martin eagerly agreed to take on the role after hearing the first of the songs, allowing Rodgers and Hammerstein to create a character based on her personality, vocal talents and audience appeal. This in turn allowed critics and theatre audiences to wholeheartedly accept Martin as the all-American girl next door, “or at least the way it would be nice to have the girl next door look and act”: 359

> Mary Martin is our ideal, our dream, our faith. She is fresh, lively, humorous, useful and very, very good company. She is delightfully feminine and just a little hoydenish, so that we can enjoy her sex without being oppressed by it. When we take her out, we shall be the envy of all the

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359 _Newsweek_ 11 April 1949: 79.
In Nellie Forbush, Martin drew on the naiveté of Dolly Winslow and the naturalness of her film and radio personas; the sexual attraction of Venus and blunt honesty of Annie Oakley, creating a three-dimensional character that grew and developed before the audience’s eyes. The quality of Martin’s performance took some critics by surprise; Richard Watts Junior wrote of his delight in her performance, declaring:

[N]othing I have ever seen her do prepared me for the loveliness, humour, gift for joyous characterisation, and sheer lovableness of her portrayal of Nellie Forbush…Hers is a completely irresistible performance (Suskin 1990, 641).

Other reviewers did not stint in their praise of Martin’s depth of perception and ability as an actress. She was described as a “grand performer…effortlessly deft”, a “prodigious performer [who] has the grace to esteem the quality of a well-written character”, and one who “discloses a very decent respect for the innate modesty of a good-hearted American girl whose tastes are simple.”

Given Martin’s input into the character and development of Nellie Forbush, it is a difficult task now (as it was then for audiences and reviewers alike) to determine where Mary Martin leaves off and Nellie Forbush begins. It was the first time Martin had been closely associated with a character, and the first time audiences were able to share quite intimate glimpses of the “real” Mary Martin. Women’s magazines treated Martin as the “girl-next-door”, publishing naturalistic stories and photographs of her everyday life and emphasising her ordinariness in preference to her glamour. In the minds of the audience and the reading/listening public, the personalities of Mary Martin and Nellie Forbush were inseparable. Together they were the American girl next door, and they sang with her voice.

The Voice of Nellie Forbush

Nellie Forbush is a Navy nurse out of Arkansas, a kid whose musical background probably had been limited to movies, the radio and maybe a touring musical comedy. It gave me a chance for a change of pace, and the music I composed for her is light,
contemporary and rhythmic. Martin made three recordings of music from *South Pacific* during its run: the original US cast recording; a live recording made in the Theatre Royal Drury Lane in London on 6 May 1952; and two songs from the London cast recording, “Twin Soliloquies” and the “Finale”. The live recording—recorded on 16mm film stock for the Rodgers and Hammerstein Organisation and held on video tape in the New York Public Library—provides an invaluable insight to Martin’s vocal techniques prior to the general use of amplification in the theatre. All three recordings are included in the following analysis.

Martin uses three different voices in her portrayal of Nellie Forbush. The first, described by reviewers as “frisky”, “roisterous”, and capable of “blowing out the walls of the theatre”, became the one most associated with Nellie. It has been described by reviewers, audience and researchers as a belt voice, even though Martin sings much of the show in a bright, mixed voice and only changes to belt phonation at the climactic points of Nellie’s songs. Nellie’s second voice is a mature, crooning torch song used during the private moments of the show, especially those when she and de Becque are alone together. The third is the jazzy, comedic voice heard when Nellie takes to the stage in *The Thanksgiving Follies*. In terms of performance style, these three voices have more in common with Annie Oakley than any of Martin’s previous roles on stage or screen. More importantly, Nellie’s voice reflects her emotional state, rather than stereotypical musical comedy tropes.

The vocal range for the character of Nellie (see Figure 7—10) is very narrow in comparison to Martin’s earlier shows. The reasons for this are two-fold: the characterisation of Nellie Forbush as a simple, innocent country girl from Arkansas who had no experience of music other than popular idioms, and the strain of eleven months of *Annie Get Your Gun* lowering Martin’s usable range. Nellie marked a lowering of the tessitura from Rodgers and Hammerstein’s earlier leading female roles, and the adoption of a more natural belting style (Noonan 2006, 94-5). This is also the first of Martin’s shows where it is possible to be absolutely certain of the performance pitch of

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364 Rather than new London recordings, the US recordings of Martin’s four solo songs from the cast recording were issued in Britain.
367 Noonan describes it as “a belting style with an influence from radio crooners” and that Nellie’s tessitura also reflects a belting mode. As will be demonstrated however, this is not strictly correct.
Figure 7—10: Comparative chart of range, tessitura and point tessitura for Nellie’s songs in *South Pacific* as sung on stage in London. Note that this does not include the encore of “Honey Bun” (see Figure 7—11 for further discussion).

The songs (see Figure 7—11).

**Everyday Nellie**

I’m in love with a wonderful guy wears well, [on record] and Mary Martin’s rapturous way with it is worth the price of admission both to the show and the records.³⁶⁸

Nellie performs seven musical numbers in *South Pacific*, and is the main audience focus in all of them. Of these, the three songs most strongly associated with Nellie, and those which remained associated with Martin throughout her career are “A Cockeyed Optimist”, ³⁶⁹ “I’m Gonna Wash That Man Right Outa My Hair” and “A Wonderful Guy”. “I’m Gonna Wash That Man Right Outa My Hair” and “A Wonderful Guy” share the same narrow range, point tessitura and a very similar tessitura. Both are exuberant, loud, knockabout songs, and they reveal to the audience Martin’s reading of Nellie Forbush as:

what everyone likes to think the typical American girl is, innately intelligent if short on academic curiosity, straight shooting, honestly emotional and generously good humored…[showing] powerful emotions without

³⁶⁹ “A Cockeyed Optimist,” in which Nellie introduces herself and her outlook on life to Emile de Becque, will be discussed within the context of their relationship.
As such, they will be examined together as songs representing the carefree Nellie Forbush.

“A Wonderful Guy” is a love song carefully crafted by Rodgers to show Nellie as an “uncomplicated, unsophisticated girl, suddenly bowled over by a new emotion” (Block 2002, 283). Martin’s own reaction on first hearing the song captures the rapture with which she performed it every night:

It went straight to my head, my heart. I had to sing it, right that moment. I sat down on the piano bench next to Dick and began “I’m in love, I’m in love, I’m in love,” getting more and more excited, singing full speed ahead, waving my arms around. Finally I got to “with a WONDERFUL GUYYYYYY” and finished it—and clunk, fell right off the piano bench onto the floor. Dick Rodgers turned his head, looked down at me rather solemnly, and said, “Never sing it any other way” (Martin 1977, 160).

Originally written as a simple allegro waltz with its melody “all over the scale” to capture Nellie’s essence (Block 2002, 283), the triple time signature was the only part

\[ \text{Figure 7—11: Comparison of the point tessitura in the published piano/vocal score, the cast recording and a London performance of Martin’s songs from South Pacific. This is the first show where the performance pitch of the songs is the same as the published music, indicating a more “natural” placement of the songs.} \]
of the original waltz retained from the classic *operetta* love song. Its energetic simplicity directly contrasts with de Becque’s sophisticated love song “This Was Nearly Mine”, which takes the classic *operetta* form with long sweeping phrases and swooping melody. Outlined in Figure 7—12, the structure of “A Wonderful Guy” is deceptively simple. It begins with an extended verse of three melodic periods, each slightly different from the one preceding.

The changing rhythms and rising pitch underline Nellie’s growing confidence and joy in the decision she has just made. The verse opens with Nellie defiantly listing the reactions from her fellow nurses when they discover that she has not ended her relationship with de Becque as she had previously and vehemently stated. Each of the first two parallel periods consist of a sixteen-bar question (8 bars) and answer (8 bars) passage between Nellie and the orchestra. Nellie’s melody is a repeated, two-bar motif

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<th>Introduction 1-4</th>
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<td>Verse:</td>
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<td>A 5-20</td>
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<td>B 37-52</td>
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<td>B 53-68</td>
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<td>C 69-84</td>
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<td>Re refrain:</td>
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<td>B 33-48</td>
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<td>A1 49-60</td>
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<td>C 61-68</td>
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<td>Dance 69-116</td>
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<td>A1 117-128</td>
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*Figure 7—12: Melodic structure of “A Wonderful Guy”.*
built of relentless crotchets moving from the tonic to the minor third and returning: ||\(C4\ D4\ |\ E4\ C4\ |\ C4\ D4\ |\ E4\|\). The tension created by the static melody and driving accompaniment is heightened by Martin’s strong pugilistic stance at centre stage, and her short, tight enunciation of the lyrics.

In the second section, the melody modulates to the tonic major and widens to a range of a minor sixth. The crotchet rhythm slows to minims in the first phrase (\(\frac{\|\|}{\|\|\|\|}\)) before returning to crotchets in a smoother melodic movement than in the preceding period. The driving accompaniment of the first phase resolves to sustained strings. This leads to an emotional release, reinforced by Martin removing her hands from her pockets (although they are still clenched) and facing the audience in a less aggressive stance. In the final component of the verse, Martin relaxes her stationary pose and strolls forward to sit, elbows on knees, to include the audience in her trademark conversational manner and open the refrain.

The refrain uses the same simple crotchet rhythm and tempo as the beginning of the verse, but Martin’s relaxed physical and vocal delivery, combined with the constant stepwise movement of the melody though the entire vocal range of the song, changes the mood from defiant tension to relaxed joyfulness. Martin uses the same short, clear delivery as she did in the verse, using numerous clichés for elated happiness before breaking into a rapturous “I’m in love, I’m in love….”, and standing head thrown back, arms and legs outspread. Martin choreographed the simple dance interlude that follows the first refrain, and it grows logically from her personality and happiness, reinforcing Nellie’s natural authenticity and connection with the audience.

Martin uses a bright, piercing head voice in the London Drury Lane production of South Pacific, but freed by studio technology from the necessity of singing over the orchestra, returns to a warm, round head voice in the cast recording. This foregrounding of Martin’s voice creates an intimacy not possible from the stage, even though according to Howard Taubman’s review of the newly released album,

it [was] difficult to listen to the recording…without summoning up memories of the show in the flesh…and the original cast does them more agreeably than most of the other performers who have attempted them in the
may releases that have been placed on the market since the show opened.\footnote{The New York Times, 22 May 1949, X8.}

Although made less than two weeks after the opening of the show, Martin considerably altered her vocal delivery for this cast recording, including a slight slowing of the tempo to accommodate the changes. Viewing the recordings through spectral analysis highlights the alterations, and Spectrogram 7—1 provides a starting point for their clear description.

The first (and most obvious) difference is the balance between Martin’s voice and the orchestra. In the live recording, the orchestra dominates the voice in the lower frequencies (seen at the bottom of the spectrogram) making it difficult to visually differentiate between the voice and the orchestra. In the spectrogram, the regular chords played by the harp appear to be particularly resonant. In the studio recording, only low frequency sounds from the orchestra are visible at the very bottom of the spectrogram. Even then, the orchestra has far less intensity that the voice, allowing for a much clearer picture of the voice itself. The orchestra’s masking of the singer’s lower frequencies mean that the higher frequencies of the voice become dominant, giving it a brighter, more distant, and edgier tone. When the lower frequencies of the voice dominate the orchestra, the voice appears closer and fuller, with a more rounded tone.

In both the live and studio recordings, the frequencies for all the vowels are visible up to 5000Hz, although Martin’s enunciation of the lyric on stage is quite different from the studio. On stage, she emphasises the consonants, minimising the length of the vowels and shortening the duration of the note values. This imparts a crisp clarity to the words and ensures they are easily understood. The spectrogram shows the extent to which each word is separated from the next, and that the clearest formation of the vowel occurs at the beginning of each syllable.

In the cast recording, most of the words are separated and her consonants are clear, but Martin places far more emphasis on the vowel shapes and sustains the notes to their full written duration. This allows for some vibrato and supports a more legato technique, such as at “say I’m” and “na-ive” where there is no cessation of the sound between vowel changes. Also apparent in the spectrogram is the rubato that Martin applies in the studio version, slowing to give more emphasis to the vowels and allowing for the addition of crooning slides on many of the words. In contrast, the tempo in the live
recording is metronomic in its exactitude.

The comparison spectra of Martin’s vowels in the live and studio recordings of both “A Wonderful Guy” and “I’m Gonna Wash That Man Right Out of My Hair” reveals an unexpected (but consistent) difference in spectral output for the same vowel. The power spectrum at Figure 7—13 shows the two versions of the same vowel from “I’m Gonna Wash That Man Right Out of My Hair”, revealing the appearance of a different harmonic spectrum for each. While both examples show evidence of the first formant tracking partials two and three in reflecting Martin’s use of her chest voice, this is where the similarity ends. The blue line (from the studio recording) appears to follow the resonance pattern of the spoken vowel; the second formant resonating the sixth and seventh partials, with the third formant adding little effect. In the live performance the first formant appears to be tuned to the third and fourth partials and the second and third formants move closer together, creating the strong resonance in the singers’ formant area (eighth partial).

This is a very clear confirmation of Martin’s awareness of the need for careful management of vowel shaping, as well as the sophistication of her vocal technique at the end of the 1940s. This ability to seamlessly alter her singing style dependent on

![Figure 7—13: Comparative schematic spectra of the vowel from the word “man” in the live (black) and recorded (blue) versions of “I’m Gonna Wash That Man Right Outa My Hair”.

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performance media was not shared by performers such as Ethel Merman, Helen Morgan and Edith Day.

**Nellie and Emile**

Her songs were colloquial, direct, sunny and youthful, whereas his were sophisticated, romantic, even philosophical (Richard Rodgers, 1975, p.261). 372

The first time the audience meets Nellie Forbush in song is her philosophical explanation of life to de Becque in “Cockeyed Optimist”. In this song, Nellie reveals both sides of her nature to de Becque and the audience: the simple country girl singing in a clear, lightly-belted mixed voice, and the gentle mature woman singing in a lyrical torch style. Martin alternates between the two vocal styles for the words sung to de Becque, and those sung to the audience. When she looks at de Becque (who is on the other side of the stage) her voice is softer and warmer, requiring the audience to listen very closely to hear what she is saying. When she sings disparagingly of herself, she looks into the auditorium while adding the extra resonance needed for the audience to easily distinguish the words she is singing. Nellie exists simultaneously in the private and public worlds, and she defines them through her vocal technique. This phenomenon is evidenced by the *tessitura* and *point tessitura* of the song (see Figure 7—10), which shares the lower *point tessitura* found in the other private songs, but has a *tessitura* consistent with Nellie’s exuberantly belted numbers.

In the studio recording, Martin performs in an intimate torch/croon style throughout the song, while the close microphone allows the listener to hear her breathe as she sings. The contrast between the two recordings is shown in Spectrogram 7—2. While sharing some of the same differences seen earlier in Nellie’s ‘I am’ songs, they also show Martin’s very different approach to the song in the studio. In the live recording (above) the change between the private mode and public mode are very obvious. Martin’s voice is barely discernible in the private mode, but in the public mode shows far more resonance in the upper partials. These alternating phrases continue throughout the song. In the studio recording (below), Martin alternates between a sustained, resonant timbre and a lighter, separated tone, as well as utilizing dramatic tempo changes to create the expected contrasts between the phrases.

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372 Speaking of performance styles for Nellie and Emile.
**Twin Soliloquies**

Richard Rodgers had promised Martin that she would not have to sing a duet with Ezio Pinza. Her experience in *Pacific 1860* had certainly confirmed to her that her classical voice was not able to compete on stage with such a powerful operatic voice. Since a romance such as Nellie and Emile’s would not be complete without a duet between the lovers, Rodgers created “Twin Soliloquies”, a form of duet where both characters reveal their inmost thoughts to the audience separately, with no need to balance their two very different vocal styles (see Spectrogram 7—3).

In this comparison of Nellie’s first phrase (above) and de Becque’s answering phrase (below) it is clear that, had they been singing simultaneously, Martin’s voice would have been completely overwhelmed by the rich resonance of the bass voice, especially when the two shared the same melody. Instead, a focal point is created on each side of the stage, and each performs in isolation, completely unaware of what the other is singing. In the spectrogram, it is also apparent that Martin’s vocal technique is very resonant; although it is more detached than de Becque’s smooth legato, there is none of the country in this side of Nellie.

Martin uses this voice when Nellie sings in the company of de Becque and also when she is thinking about him. This is particularly noticeable in the two short reprises of “Some Enchanted Evening”, which the characters sing together. It is poignant, delicate and unforgettable, an idée fixe representing the place where Emile and Nellie’s characters come together, both literally and vocally. In both reprises, Martin uses an intimate vocal style in a warm, rich chest voice, which complements de Becque’s gentle bass voice.

**Character-within-a character**

“Honey Bun” holds a unique place in *South Pacific*. Nellie performs the song with Luther Billis (who is dressed in a wig, a skirt, two half-coconut shells and a tattoo of a dancing sailing ship on his stomach) in *The Thanksgiving Follies*—a show-within-a-show. It is the only song in *South Pacific* that does not further the plot or help to develop the characters that sing it, although it does provide a comic contrast to the far more serious actions that surround it. In Brooks Atkinson’s words, “Honey Bun” is the only surviving “trace of the old hokum…[the] one relapse into the original sin of the
song-and-dance stage”. Martin/Nellie performed it dressed in an oversized sailor’s uniform and the song showcased Martin’s not inconsiderable comedic skills, which became well-known through her appearances in Annie Get Your Gun. The image appeared as a lively caricature drawn by Al Hirschfeld for the The New York Times, just prior to the opening of the show, and a few weeks later in photographic form on the cover of Life. (Appendix D page 391). It was an image that remained associated with Martin for many years, and she appeared in the 1980 Royal Variety Performance wearing the costume and singing a personalised version of “Honey Bun” with her son, Larry Hagman.

As previously discussed, all available evidence indicates that the songs in South Pacific were performed at the pitch published in the piano/vocal score. If so, “Honey Bun” has the highest range of all Martin’s songs in the show. Examining the cast recording, an unwritten quaver (D5♯), sung by Martin at the end of that recording was the only note above C5 that she sang in the entire show. However, the encore of “Honey Bun” (which was not included in the cast recording,) modulates to G5 major, a minor third higher than the rest of the song. When this encore is included in the tessitura and point tessitura calculations, Martin’s vocal range for both the song and South Pacific increases to F5, and the point tessitura of “Honey Bun” becomes the highest of the show. That said, it is only slightly higher than her two signature numbers and, given that she had previously taken the harmony option under the ensemble in the closing of “I’m Gonna Wash That Man Right Outa My Hair”, it is possible that she did not sing the final D5♯ in the closing bars just as she had previously taken the harmony option under the ensemble in the closing of “I’m Gonna Wash That Man Right Outa My Hair”. For this reason, the graph at Figure 7—10 does not include the “Honey Bun” encore.

The tessitura of “Honey Bun” is multilayered in both the encore and the recorded version (see Figure 7—14). In the encore, eighty-five percent of the voiced beats fall in the perfect fifth between G4♭ and D5♯, but sixty percent of those voiced beats (fifty-three

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373 The New York Times, 5 June 1949, XI. Brooks Atkinson wrote multiple reviews of the original South Pacific, including this one two months after opening night. Each review offered insights into different aspects of the show, the music, and the cast and music theatre in general.
374 The picture appeared above an article on the show by Joshua Logan on 3 April 1949.
percent of all voiced beats in the encore) fall in the Major second between A4 and B4.

The recorded version also has a two-part tessitura, with seventy-seven percent of voiced beats falling between the major third E4 to G4, and sixty-three percent of those (fifty-one percent of the total voiced beats) falling within a tone (E4 to F4). When the two are combined, the tessitura is normalized to E4-B4, also a perfect fifth, and a third lower than the tessitura of the encore. The normalization of the tessitura balances the vocal requirements of the song and indicates that the two sections of “Honey Bun” were intended to be sung together rather than separately.

That Nellie is playing a character is underscored by the different vocal technique that Martin employs in “Honey Bun”. By this time in the second act, the audience is accustomed to Nellie’s public and private voices: the bright, piercing head/belt voice of her “I am” songs, and the richer torch/croon style that she uses when with Le Becque. However, “Honey Bun” reveals a third mode that sees Martin belt and swoop in a red hot mama jazz style reminiscent of older, comedic vaudevillian songs she had performed on radio with Bing and Bob Crosby. It is a boisterous and rather ostentatious style allowing Martin to grind and grate her voice, even occasionally cracking on the upper pitches. The song itself has a simple popular ballad structure, a brief introductory verse, a traditional refrain in ||:AABA:|| ternary form and a raucous coda. The refrain and an extended coda are repeated a minor third higher by Martin, Billis and the
ensemble. Martin finishes with the loud belted phrase appearing in spectrogram 7—4. Unlike her “I am” songs where the final phrases are clear unadorned tones, the final phrase in “Honey Bun” includes jazz slides and mordents — another feature that separates the character-within-a-character from the straightforward Nellie Forbush. In South Pacific, Mary Martin succeeded in blending her own public persona with that of the character she was playing, moving effortlessly between vocal styles to create a seamless dialogue between Nellie, other characters and the audience.

Underscoring the refinement of her theatrical and vocal persona throughout the decade, this part of the research highlights Martin’s formulaic construction of female roles on the American musical theatre stage through a multi-faceted approach. The maturity of Martin’s performance quality became underpinned by a sophisticated vocal technique enabling convincing characterisations in her choice of roles. The following chapter moves from the stage to the new broadcast medium of television, exploring Martin’s placement at the forefront of entertainment in the 1950s.
CHAPTER 8: THREE CASE STUDIES EXAMINING MARY MARTIN THE TELEVISION STAR

What an extraordinary medium. It is hard to imagine all those millions and millions of people all looking at me at the same moment.375

The following paragraphs examine the impact of television on aspects of female vocalisation through three of Martin’s television appearances—*The Ford 50th Anniversary Show* in partnership with Ethel Merman in 1952, the live broadcast of *Peter Pan* in March 1955, and later that year the variety performance with Noël Coward—*Together With Music*. Background contextualising the development of television and its effect on the delivery and reception of entertainment is offered, as well as an outline of the performative changes required for artists successfully transitioning to the intimacy of television.

The examination of Martin’s television performances provides categorical evidence of this singer’s flexible and fully integrated vocal technique and her successful accommodation of the evident demands placed on performers by advancements in communication technology. Martin is shown to move seamlessly between intimate, personal and public communication within this medium, while making technical adjustments to heighten the effectiveness of her voice in performance. This component of the research also underlines the difficulty faced by performers unable to acclimatise to the emergent vocal and performance challenges of the period.

Enter Television

Television is a ubiquitous part of everyday modern life; at the touch of a fingertip, it brings the world directly to viewers in their homes, workplaces, on public transport, in cafés and shopping centres. While many households own multiple television receivers, it is possible to watch television programs on desktop computers, laptops, iPads and telephones twenty four hours a day. It is only sixty years since television made its spectacular entrance, yet it can be difficult to imagine how magical this new combination of radio, stage and screen appeared at its commencement.

Television heralded the most dramatic change in the delivery and performance of entertainment since the development of radio and the talkies. People no longer had to leave their homes to experience the magic of Broadway, and could enjoy the talents of

the world’s best entertainers in the sanctuary of their own lounge rooms.

I come home all beat out every night—and all I have to do is sit there and relax and watch television. Doesn’t take any effort. And it’s better than the movies—you don’t have to go out, and if you don’t like what’s on, you can switch it off (Graham 1954, 170).

As with radio twenty years earlier, television gave the general public access to vaudeville, Broadway musicals and theatre—it was no longer necessary to travel long distances, queue for expensive tickets, dress for the theatre, peer at tiny figures from the balcony, or strain to hear every word. Now the performers were in your own living room, in living colour, at least for those inside the broadcast area. The delivery and experience of entertainment changed, and to accommodate the greater levels of intimacy allowed by this new technology performance styles had to adapt.

Hailed as the “greatest medium of entertainment ever to have been discovered” (Kaufman 1955, 10), television swept like wildfire through American society. In 1951, after only three years of operating on a substantial scale, there were approximately ninety-seven television stations in the US (Seldes 1952, 9), and the number of households with televisions had risen to 10,320,000, up from 3,880,000 in 1950. By the end of the decade, eighty-six percent of households owned at least one television set. It was a child of the American culture. We are too much governed by our children in our doting land: this is a child whose growth is so lusty and whose powers are so formidable that it may assume a more and more dominant role in forming the basic nature of American habits, just as the combustion engine has transformed a civilisation within little more than a half century out of all recognition. Television, within a little more than a decade of its actual use by the public, has penetrated every quarter of America (Elliott 1956, 15).

The breadth and rapidity of the take-up of television across the community sparked concerns regarding its effect on the general population. Social scientists conducted extensive research throughout the 1950s to establish who was watching television, what effects viewing might have, and where those effects would most likely materialise. Researchers generally agreed that television viewing was recreation-oriented, passive-

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receptive and mentally undemanding; viewers most likely to accept television could be distinguished by a non-college education, a small to medium income and passive recreational habits (Graham 1954, 168).

Further studies showed that higher socio-economic groups were more likely to own televisions sets (in part due to their ability to afford them), but that less privileged groups spent more time in viewing; holding more favourable opinions about television and showing a greater inclusion of television in their lives (Coffin 1955, in Geiger and Sokol 1959, 175). Researchers at Boston University identified a wide range of leisure activities being curtailed in preference to television viewing—radio listening, motion picture attendance, reading, visiting friends, attendance at sporting events, working at hobbies, going to dances and parties, and sleeping were all affected (Sweetser 1955, 82). Television was mass media, but unlike motion pictures and stage productions it was not delivered to a mass audience *per se*, but played to an intimate audience of perhaps five or six people. “Every television program,” wrote American writer and cultural critic Gilbert Seldes, “is in a sense an invasion; you turn on your television set and someone comes into your living room, and you tune in one station or another according to whom you want in your room at any particular moment” (Boddy 1990, 82). To succeed in this intimate media, writers and actors needed to learn new skills. In his manual for television writers, Seldes found it necessary to include a lengthy description of television viewing in the home. While the scene perhaps differs from the current day, it is essential to remember the author was describing new cultural behaviour:

At home, television is seen in the principal room of the house or apartment…The people watching are as comfortable as they can make themselves in their own homes; they are as congenial as a family-and-friends group can be. [T]hey comment on what they see but usually refrain from sustained conversation on other subjects…The room in which they sit is a rectangle, squarish in outline, with the receiver in a corner or against a wall, and the viewers are grouped around it according to the idiosyncrasies of their vision…the room is fairly dark.

[The viewer] sees, primarily…people or objects in two dimensions which do not seem to him flattened out; he sees walls and windows behind or beside them; he sees people crossing a room or going from the front to the back

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377 Graham also included movie attendance, radio listening, fiction reading, and cursory reading of newspapers as passive recreational habits.
and, as he has the feeling of depth in the picture, he assumes that the moving people are surrounded by air and space. The figures may be five or six inches high and at other times their faces may be nearly twice as large as any human countenance he has looked on—he generally feels that these people have the average normal proportions. Their voices reverberate more than his own without making him uncomfortable.

The viewer sees all portions of the picture presented to him equally;…watching a performance on the stage the spectator’s eye is attracted by whatever is happening at a given spot and, while…all of the stage may remain in his vision much of what he sees is on the fringe. In television he sees whatever is placed before him—the whole rink or the goalie’s legs, the twenty people in a mob scene or the hero’s lips approaching the cheek of the heroine (Seldes 1952, 19-20).

Television actors were advised to visualize the conditions under which their performance would be viewed and to remember that they were “coming into a home and joining an intimate family group.” They must be what they were representing; because there was “no place for acting here” (Donald Curtis quoted in Boddy 1990, 82).

Television, in particular live television, provided “a degree of intimacy that can never be achieved on stage…it allow[ed]…the incalculable advantage of realism” (Chayefsky 1955, 45). Writers such as The New York Times’ John Gould insisted live television, provided a link between performer and viewer that made the latter a partner rather than a spectator. The difference between being with somebody and looking at somebody became blurred:

Alone of the mass media, it removes from an audience’s consciousness the factors of time and distance…[it] bridges the gap instantly and unites the individual at home with the event afar…Physically, he may be at his own hearthside but intellectually, and, above all, emotionally, he is at the camera man’s side (Gould 1956, 27).

The camera—the essential tool of the medium—was the interface that enabled mediation between writer, director, performer and audience. To a certain degree, the television camera released the performer from creating an emotional distance from the audience. In the theatre, the audience remained at the same physical distance from the performer throughout the show, although performers such as Mary Martin were able to change this perception by manipulating their voice. Earlier chapters have discussed Martin’s expertise in this area, and this chapter examines her successful adaption to, and
integration of, the television camera into her performance tool box.

The television camera supplies three basic levels of focus: the long shot, the medium shot and the close-up. The long shot gives the audience an awareness of where the action is taking place, but says little about the people moving within it. By dwarfing the human frame, it separates audience and player, but also allows room for physical movement and provides framing and context. The close-up concentrates the audience’s attention, eliminating all others from the scene and bringing the performers into the same room as the viewer. The medium shot is the camera equivalent to social distance—the audience can see enough of the performer and their surrounds to give the illusion of being part of the same social space (Seldes 1952, 55). The physical act of viewing may be passive, but the relationship forged between live performers and home audiences thrives at an emotional, rather than physical level. Actors and performers needed to be credible, able to create and maintain the relationship with their viewers in order to be accepted into the observer's lives. Mary Martin accepted the challenge of becoming one of these performers.

Live broadcasts at this time were recorded by the simple expedient of placing a kinescope camera in front of the television monitor and filming this screen as the programme went to air. Copies of the kinescope were then distributed throughout the country for further broadcast (Abramson 2003, 49). The resulting recordings are certainly not of a high quality by present day standards, but still captured the sight, sound and feeling of a live performance. In addition, the presence of a live audience provides an immediacy not found in studio recordings. Several recordings of Martin’s live broadcasts survive, and many have been restored and transferred to DVD format. They form the basis of this chapter’s examination of Martin’s place in the burgeoning field of television entertainment.

The Ford 50th Anniversary Show: Mary Martin and Ethel Merman

*The Ford 50th Anniversary Show* aired on 15 June 1953 on the CBS and NBC networks. It ran for two hours and featured a “who’s who” of the entertainment industry, with guest stars including Frank Sinatra, Rudy Vallee, Marian Anderson, Oscar Hammerstein II, Bing Crosby, Amos and Andy and Eddie Fisher. The highlight of the night was a

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378 Irving Berlin believed that the low-quality kinescope recordings of *Annie Get Your Gun* would be detrimental to his reputation and demanded that all the copies of the kinescope recording be destroyed. Fortunately, one survived.
medley-duet of more than thirty songs sung by Martin and Merman. The performers were situated on a bare stage and the camera used mostly long shots and close-ups to capture the action.

Merman performed two songs, “Alexander’s Ragtime Band” and “Mademoiselle from Armentieres”. The first was performed with a Dixieland-style jazz band in classic Merman fashion, waving arms and rolling eyes framing a face-splitting smile. Her eyes did not once look directly ahead into the camera, instead darting and rolling everywhere else in the studio, leaving the viewer with the disconcerting feeling that she is avoiding their gaze. Only at the end of her second song, dressed in World War I uniform with four tall soldiers making her seem comically small, did she attempt to engage the camera directly, although her discomfort is apparent. Instead of her usual armour-piercing stare, Merman’s eyes lose focus as she tries to look through, rather than into the camera. For Merman, the camera was an intrusion that separated her from her audience, rather than a conduit to an even larger audience.

Martin on the other hand treated the camera as a natural part of the audience. By neither avoiding nor centreing her attention on it, Martin included the remote audience in her performance. Wearing a remarkably versatile zippered sack dress and a cummerbund, and using very few other props, she took both the live and remote audiences through fifty years of American female fashion without a word. Figure 8—1 shows a collection of these poses. Her face and body are as elastic as the dress she was wearing; Martin manages to engage not only the unseen narrators and the studio audience, but also the audience behind the camera. A mobile camera made use of both close-up and long shots and Martin fills whichever perspective was in use with captivating body movements and poses.

A lip-synced vaudeville-style duet brings Martin and Merman together and further highlights the difference between their styles. Merman holds her body very still and upright, with her dance steps circumscribed by the frame created by her arms and body. Her femininity is completely obscured by her male clothes. Martin exhibits a more fluid dance style, her loose-limbed movements reaching out beyond her personal space and drawing the audience into the performance, while simultaneously revealing hints of a tiny waist, rounded hips and tapering thighs through the identical masculine garments.

The duet, along with four other items performed by the two women, was released on DVD in 2004 and is still readily available.
Figure 8—1: Martin models fifty years of American female fashion
(Used with the permission of Showcase Productions Inc.).

The climax of the broadcast was the ten-minute duet/medley, performed by Martin and Merman in the counterpoint style Martin had introduced while performing in nightclubs in Texas and Hollywood.
The following descriptive text by the author describes the performance of the medley, and underlines the differences between the two performers:

Ethel begins. Strong, upright, grounded, firm; rallying the troops with arms and eyes, her outsized, trademark jewellery embellishing every movement as she declares, “There’s NO business like SHOW business.” Her bodice hugs her like armour, the supporting bones visible through the satin. In contrast Mary sits, her shoulders demurely covered with chiffon, hands clasped, relaxed, buoyant, drawing her audience closer as she excitedly exclaims, “I’ve found me a wonderful guy!”

The two come together; Ethel dignified and stately and Mary in a flurry of hands and skirts. It is a little shocking to see that Mary is the larger, broader in the shoulders and wider in the hip. Ethel somehow seems larger than life, and her head, framed by her habitually waving arms, sits large on her shoulders. Her narrow hips disguised by an outsized skirt continually moving from side to side as she sways stiffly, like a kewpie doll on a stick.

While Mary flits around her, a ballerina escaped from her music box, always moving while Ethel stays in place. Her body is fluid and mobile, darting here and there, a willow moving in the wind with Ethel the oak around which she dances. When Ethel sings, Mary leans close gazing in rapt attention, her hands sometimes gently clasping Ethel’s shoulders, allowing the audience no doubt who is the centre of attention. Ethel barely notices. Her attention is riveted on her audience; slight sidelong glances are all she spares for her partner.

Mary adores her audience and allows nothing to distract them from her message. She sings with only a hint of movement, her body absolutely centred, sending consonants through mobile lips, her diction perfect, every nuance of the lyric lovingly delivered. Her face and voice alter with every style and character change inviting the audience to be a part the story she is telling. Ethel stands firm, eyes rolling, eyebrows leaping, hands gesturing as she hurls words out to the audience in her trumpeting legato; with no apparent physical effort. Mary, tendons and veins bulging with strain in her neck and chest battles to keep pace with the force that is Merman. They deliver; Mary with a caress, Ethel a cuff, and both are adored.
While Martin and Merman were Broadway stars of the same magnitude, this duet/medley makes the contrast between the two abundantly clear. It emphasises the reasons for Martin’s success in the intimate world of television, and highlights Merman’s shortcoming in this medium. Television is able to capture dynamic movement within a small frame. By playing directly to the audience with a full frontal stance, invariable arm gestures outlining a static space on the stage, and archaic, repetitive eye and head movements, Merman’s delivery epitomised the vaudevillian roots of the television variety show. There is nothing in Merman’s voice to indicate a change to intimate mode, and a close-up camera perspective is the only signal the television audience has to make this assumption. When Merman does perform directly to the camera, the viewer is aware of a disconcerting intensity (see Figure 8—3).

Although Merman’s fame has endured to the twenty-first century, she became a caricature of the vaudeville style that seemed old-fashioned even sixty years ago.

The future direction of television performance is far more apparent in Martin’s manner and vocal style. The camera follows her physical and vocal cues rather than the reverse, and she gestures toward the audience and draws the viewer into her personal space.
While her face is mobile and communicative, her demeanour and character are able to change with one or two small movements and (even when not directly addressing the camera as in Figure 8—4), she radiates a gentle, familiar calm.

The net effect of Martin’s style of presentation and technique empowered the viewer to become part of a conversation, rather than the recipient of a performance—and the warmth she radiated through the camera ensured audience acceptance and enjoyment. After her experience making this television broadcast, Martin realized that television was a personality-driven medium in which intimacy counted most (Davis 2008, 175) and where the conversation continued after the camera moved away and the television was turned off.

In 1955, Martin appeared in three different roles broadcast on the NBC and CBS Networks. In March she appeared in Peter Pan, the first television broadcast of a Broadway show. After taking part in a State Department cultural exchange in a revival of Thornton Wilder’s The Skin of Our Teeth that toured Paris, Washington D.C., Chicago and New York, Martin appeared with Helen Hayes in a broadcast of the play on 11 September. The following month she appeared in a two person variety show with Noel Coward—Ford Star Jubilee: Together With Music. These roles underlined not only her versatility and popularity as a performer but also her mastery of a range of television entertainment forms.

Figure 8—4: The intimate Martin.
Used with the permission of Showcase Productions Inc.
Peter Pan: The Eternal Boy

“It’s hard to imagine anyone not knowing who my mother was, but nowadays, eight years after her death, I’ll meet young people…who have no idea of the Mary Martin of *South Pacific* or the *Sound of Music*. But mention *Peter Pan* and their eyes light up.

They can tell me how old they were and where they were when they watched it (Hagman 2001, 10).

**Background to Peter Pan**

In true British pantomime tradition, the role of J. M. Barrie’s Peter Pan is played by women, and only twice, has the role been played in the United States by anyone under twenty-six: on stage by 15 year old Vivian Martin in 1908 and in the 1924 silent film starring 17 year old Betty Bronson, chosen by Barrie. Written in 1904, the play made frequent appearances on Broadway from 1905 starring thirty-three year old Maude Adams, who reigned supreme for more than a decade as a wistful and sweetly aloof Peter with a dainty unselconsciousness and irresistible charm (Hanson 2011, 120). In 1924 Ziegfeld star Marilyn Miller, with whom Martin was compared some twenty years later, played a very feminine Peter, but did not impress most New York critics who agreed that Miller was not the right choice to play Peter Pan, whether because of her graceful dancing:

There are few in the world who dance like Marilyn Miller, and Peter Pan should not be one of them. He dances because he is happy and gay and not because he has been to ballet school.

Or, because she was not the critic’s beloved Maude Adams:

The fact that a script like that of Peter Pan could fall into the hands of people who didn’t know last January that Marilyn Miller could never be Peter Pan…shows exactly what is wrong with the commercial theatre today…The fact that people should be allowed to present this play who would interpolate a Broadway song-hit into it, shows exactly what is wrong with the world…The trouble probably lay in our having once been fifteen and, being fifteen, having seen Maude Adams.

A 1928 revival opened on Broadway starring Eva le Gallienne, who was far more to the critic’s taste than Miller: “she was a gallant, buoyant, clean-cut figure and gave Peter

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380 *Life Magazine*, 27 December 1943.
plenty of élan and boyish grace. She even expressed something of the aloofness of Peter—the boy who would not be mothered to the ruin of his boyhood.”

Martin and her long-time friend Jean Arthur frequently discussed these two performances, wishing they had seen Adams and le Gallienne play the part, and swearing that they would also be Peter. It seemed that Peter should be natural, lively, unselfconscious, charming, happy and gay. Years after Peter Pan, Martin wondered how important the gender of Peter actually was to her audience and decided that Peter Pan “is, and should be any age or any sex” (Martin 1977, 207). Even now, little has changed about the show—a new tour in 2013 starred sixty-year-old Cathy Rigby as Peter, dressed in the same style of costume as the one worn by Martin around the time of Rigby’s birth.

**Martin as Peter Pan**

There is no role with which Martin is more closely associated than Peter Pan. Martin had dreamed of flying from childhood, often dressed as Peter at costume parties, and later said that she considered Peter Pan to be the most important thing that she had ever done in the theatre (Martin 1977, 202). The newly-written show was produced by Richard Halliday and opened in San Francisco in July 1954. After a short run it moved to Los Angeles in August, opening in New York at the Winter Garden in October. The show itself received mixed reviews. Brooks Atkinson thought it was over-produced and that the music lacked distinction, sounding “as though it had come out of Tin Pan Alley tune factories.” Yet both critics and audiences adored Martin’s performance; the reviewer in Variety declared she was “so completely right, so believable and infectious as the eternal boy that it seems incredible that Barrie didn’t write the original play for her” (Hanson 2011, 243). Herald-Tribune critic Walter Kerr acknowledged “she tumbled into the role, like an eight-year-old hurling himself over and over in the best mud he can find, and as she darts, skips, and soars, she is the happiest truant in New York.”

Martin looked and lived the part, making reality and fantasy indistinguishable for her audience—she was Peter Pan. Children in particular believed the reality of Peter Pan, they “always stood on their seats, ran down the aisles, tried to reach Peter. He belonged

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384 Jean Arthur became the oldest woman to play Peter in 1950 at the age of fifty. Ironically, one reviewer declared that Arthur looked and sounded like Mary Martin in the role (Hirschak 2008, 576).
387 Quoted in Hanson 2011, p.243.
to them” (Martin 1977, 208). Martin was strongly aware of the utter belief children had in Peter, and made a point of never removing her costume until all the children had left the theatre, so as not to disappoint them.

The cast went into rehearsals for the live broadcast of *Peter Pan* as soon as the show closed at the Winter Garden. The production was virtually unchanged and used the original scenery set up on four stages in an old Brooklyn film studio. The orchestra played in a separate room with monitors on each set so that cast members could see the conductor as they performed. Once the broadcast started, there was no stopping. Advertisements were filmed live in the same studio and cameras moved between stages during the broadcast itself (Davis 2008, 187). Viewed by approximately sixty-five million people, the two-hour, full-colour extravaganza went to air on the evening of 8 March 1955. The recording survives, and is currently being remastered for distribution.

Martin made only a few changes to her appearance to become Peter. Her husband’s barber cut her hair in short masculine style, and she wore a cut-down girdle upside-down over her shoulders to flatten her breasts in order to create a slender and sexless silhouette. Figure 8—5 illustrates how effective this was, even with the added bulk of a flying harness. With her widespread limbs making her torso appear even more androgynous, Martin ensured that all Peter’s gestures and movements were unusually large, in order to take up as much room as possible in the vast three-dimensional performance space.

**The Voice of Peter Pan**

Martin uses three styles of speaking voice as Peter: a soft, childlike and very slightly British voice when speaking intimately with Wendy; a hard, loud voice when interacting with the groups of children—whether the Lost Boys or Indians; and a high, nasal babyish voice (somewhat reminiscent of the voice used by Fanny Brice when performing as Baby Snooks) when Peter teases adults or wants his own way.\(^\text{389}\)

\(^{388}\) The girdle also held the microphone she used when flying. This was the only time she used a microphone in *Peter Pan*.

\(^{389}\) Baby Snooks was a popular character voiced by comedienne Fanny Brice. Brice first performed the character on vaudeville in 1913, and Baby Snooks became a popular addition to the Ziegfeld Follies. In the early 1940s she was heard on radio in the *Good News Show* and *Maxwell House Coffee Show*. In 1944, Baby Snooks was given her own radio show on NBC, which ran until Fanny Brices’ sudden death in 1951.
The show is divided into three acts. Martin performs eight songs in the first two acts of the show, while the third act is taken up by battles, ensemble singing and the reprise of key numbers from the first two acts. The songs are in the simple AABA ternary form common to the popular ballad, with catchy tunes and strong rhythms. Like *South Pacific*, the music was written specifically for Martin and is crafted to suit the strengths and weaknesses of her voice and vocal style. This perhaps explains why one reviewer suggested that Peter Pan was Nellie Forbush’s little brother (Davis 2008, 219). Martin has four solo songs, sings three with the support of a chorus of boys or Indians, and also has a duet with Hook.

Unlike *South Pacific*, Martin uses all three vocal archetypes in *Peter Pan*: *belting*; her lyrical *mixed head/chest voice*, with its distinctive touch of torch-like croon; and her classical *operetta* style. Figure 8—6 lists the order in which the songs were performed. The balance of styles within the body of the production and the changes of *tessitura* and *point tessitura* between each style are immediately apparent. Figure 8—6 also shows that no two consecutive songs were performed in the same vocal style. Singing in *belting* phonation requires a high degree of vocal tension—the performance energy necessary in

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390 I also drew a similar parallel when I first heard “I’ve Gotta Crow.”
391 “O My Mysterious Lady” will be discussed separately. It is an unusual duet and stands outside the parameters of all the other songs.
Figure 8—6: The songs of the 1955 broadcast of Peter Pan indicating range, tessitura, point tessitura and voice archetype.  

Belted songs is substantially higher than in the other vocal types of vocal production habitually used by Martin. The insertion of songs requiring less demanding vocal styles between belt numbers provides greater interest and variety for the audience, but also allows Martin to safeguard her voice and energies throughout the show.

Martin uses a ringing belt voice in four of the eight songs she performs in the show; her first act solos ("I've Gotta Crow" and “I’m Flying”) and two of the songs she sings with the chorus in the second act (“I Won’t Grow Up” and “Ugg a Wugg”). As illustrated in Figure 8—6, the four songs share similar vocal ranges and styles, but the tessitura and point tessitura of Martin’s solo songs are far higher than those with the chorus.

**Crowing and Flying**

“I’ve Gotta Crow” and “I’m Flying”, are the first songs sung by Peter, portraying a happy, independent, high energy, persuasive, self-centred boy determined to have his own way in all things. Peter dashes about vocally and physically, with the children always a step behind copying everything he shows them. He pulls them along through

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392 This graph includes “Oh My Mysterious Lady.” Without this data the range for the role is E₃♭ to C₅ and the point tessitura is a semitone lower. The tessitura itself remains the same.

393 This does not include the finale of the third act, which includes a recapitulation of many of the songs.
sheer charisma and power of personality, the personification of-he-who-moves-fast-enough-and-shouts-loud-enough-is-right. In the both of the songs, Martin sings ingenuously, using an open, childlike inflection to the vowels while adding an extra syllable to words ending with a consonant, smiling broadly all the time. Martin uses a strong *belt* phonation throughout these songs, although while flying during the second song she does not sing so loudly. The large sound of her voice is combined with very outsized physical movements that use a great deal of the available space, both on and above the stage. When she crows, she throws her head back, opens her throat and just lets the sound come out, as shown in Figure 8—7. Spectrogram 8—1 shows the astonishing vocal output of that crow, including the two polyphonic syllables preceding the sustained sound. Peter Pan’s crowing became an integral part of Martin’s persona and she would teach children to crow at the end of performances. Years later she was still crowing and still being asked to crow.

One day I was walking across Fifth Avenue in New York when suddenly a manhole cover rose up and out came a big strong stevedore type with a hard hat on. He looked straight at me and said, “Peter, will you crow for me?”

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**Figure 8—7**: Martin crowing in 1955 NBC Broadcast. See also CD track 8—1 (used with permission of Showcase Productions Inc.).

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394 While this appears to be a way of ensuring the words are completely understood, it also adds a certain childish charm to the sound that she also uses in the later broadcast of *Annie Get Your Gun*.

395 Unfortunately, analysis and discussion of the mechanics of the production of the crow is beyond the scope of this study.
“Certainly,” I said. I stopped right in my tracks and crowsd as loud as I could. The man smiled, said, “Thank-you,” and disappeared back down the manhole (Martin 1977, 12).

**Just One of the Boys**

Peter’s place within the Lost Boys can be understood in terms of voice. “I Won’t Grow Up” is sung by Peter and the Lost Boys in a rowdy manner that is both boisterous and defiant in the sense of a yelling, tantrum-throwing Baby Snooks. It is the most childlike of the songs Martin sings in the show. Peter’s voice does not stand out from the other boys, as each boy sings his solo line in a markedly individual way—from a gruff, early teen voice to the piping sound of a very young boy. Peter’s voice sits somewhere in the middle of the grumbling throng, emphasising his place as one of the Lost Boys, as well as their leader. “Ugg a Wugg”, sung to celebrate the alliance of the Lost Boys and the Indians, is similarly loud and exuberant with short, high-speed, clipped diction. In the solo parts of this song, Martin uses a toned-down version of the Baby Snooks voice, mixing a little more head voice in with a nasalised belt. When she sings with the rest of the group, they all used an unconstrained, screaming belt.

The tessitura and point tessitura of these two belted numbers are lower than Martin’s solo numbers in the first act. They conform to the range and tessitura patterns identified by earlier studies (Harris 1996, 86) as being optimal for the dynamic range, agility and tonal quality of both unchanged and mutational boy’s voices. The two songs have identical ranges, similar tessituras, and a point tessitura within the Major second between D4 and E4, making them ideally suited to the very loud, natural sounding singing of both Martin and the boys. Martin’s voice thus blended easily with the younger members of the cast and reinforced her position as member of the group.

“Wendy”, the first song sung by Peter and the Lost Boys after Peter’s return to Never Never Land, has much in common with the pitch characteristics of “I Won’t Grow Up” and “Ugg a Wugg”. The chorus of boys sing in much the same way as they do in the other song, but Martin performs this particular song in a more lyrical style. It is sung as the boys build a house for Wendy—the mother Peter has brought for them—and is a gentle, lilting song with bouncing dotted rhythms alternating with contrasting sustained melodic lines. In the legato sections (accompanied by a harp), Martin utilises a full

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396 Unchanged refers to the voice before the onset of puberty and mutational refers to the voice during puberty, before the settling into its final form.
vibrato and adds rich, crooning overtones to a conversational singing style. In the sections with dotted rhythms her voice is lighter, and contrasts strongly with the boys chant-like “[w]e’ve got a mother, at last we have mother.” Here, Peter plays the role of adult within the group (soon to be relinquished to Wendy), organizing and encouraging the Lost Boys.

**The Gentle Peter**

For the first of her solo ballads, Martin switches dramatically from *belt* to a gentle croon. The opening period of “Never Never Land” (see Figure 8—8) begins at the highest point of the *tessitura* and moves through the entire range of the song in just over four bars. All the salient features of Martin’s performance—which give the song its conversational style—appear in this first period. In the period’s second phrase, the agile execution of the arpeggiated melody is effortlessly repeated an octave lower. There are crooning slides and *glissandi*, and the rhythmic alterations (from ‒ ‒ to ‒ ‒ and ‒ ‒) provide forward motion, while remaining relaxed and personal, to set up a delicate rhythmic tension between Martin and the orchestra. Throughout this song, Martin’s diction is exquisite—all her words are completely formed and clear, optimising the intelligibility of the text on even the cheapest of television sets.

“Distant Melody” is Martin’s final solo before the finale. She sings a beautiful lullaby in a lovely low *head voice*, as the Lost Boys lay down to sleep in the forest. The gentle waltz rhythm is perfect for the addition of crooning *glissandi* and mordents, and the melody is constructed of rising fourths, and falling fifths and sixths, with each note and phrase carefully rounded and finished. Martin’s consideration of the silence between phrases is as careful as her approach to the notes themselves, and the song becomes a

![Figure 8—8: The opening period of “Never Never Land”, including croon stylings in the upper range of the song (transcribed by the author).](image)
deeply personal remembrance of a lost time. She is fully aware of the impact such soft, childlike simplicity could have on both parents and children. The 1960 broadcast recording is a tone lower than other recordings, but still maintains its simple integrity without the additions of croon stylings.

Martin performed “Never Never Land” and “Distant Melody” a fifth lower than the published vocal scores, creating them as intimate ballads rather than beautiful, but potentially remote lyric soprano songs. Had she performed them at published pitch, Peter would have become very different to the other boys in Never Never Land. Although a soprano voice could tie to pure boy soprano tones of the cathedral chorister they were less likely to facilitate a picture of a rough and tumble boy fighting pirates in the forest, than would a vocal register leading naturally out of a speaking voice.

An unorthodox love song

The gender ambiguity inherent in the staging of Peter Pan led to the composition of an unusual love song. Jule Styne was concerned that the two stars of the show did not have a song to sing together, and he knew that Martin possessed a coloratura voice. Consequently, Styne, Betty Comden and Adolph Green wrote “Oh My Mysterious Lady”, an unorthodox duet between Hook and Peter (Robinson 1994, 135). Having just fooled the pirates into releasing Tiger Lily, Peter proceeds with his favourite occupation—teasing Captain Hook. Dressed in a veil and singing in dramatic soprano style, Peter fools Hook into believing that he (Peter) is a beautiful lady, and the two dance around the forest in a comedic parody of a pas de deux. As Hook beseeches her to show herself, Martin vocalised over a range of more than two octaves from B3 to D6 in a style reminiscent of her recording of “Listen to the Mocking Bird” fifteen years earlier.

Martin’s performance in this song must have surprised the audience of Peter Pan, given that over a decade had elapsed since Martin’s classical voice had been heard in the United States. Martin’s intense work on her vocal health after South Pacific had enabled her to regain much of her original range, agility and strength. A written version of Martin’s part was not published with the vocal selections, and the song was removed from later revivals. However, there is a copy carefully written out at the pitch

397 The song is not listed in the opening night credits in the 1981 revival starring Sandy Duncan. It was listed in later productions starring gymnast Cathy Rigby, but Rigby stated in an interview that it had been
The inclusion of this style of song in *Peter Pan* brings Martin’s vocal style full circle. While studies may debate the complexities of gender and sexuality in Martin’s performance as Peter, this piece provides evidence of her ability to move between classical, popular or easy-listening vocal styles, and to portray woman, mother or child.

The placement of song styles in *Peter Pan* was very carefully crafted to allow Martin to change her vocal style in each song, and to maintain the enormous energy and vocal control needed throughout the broadcast. The two high *belt* songs are placed at the beginning of the show, when Martin is fresh and rested. Those requiring her to *belt* at full volume come in the second act, separated by songs where she uses her mixed, *legitimate* voice. The belted songs also have *tessituras* which fall within the same frequencies as her speaking voice, so she is easily able to take advantage of vowel *formants* to conserve her vocal energy.

Martin was almost forty when she starred as the boy who wouldn’t grow up in the Broadway production of *Peter Pan* (1954) and forty-six when she made the final video recording of the show in 1960. The video was re-aired regularly until 1989, and then released for home viewing in the VHS format. Almost sixty years after the first television special, it is still available on DVD. Two generations of children in America grew up watching Martin as Peter Pan and the actresses that followed her in the role (Sandy Duncan and Cathy Rigby) maintained the vision of the bounding, crop-haired, blonde dressed in green. Since 1954, this musical adaption of *Peter Pan* is more often performed in the United States than the original Barrie play. It has become the quintessential *Peter Pan* (Hischak 2008, 243).

Was Martin just playing Mary Martin in *Peter Pan*? Perhaps she was, as Martin was able to connect more closely to both adults and children than a child performer. The range of vocal styles she brought to the characterisation of Peter assured the audience that they had been watching and listening to the boy who didn’t grow up. At the same time, however, they had no doubt that they had been watching and listening to Mary Martin. Writing about his mother and her connection to Peter Pan, Larry Hagman removed from the show (*The New York Times*, 25 November 1990).


398 A transcription of the song as Martin sang it in the 1955 broadcast is provided in Appendix B. The manuscript, carefully written out at the pitch performed by Martin, is held in the Betty Compton Collection at the New York Public Library.
"I am still crowing about life," she said after flying (in 1984), “Here’s to us never growing up—never, never, never” (Davis 2008, 271). Used with permission from Corbis Australia.

comes closest to answering the question:

For her it was a role that allowed her to play herself. Mother was someone who had dared to follow her dreams from Weatherford to stardom; she followed her heart; she refused to see any limitations. I figured that’s as close to flying as humans get. In spirit she really was Peter Pan (Hagman 2001, 82).

Together with Music: Intimate Entertainment

…it appears that…I have also revolutionized television by proving that two people, without support of an elaborate production, can hold for an hour and a half.”

*The Ford Star Jubilee: Together With Music*, featured Noël Coward and Mary Martin and was broadcast live-to-air over the CBS television network on Saturday 22 October 1955. This was Coward’s first appearance on US television, and photographs featuring the pair rehearsing at one of Coward’s Jamaican properties appeared in *Life* in the week prior to the broadcast. The casual photographs (one of which appears in Figure 8—10) emphasised the close relationship between Coward and Martin, the “Texas Darling’s”

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399 Noël Coward in (Payn & Morely 1982, p.287).
hometown charm simultaneously humanising and introducing the “British Master of sundry stage trades” to a new American public. The show was a re-working of a two-and-a-half-hour benefit Martin and Coward had performed in London’s Café de Paris several years earlier, with new material and a specially-composed song, “Ninety Minutes is a Long, Long Time”. Martin confessed that she was “terrified that reviewers might use those words as a headline” (Martin 1977, 142).

Coward insisted that the Friday preview be captured on kinescope (rather than just the broadcast), so there would be a little time to correct mistakes. On viewing the tapes Saturday morning, having been warned that it “was a rush job, and we should look fairly dreadful,” Coward expressed concern “a great many of the camera shots were muddled and diffuse and taken from too far off.” and insisted that most of the show be shot in close-up, for “[i]t is no use me trying to sing witty lyrics if you can’t see my eyes” (Payn & Morely 1982, 287). Once this was changed, it allowed the television viewer to interact at a more privileged and intimate level than the live audience in the studio. The conversational nightclub performance style became the intermediary between the intimate personal mode and the public mode of delivery.

While Martin agreed with him, the critics did not. Jack Gould suggested in his critique

![Figure 8—10: Arms and legs flailing in a finale, Mary Martin and Noël Coward discuss a new TV show while floating in a Jamaican swimming pool (Life, October 17, 1955)](image)
“a touch of relief from song in close-up would not have been amiss.” The audience, on the other hand, both in the studio and at home watching their televisions, were ecstatic.

At the end of the performance chaos set in. Everybody was in a fine state of ecstatic appreciation. Clifton was in tears. Marlene [Dietrich] called me immediately from Vegas and her voice had gone up four tones. Telegrams arrived like confetti from all over the country. A couple of strangers rang me up from a small town in Michigan and said they had never seen anything so wonderful in their lives. Finally, when Mary and I left to go to the party at ‘21’, there was a howling mob in the street. There was a genuine ‘triumph’ feeling about the whole thing. The party was one long paean of praise… (Payn & Morely 1982, 288).

Stanley Green claims the CD recording is “a prized facsimile of a memorable occasion” only omitting four commercial “interruptions”, and the studio announcer’s introduction and signoff. It also omitted Martin’s remarkable burlesque performance of “One Fine Day” from Puccini’s Madam Butterfly. Martin sang this only a semitone lower than written and further confirmed the recovery of her voice from the hard belting work in Annie Get Your Gun, South Pacific and Peter Pan. Martin was concerned about performing the song. Coward wrote in his diary:

> [s]he is frightened of doing the ‘Madame Butterfly’ burlesque, rightly at the moment because she isn’t doing it very well. If she suddenly decides shewon’t do it we are in bad trouble because all the dialogue I have written to bind the show together depends on it! (Payn & Morley 1982, 285).

Madam Butterfly highlighted not just Martin’s comic timing, but also her continuing ability to present the classical repertoire to a modern audience without resorting to changing the original vocal style of the music. She remains in classical phonation for the entire song, making her interactions with the doll and an apparently bored Coward even more amusing, and the audience responded favourably. Her treatment of “One Fine Day” is in direct contrast to her treatment of “Les Filles de Cadix” later in the show. This song, recorded in 1938 as part of her classical/swing cross repertoire (see Chapter Four) is now a hot jazz number from its beginning. The pitch is considerably lower in this later performance, with Martin using a growling chest voice during the

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first French section and then a raucous *belt* voice in the English section (which bears very little relationship to the French words). She only just keeps her final note (a belted D5), but her voice cracks slightly under the strain.

Martin’s performance of Cole Porter’s “I Get a Kick Out of You” most dramatically illustrates her mastery of the intimacy of television. It begins slowly, accompanied by sustained wind instruments playing seemingly random notes. Her eyes focus just to the right of the camera, and she holds her head motionless, allowing the tight focus of the camera to draw the audience toward her as she comes to the end of the first phrase. Then, moving her gaze directly into the camera lens and murmuring, “I get a kick out of you,” she pins her audience in place (see Figure 8—12). Her face remains motionless and her lips are barely moving as she continues to increase the intensity of her performance.

Martin begins in a quiet **mixed head/chest legitimate** voice and touches the consonants only lightly during the first part of the phrase, producing a rich, *legato* effect. In contrast, the word “kick” explodes out of her mouth before suddenly returning, leaving the listener with only a hint of the vowel. As clearly shown in Spectrogram 8—2, the partials of the short vowel are still visible and strongly delineated by the gaps produced
Figure 8—12: Martin singing “I Get a Kick Out of You”. The intimacy of the performance is intensified when she turns her gaze to the camera.

by the strong “k” sounds. The final note of the phrase opens with an explosive “p” and dies away as the vowel changes from “a” to “e”. This careful control of the vowel/consonant balance enhances the phrase’s sensuality, and, rather than pitch or dynamics, it is the strong consonants that create the climax.

This technique of enhancing the smooth sensuality of the line is also seen in Martin’s belt phonation. Spectrogram 8—3 illustrates her seamless links between vowels as she elides “my” and “idea”, just prior to lowering the volume without losing any vowel definition or change in her vibrato. The strongly sustained line and Martin’s motionless face combine to suspend the rhythmic pulse, not allowing the audience to relax during the song. Martin continues this intimate performance in “I Only Have Eyes For You”, enacting a happy conversation between good friends in a much faster tempo. She uses a brighter mixed voice than in “I Get a Kick Out of You”—Spectrogram 8—4 shows the formant tracking with the second and third partials rather than the fundamental. Instead of relying on the pitch and the arch of the melody, the singer manipulates her resonance, vowels and consonants to shape phrases.

Martin uses a wide variety of timbre and styles in Together With Music, ranging from comedy to hot jazz, and classical soprano to dramatic Mermanesque belt. The intensity of the ninety-minute performance displayed the strength and stamina that Martin had shown on stage in previous years, contrasting and enhancing her performance in the broadcast of Peter Pan earlier that year. In 1955, Martin was at the peak of her career, constantly appearing in live theatre, on television, in magazines and in public. She was beautiful, elegant, loving, cheerful and friendly, with a voice that seemed to do anything
she asked of it. Behind the effortless grace and sound, however, were immense amounts of physical and mental hard work; yet this consummate artist rose to every challenge with joy and enthusiasm.

Martin’s television performances circumstantiate the success of an integrated vocal style accommodating the transformations demanded by technological progress in the middle of the twentieth century. The widespread success and acclaim generated by these performances establishes her influence on the changing modus of female vocalisation—from inflexible monotypes to responsive polyglots—through this period and beyond.

The third part of this study explored the evolution of Martin’s integrated vocal techniques on stage from 1946 to 1955, culminating in her success in the new medium of television; the following summary presents a review of these findings as a precursor to the research conclusions.

Summary of Part Three

Component three of the current research has revealed Martin’s successful transfer of supple vocal production techniques from an environment reliant on technology to the unamplified stage, and her ensuing assimilation of those techniques from 1946 to 1955. Importantly, it highlighted Martin’s use of a cohesive vocal style within the development of complex characterisations in her stage roles. The chapters in Part Three have also illuminated the degree to which Martin’s profile and popularity on stage allowed her to instigate dramatic changes in female vocal styles during this period.

The role of Venus was pivotal in the development of Martin’s career. It signalled the beginning of this performer’s incorporation of disparate vocal techniques within a single role or character, and her introduction of a more flexible vocal style to the Broadway stage. Recognizing Martin’s potential and versatility, composer Kurt Weill crafted music that supported and encouraged her technical development—drawing on his considerable training and collaborations with vocalists from diverse theatrical forms in Germany and the United States of America. Martin brought to Weill’s music a Venus who was cool, sexy and regal (Hirsch 2003, 224); capable of performing his complex melodies, and slipping effortlessly between declamatory Sprechstimme, intimate conversation, brassy belt and slick jazz.

Martin’s success in One Touch of Venus also marked a transformation in her public persona from the naïve country girl to a sophisticated woman of the world. Her depth
of character and maturity as an actress became evident in the shows that she appeared in
during the next decade, even though not all her appearances contributed directly to her
ongoing vocal technique. However, they did illustrate her determination to succeed no
matter what difficulties were put in her way. Though the analysis of recordings and
sketch materials has demonstrated that Martin was generally able to use her very low
crooning style to good effect on the unamplified stage, her voice was insufficient for the
*operettic* stage. While not as successful as her earlier shows, *Lute Song* and *Pacific
1860* confirmed in Martin’s mind the direction her career should be taking, and were the
last productions in which a third party made decisions regarding her vocal style.

Martin’s decision to tour *Annie Get Your Gun* nationally while Merman was starring in
the show on Broadway confirmed the validity of her perceptions. This was the first
time a lesser known actress had taken on a role originated by a performer still starring in
the part. It provided Martin with the change in public image and vocal style that proved
she could be a belting, forthright, straight shooting girl next door. Importantly, Martin
was able to balance a genuineness of character with a depth of emotion not before seen
on the Broadway stage. It is clear that the positive and negative experiences from these
shows added to Martin’s understanding of herself as a performer, and contributed to the
solidity and flexibility of her vocal technique.

In *South Pacific*, Martin drew on her experience playing contrasting roles in developing
a three dimensional characterisation of Nellie Forbush that grew and changed in front of
the audience. Significantly, Martin expressed much of this development through
Nellie’s voice—the boisterous, belt-like public voice of everyday Nellie, the crooning private
voice when she was alone with de Becque, and the zany voice of Nelly at play. Outside the
theatre environment and inside the recording studio, Martin was able to alter her vocalisation to
suit the more intimate, limited audience of the gramophone record. Such an ability was
essential to her successful integration into the television performance arena.

Three case studies illustrate Martin’s ready adaption to the new medium of television—
*The Ford Motor Corporation’s 50th Anniversary Show*, the first network adaption of
*Peter Pan*, and the variety show *Together With Music*. These shows marked the
beginning of Martin’s long and varied television career, and the emergence of a new
dimension to her intimate performance style. The singer’s relaxed presentation
emphasised the contrast between the warmth of her audience rapport, and Ethel
Merman’s powerful yet detached performance style. This disparity simultaneously
enhanced the audience’s enjoyment of Martin’s performance, while narrowing audience pleasure at Merman’s presentation. The former’s ability to move easily between vocal styles was highlighted in the live television performance environment—one that is simultaneously public, private and intimate. The title role in Peter Pan became uniquely associated with Martin and was watched by generations of Americans; it has become the central reference for female performance and vocal style on Broadway to the present day.

The roles played during this period confirmed Martin’s versatility and popularity as a performer, her mastery and integration of disparate vocal practices and her comfort in a variety of changing entertainment environments. The centrality of Martin’s placement within the world of the theatre, her influence on those surrounding her and the long lasting popularity of her work ensured the continuing development of female vocal techniques in American musical theatre beyond 1955.
CONCLUSIONS

The first half of the twentieth century was a time of unprecedented social and technological change in American musical theatre; the current research has examined the transformation of female vocalisation within this domain. Female theatre vocalists during this period were highly individual performers specialising in one style of vocal technique, which was in turn associated with a particular role or character type. The rapid advancement of microphone and broadcast technology during the 1920s and 1930s decreased the dependence of popular singers on vocal technique in order to be heard above any instrumental accompaniment, which led to a new, intimate form of delivery. The powerful voices previously required on the live stage were a liability in this new environment and many eminent performers, such as the three examined in this study, were unable to formulate a cohesive vocal technique or approach to performance with the requisite flexibility to adapt to the new era of technology.

This research has cast new light on the monumental shift in female performance technique that has largely been overlooked in discussions of the development of American musical theatre. Mary Martin was the first artist to successfully negotiate the stylistic and technical transition, and her significance in this regard is momentous. The study aimed to establish Mary Martin’s role in the development of an integrated vocal style in American musical theatre between 1940 and 1955. Accordingly, the research focussed on the clarification and elucidation of two important questions. Firstly, how did Martin’s vocal technique and performance style exemplify the changing manner of female vocalisation in American musical theatre during this period? Secondly, in what ways did her technical development epitomise the successful transition to, and accommodation of the demands made by concurrent technological advancements in the performance of American musical theatre?

Although the literature devoted to study of musical theatre and the female voice has achieved considerable breadth, it has remained segregated between the historio-social disciplines, vocal pedagogy, voice science and phonomusicology. The particular focus of these specialities has meant that a comprehensive assessment of technical developments in relation to the female voice in musical theatre has been overlooked. The historio-social approach has tended to reflect the general assumption that musical theatre is a genre mediated through writers, composers, choreographers and directors;
the role of the performer (male or female) in the development of musical theatre has mostly been ignored. While the divide between vocal pedagogy and vocal science has narrowed in recent years, the polarisation of their respective extrinsic and intrinsic foci means that neither has approached the question of advancement in modern vocal performance styles. Phonomusicology has its roots in historically informed performance, but has yet to venture out of the classical performance domain into the complex field of changing female vocal techniques.

This study approached developments in female vocalisation through a multifaceted lens, providing an integrated, three-tiered approach to the analysis of the voice and vocal style. Martin’s vocal production and performance processes have been situated within the environment of mid-twentieth-century musical theatre, and grounded in an historical narrative of social and technological change. The broad elements of her vocal style have been explored through published and unpublished materials, while the intricacies of individual vocal techniques are explored through the analysis of a wide range of contemporary recordings. The fruitful amalgamation of methodologies analysing the voice—vibrato, tessitura, point tessitura and spectral analysis—has resulted in a thorough and accessible approach to the study of the voice and vocal style.

This research established an historical and biographical context as a point of reference from which to assess the extant changes in female vocal style during the period 1940–55. The subsequent examination of rapid advances in recording and broadcasting technology and the inevitable influence of these on the performance and reception of musical theatre reveals a vacuum between the latter and popular vocal music that could only be filled by an adaptive vocal technique. This study also considered Martin’s early recordings and her previously unexplored broadcasts on national radio. Such an investigation highlights the clear developmental path taken by Martin in the evolution of an integrated, flexible vocal approach and her rising profile as a star performer. The enquiry also underlines her mastery and assimilation of divergent vocal techniques on the stage and in the new performance environment of television—accentuating her centrality to American musical theatre from 1940 to 1955.

The original vocal styles on Broadway

This study has established the three representative female vocal styles found in the dominant forms of American musical theatre up to the end of the First World War: the classical soprano, the lyric soprano and the belt or coon shout. An analysis of extant
recordings established the acoustic framework of these styles, confirming their influence upon the continuing development of female vocal performance in musical theatre. Not surprisingly, the classical soprano of operetta displayed a legato vocal production with regular, even vibrato and a strongly resonant fundamental. The lyric soprano of the developing musical play maintained dominant resonance in the fundamental, with a relatively less-legato tone that facilitated the production of clear lyrics and the addition of occasional melodic embellishments. Conversely, the coon shout belter displayed a shift in resonance from the fundamental to the upper partials, particularly those in the area of the singer’s formant. All three of these voice types reflected the roles being played, and successful proponents rarely strayed from the character-type propelled by their vocal style.

The relationship between character and vocal categories was further refined in the post-war years: the classical soprano’s weightier production gave way to a lighter lyric soprano soubrette of the Cinderella heroine, jazz-influenced torch song stylings were included in the vocal mechanism of mature female characterisations, and the belt voice was legitimised through its use by comedic female characters. However, performers remained fixed in their chosen vocal/character roles regardless of the gradual movement away from spectacular revues and sumptuous operetta to musical plays with a book, and songs that were integrated with the story. This is the approach female vocalisation in American musical theatre might have maintained, if not for the accelerating advances in recording and broadcast technologies and the addition of sound in the cinema. These performance forums demanded a more intimate style of singing from male and female vocalists. In response, torch song singers began to appropriate the lower pitch and intimate, conversational characteristics of the male crooner—a change that could not be accommodated by most stage performers.

The present research has demonstrated that noted performers who rose to prominence prior to the full impact of technological advances of the time could not, or would not, modify their vocal techniques or performance style in the face of changing performance and audiences demands. Despite the possession of a substantial classical musical education, Edith Day did not develop skills to overcome the decline in her vocal control as she grew older. Neither was she willing to relinquish the role of soubrette on stage—a personal limitation that effectively terminated her career. While successfully blending popular jazz and classical techniques, Helen Morgan was unable to effectively modify her technique to fully embrace the stylistic transformation occurring in contemporary
musical theatre. Despite firm popularity throughout her career, Ethel Merman’s signature delivery style limited the type of roles she played on stage and rendered her transition to new performance media virtually impossible.

Like these performers, Martin faced the challenges of shifting vocal and performance styles, and like them, her tenacity and hard work drove her to succeed. However, what distinguishes her from other female singers of the time was an apparent willingness and ability to modify her vocal technique and delivery in response to audience and technical demands. From a very young age, Martin was prepared to re-invent her voice and her persona, thus maintaining a flourishing career across the full array of evolving broadcast media as well as the international stage. The maintenance of vocal health and training supported the broad range of vocal styles she adopted over time, and constant self-education enabled her to use these styles in the creation of plausible, three dimensional characters. In addition, Martin was able to express her rapport with her audience and co-stars vocally as well as physically; such capabilities were developed during her radio work and first exhibited on stage in the performance of “That’s Him” in One Touch of Venus.

The development of an integrated vocal style

From the beginning of her career on Broadway, Martin used contrasting vocal techniques and role characterisations in different performance settings. These approaches mirrored the dominant female vocal types of American musical theatre, as well as the popular male crooning style. Confronted with contrasting styles of singing evident through gramophone records, radio and film, Martin adopted multiple styles in her quest for a well-rounded vocal technique that allowed her successful entry to the entertainment world. While Martin’s performance of her classical/swing crossover songs showed the ability to move between musical styles and vocal approaches, at this early point in her career, she remained dependant on her classical head voice for the majority of her repertoire, including her croon style recordings. Nevertheless, it is clear that Martin was uninhibited by the potential constraints of a stage apprenticeship—which might have restricted her to singing in a single style—and naturally adapted her vocal technique to accommodate new demands imposed by performance scenarios and innovative technology.
On radio

Martin’s live radio broadcasts schooled her in the practise of meaningful interaction with a remote audience, and provided her with an environment in which to experiment with different vocal techniques on a regular basis. The singer’s early airings show a distinct progression in her development as a performer: she moved from an undistinguished band singer interchangeable with many everyday performers, to a self-confident, personable entertainer who was able to present varied repertoire. Martin’s year-long stint as co-host with Bing Crosby in 1942 highlighted the relaxed use of her middle register in conversational-style popular songs. This period also saw the gradual consolidation of Martin’s low crooning voice, as the overall pitch, tessitura and point tessitura lowered into a light baritone range. Most significantly, Martin showed the first evidence of a conscious integration of belt production with her fortissimo head phonation that allowed her to produce tones of similar intensity at higher pitches while retaining a belted sound. Radio performance—supported by the microphone and amplification—stimulated Martin’s increasing flexibility in adapting to performance demands.

On stage

Martin successfully retained these production techniques when she returned to the unamplified Broadway stage. In portraying Venus—a heroine who did not comply with the traits of traditional musical theatre roles—Martin created a single, three dimensional character utilising all three archetypical vocal styles. This approach signified the beginning of a revolution in female vocalisation in American musical theatre, and the birth of Martin’s intimate, signature tone.

From 1946 to 1950, Martin played four contrasting roles on Broadway and London’s West End. Each of those parts emphasised a different singing technique and characterisation. While the first two roles—the introspective Tchao-Ou-Niang in Lute Song and the prima donna Madam Elena Salvador in Pacific 1860—contributed little to her technical development, they assisted her personal maturity, confirming the importance of being the main decision maker in the roles she chose to play. The third role—Annie Oakley in the national tour of Annie Get Your Gun—completely cemented the belt style as an important part of her vocal arsenal. Though constrained vocally due to the effects of performing Annie Get Your Gun, Martin presented a three dimensional characterisation that grew in maturity and emotion through the fourth role—Nellie
Forbush in *South Pacific*. Significantly, Martin signified these changes through a sophisticated balance of public and private vocal techniques—using non-*legato mixed voice* and *belt* phonation to signify the public Nellie and *legato*, torch/croon stylings to imply Nellie’s internal dialogues and her relationship with Emile—all of which acted as aural signposts for the audience.

Martin’s refinement of her theatrical and vocal persona resulted in a sophisticated technique that enabled the creation of convincing characterisations in her chosen roles. The singer’s manner of vocalisation on the live stage now moved away from the lyric *soprano/legitimate* style and remained in her *mixed voice*, progressing into a *belt* phonation for emotional emphasis. Further refinements were apparent in the cast album recordings, including an *legato* performance style, the use of a rounded head voice (including *vibrato*, which had not been present on stage), crooning *glissandi* and *rubato*. All of these components were significant ingredients of the more intimate interpretation required in the recording studio, and they took on even more importance with the introduction of television.

*On television*

The integration of Martin’s vocal technique reached its zenith within performances on television. She brought all her recent stage presentation experience to the television studio, as well as the smouldering, torch song crooning from her radio and studio recordings, and the *coloratura* virtuosity apparent in operetta. This performer’s cohesive singing style appears tailor made for television’s simultaneously grandiose and intimate communication environment. Her seamless adjustment of vocal techniques ensured maximum impact, and the ability to successful accommodate communication technology provides unambiguous evidence of Martin’s cohesive, fully-integrated mode of singing.

*Directions for future research*

Bound by the constraints of time and space, this study offers an in-depth examination of Mary Martin’s early career. Yet she remained a well-loved icon of live musical theatre for more than thirty years after her first television appearance in the mid-1950s. Thorough analysis of her later stage roles and performances within the television industry will prove fruitful to ongoing research in the historical progression of the female voice. Of particular interest in this regard will be the comparison of her studio
and live performance techniques in *Annie Get Your Gun* (1957), while assessments of recordings from the latter part of the 1960s will also illuminate the effect of aging upon her voice. The potential of spectral analysis as a tool for the investigation of vocal recordings is touched upon lightly in this study. In particular, the potential for wide-ranging investigations into historic aspects of vocal and performance techniques in popular and classical music is evident.

The significance of this research does not only impact upon the study of historical performance, it also opens the way for a deeper understanding of the voice in musical theatre today, particularly in the pedagogical studio. The application of a multi-level approach including the manipulation of *tessitura* and *point tessitura*, real-time visual feedback and comparative visual commentary will be of benefit to the training of cross-over vocalists, as well as musical theatre performers.

In closing, this study has shown conclusively that Mary Martin performed successfully in a variety of performance arenas. Early in her career, film and radio played an important role in Martin’s popularity as a performer, particularly in her associations with popular stars such as Bing Crosby, Dick Powell and Ronald Reagan. By the early 1950s, she became well known to audiences via live theatre performances, motion pictures, radio broadcasts and national stage tours. Her carefully managed appearances in the mass media throughout the period covered in this research shaped Martin’s public image, bringing her integrated performance technique to public attention on a large scale.

Mary Martin’s appearances on television throughout the 1950s brought widespread acclaim from an even broader audience across the United States of America, and the extensive success and acclamation generated by these performances confirms her influence on the evolving manner of female vocalisation in this period. Martin’s vocal skills, dedication, adaptability and responsiveness were the basis of her exceedingly wide appeal and popularity, and an astute choice of roles assured her place as a model singer, wife, mother and all-American girl. The familiarity engendered by Martin’s depiction in women’s magazines as a beautiful, elegant and down-to-earth woman placed her in a privileged position of influence over the woman’s place in the domestic province, and significantly, secured her inspirational authority in the expansive sphere of performance.
<table>
<thead>
<tr>
<th>Glossary Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amplitude:</td>
<td>The distance of displacement from zero (positive or negative) during one period of an oscillation.</td>
</tr>
<tr>
<td>Articulators:</td>
<td>The parts of the vocal tract that changes its shape and volume, including the soft palate, the tongue, teeth, lips, jaw and surrounding musculature.</td>
</tr>
<tr>
<td>Aspirated onset:</td>
<td>The misplacement of the vocal folds allowing too much air to pass prior to phonation, also known as breathy phonation.</td>
</tr>
<tr>
<td>Balanced onset:</td>
<td>The optimal positioning of the vocal folds prior to phonation allowing the articulation of a sound that is neither too compressed nor too relaxed.</td>
</tr>
<tr>
<td>Belt voice:</td>
<td>A loud vocal technique frequently used in musical theatre singing, which developed from the coon shout of the early twentieth century. It is produced consistently in the chest or modal register of the female voice. Belt is characterised by closed quotient range of over 50% and the raising of the first formant to the second partial of the tone.</td>
</tr>
<tr>
<td>Book:</td>
<td>The libretto of a musical. The term was coined to differentiate between musicals that were conceived as a series of scenes, sketches, dances and songs without a connecting story. A book musical had story and, as the form developed, the book and the music were integrated to ensure both moved the action forward.</td>
</tr>
<tr>
<td>Cast recording:</td>
<td>The major songs of a musical recorded by the cast during the run of a show. This type of recording may be undertaken live on stage or in a studio, typically on the Sunday after the opening of the show.</td>
</tr>
<tr>
<td>Cent:</td>
<td>A logarithmic measure of pitch used to identify very small musical intervals. In equal temperament, one semitone is equal to 100 cents.</td>
</tr>
<tr>
<td>Chest register:</td>
<td>The lower part of the pitch range characterised by relaxed vocal folds, which are vibrating throughout their full body. In women this usually extends from approximately F3 to F4, however this may be extended up to D5 when using belt techniques. It is also frequently referred to as the modal register.</td>
</tr>
<tr>
<td>Classical voice:</td>
<td>A vocal style most often used in opera and operetta. It is the basis for the legitimate voice used in musical theatre. It is characterised by a low closed quotient and the first formant.</td>
</tr>
</tbody>
</table>
tracking with the fundamental of the tone.

Closed Quotient: The percentage of the glottal cycle in which the glottis is closed to the passage of air (Miller and Schutte 2005, 282). Also known as closed phase or contact phase (Sundberg et al. 2010, 44)

Decibel (dB): The most frequently used measure to indicate intensity, the decibel is a relative rather than fixed measure of sound pressure level or physical intensity. Generally speaking, zero decibels represents the normal auditory threshold and 120 decibels the threshold of pain. Three decibels is the smallest increase in audio volume that a human can distinguish, and a ten decibel increase in sound pressure level results in a doubling of the perceived audio volume. For example, eighty decibels is perceived twice as loud as seventy decibels.

Ingénue: In musical theatre, the ingénue is traditionally an innocent young woman who is beautiful, wholesome and naïve. The role is generally sung by a lyric soprano.

Formant: The reinforced harmonics of the sound spectrum which gives the resonator its characteristic sound or timbre. In the vocal tract, usually four to eight formants are considered in the analysis of speech or singing (Howard and Murphy 2008, 182)

Frequency: The pitch of a tone, or more specifically, the number of oscillations of a sound wave in one second. For example, a sound wave oscillating at 440 cycles per second gives a pitch of concert A4.

Full score: The arranger’s or composer’s orchestrations used by the conductor.

Hard Onset: When the vocal folds are closed, causing a build-up of sub-glottal air pressure, which is then released in a sudden and explosive vocalisation.

Head Register: Also known as the falsetto register, it is the upper part of the pitch range characterised by vibrations restricted to the margin of elongated vocal folds, with reduced contact between them. In women this register generally extends from C4. This study has adopted Miller and Schutte’s (2005) terminology and accepts that head register includes middle (~C4-D5), upper (~D5-B5) and flageolet (~B5-F6) registers.

Hertz (Hz): The basic unit of frequency in the International System of Units and refers to the number of cycles per second.

Intensity: Intensity is dependent on the distance from the sound source (the further away the lower the intensity) and the amplitude
of the sound wave. The perception of loudness is the sensation of intensity.

**Legitimate voice:** A vocal style commonly used in musical theatre prior to the 1970s. It has its antecedents in the lyric soprano voice found in operetta and is produced in the head register or a light mixed head/chest voice. It is also referred to as the legit voice.

**Long Term Average Spectrum (LTAS):** The average of a succession of short term spectra, which enhances a sound that remains static: such as a sustained vowel. This reduces any non-periodic noise as it will average closer to zero (Howard and Murphy 2008, 14-15). All spectrum in this study are averaged over 200 msec.

**Middle or mixed voice:** A vocal style used frequently in musical theatre, in which the characteristics of the chest and head registers are combined in different degrees of dominance (Miller and Schutte 2005, 281).

**Money note:** A vocal trick—sometimes employed upon a note or a phrase—unique to a performer that shows off their abilities.

**Onset:** The initiation of a vocal tone in words that begin with a vowel. The many different types of onset can be divided into three groups: hard onset, aspirated onset and balanced onset.

**Operettic:** A vocal style derived from the lyric soprano in operetta.

**Operettist:** A soprano who uses vocal styles commonly found in *soubrette* roles in operetta. This voice type is characterized by light vibrato and vocal agility, and is also known as the lyric soprano (operetta) or legit voice (musical theatre).

**Phonation:** The sound generated by the oscillation of the vocal folds.

**Power spectrum:** A two-dimensional graphic representation of a tone, plotting frequency (x-axis) against relative amplitude (y-axis).

**Piano/vocal score:** Piano and vocal scores of complete works are published as rehearsal aids. They are generally scored in the same key as the original performance (although pitch changes made after the score is sent to the publisher do not appear) and they frequently contain some indications of the orchestration. Individual songs are published in the same format, but may be transposed for different voice types.

**Quality (sound):** The characteristics that make a voice or instrument readily identifiable. In this study, it is dependent on the characteristics of the complex sound wave generated by the source as modified by the acoustic properties of the vocal tract.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register (vocal)</td>
<td>The distinct regions of the voice consisting of a series of tones that are relatively homogenous and can be differentiated by differing resonance strategies in the vocal tract (see Chest register and Head register).</td>
</tr>
<tr>
<td>Short Term Spectrum</td>
<td>A short portion of a wave-form (20msec) providing a snapshot in time in the spectrum of a sound (Howard and Murphy 2008, 14-15).</td>
</tr>
<tr>
<td>Singer’s formant</td>
<td>Formants within the sound spectrum between 2800 and 3400 Hz that are further amplified, enabling singers to be heard over an orchestra.</td>
</tr>
<tr>
<td>Soubrette</td>
<td>A lively, coquettish, impudent character originating in the Commedia dell’arte character of Columbina. In opera, soubrette describes the light, agile soprano voice required to sing roles such as Papagena in Mozart’s The Magic Flute. Combining the “legitimacy” of operetta with the everyday American Cinderella, this same voice type came to typify the new style of heroine emerging in American musical theatre in the second decade of the twentieth century,</td>
</tr>
<tr>
<td>Sketch</td>
<td>The draft of a song and/or series of songs made by a composer during the creative process. Sketches are often incomplete and can consist merely of jotted ideas, completely scored or anywhere in between.</td>
</tr>
<tr>
<td>Spectrogram</td>
<td>A graphical representation of the frequencies of a tone showing time, frequency and sound pressure level (SPL) or amplitude. Each horizontal line within the spectrogram represents an individual harmonic within the tone. The horizontal (x) axis represents the time in seconds; the vertical (y) axis represents the frequency in kHz; and amplitude is represented by the progressive colour change from dark blue through light blue, white, yellow, and then red.</td>
</tr>
<tr>
<td>Spectrograph</td>
<td>An instrument that separates an incoming wave into a frequency spectrum. The VoceVista voice analysis software developed by Donald Gray Miller and Richard Horne is employed throughout this study.</td>
</tr>
<tr>
<td>Studio cast recording</td>
<td>The recording of selected works from a musical undertaken by specifically chosen performers. Generally the members of a studio cast will not have performed the songs on stage and the key of the work will be changed to suit performers in that recording. Sometimes the performers will record songs sung by multiple characters from the show. The studio cast recording cannot be considered indicative of on-stage performance styles.</td>
</tr>
</tbody>
</table>
**Vibrato:** The oscillation of pitch above and below the fundamental tone, with an accompanying oscillation of the harmonics of that tone. Vibrato is one of the clearest qualities of the voice that can be isolated spectrographically.

**Vibrato extent:** In VoceVista, vibrato extent is defined as one half of peak-to-peak pitch (maximum to minimum) compared to average pitch. It is expressed in cents and in percent.

**Vibrato rate:** In VoceVista, vibrato rate is the mean frequency of vibrato measured in Hertz.

**Vocal folds:** The small, vibrating muscles in the larynx that act as the sound source during voiced sounds, such as speaking and singing. Also known as the vocal cords.

**Vocal Straight Man:** The duettist who maintains the integrity of the melodic rhythmic line, while the second performer improvises.

**Vocal tract:** The pharyngeal cavity, the mouth cavity and, at times, the nasal cavity. The shape of the vocal tract can be modified by the *articulators*. When in a neutral position the vocal tract approximates a cylindrical closed pipe.
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Conference on The Musical Theatre in America. Westport Connecticut:
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SELECTED DISCOGRAPHY

This discography is a listing of commercial recordings of works referred to in this study. It is not a comprehensive list of recordings by all the artists discussed in the study. All recordings are firstly listed chronologically and then alphabetically by title. Re-issues are referenced with the original recordings where possible.

* denotes the original recording owned by the author
**denotes original recording held in the Library of Congress and accessed personally by the author.

Mary Martin

1938

*“Most Gentlemen Don’t Like Love.” December 2. Composed by Cole Porter. With Eddy Duchin and his Orchestra. Brunswick 8282; mx 23779
   Re-issued on:
   Mary Martin, My Heart Belongs to Daddy, Pavilion Records PAST CD 7838. 1999.

**“My Heart Belongs to Daddy.”” December 2. Composed by Cole Porter. With Eddy Duchin and his Orchestra. Brunswick 8282; mx 23778.
   Re-issued on:
   Mary Martin, My Heart Belongs to Daddy, Pavilion Records PAST CD 7838. 1999.

*“Listen to the Mocking Bird.”” December 22. Richard Milburn with words by Septimus Winner. With Woody Herman and His Orchestra. Decca 2265A; mx 64834.
   Re-issued on:

   Released in Australia on *Decca Y5349.
   Re-issued on:
   Mary Martin, My Heart Belongs to Daddy, Pavilion Records PAST CD 7838. 1999.

1939

**“Il Bacio.”” January 24. Decca 2377B; mx 64941.
   Released in Australia on *Decca Y5349
   Re-issued on:
**“Les Filles de Cadix.”** January 24. Decca 2265B; mx 64940.

**“Deep Purple.”** March 20. Decca 2362A; 69195.

**“Our Love.”** March 20. Decca 2377A; mx 65194.
   Re-issued on:

**The Great Victor Herbert. All music by Victor Herbert**

“Ah Sweet Mystery of Life.” With Allan Jones
“There Once Was an Owl.” With Allan Jones
“Thine Alone.” With Allan Jones
   All Re-issued on:

“A Kiss in the Dark.”
“Only Forever.”
“Thine Alone.”
   All Re-issued on:

1940

   Re-issued on:

   Re-issued on:

   Re-issued on:

   Re-issued on:


Re-issued on:
Mary Martin, My Heart Belongs to Daddy, Pavilion Records PAST CD 7838. 1999.

“What is This Thing Called Love?” Cole Porter. May 4. Decca 23150; mx 67165.
Re-issued on:
Mary Martin, My Heart Belongs to Daddy, Pavilion Records PAST CD 7838. 1999.

1943 (November)

Re-issued on:
Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.

Re-issued on:

Re-issued on:

Re-issued on:
Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.

1946

Re-issued on:
Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.

Re-issued on:
Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.

“See the Monkey.” Raymond Scott and Bernie Hanighen. March 4, Decca 23537A,
mx 73413. American Decca album 447.  
Re-issued on:  
*Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.  

Re-issued on:  
*Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.  

Re-issued on:  
*Mary Martin; My Heart Belongs to Daddy, PAST CD 7838. 1999.  

1947


All re-issued on:  
Mary Martin at Drury Lane…Pacific 1860, ENBO-CD#8/93. 1993.

1949

Columbia ML 4180, mx XLP-1116.  
Re-issued on:  
Mary Martin: My Heart Belongs to Daddy, CD AJA 5513. 2004.  
South Pacific Columbia Broadway Master works, SK 60722. 1998.

“I'm Gonna Wash that Man right outa My Hair.” Richard Rodgers and Oscar Hammerstein II. April 18, 1949. Columbia ML 4180 (CO-41185).  
Re-issued on:  
Mary Martin: My Heart Belongs to Daddy, CD AJA 5513. 2004.  
South Pacific Columbia Broadway Master works, SK 60722. 1998.
Re-issued on:
Mary Martin: My Heart Belongs to Daddy, CD AJA 5513. 2004.
South Pacific Columbia Broadway Master works, SK 60722. 1998.

Re-issued on:
South Pacific Columbia Broadway Master works, SK 60722. 1998.

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Mary Martin: My Heart Belongs to Daddy, CD AJA 5513. 2004.
South Pacific Columbia Broadway Master works, SK 60722. 1998.

Re-issued on:
Mary Martin: My Heart Belongs to Daddy, CD AJA 5513. 2004.
South Pacific Columbia Broadway Master works, SK 60722. 1998.

1951


Both re-issued on:
Mary Martin at Drury Lane...Pacific 1860, ENBO-CD#8/93. 1993.

1954


All re-issued on:
Peter Pan: Original Broadway Cast Recording, RCA-Victor 3762-2-RG.

Re-issued on:
Peter Pan: Original Broadway Cast Recording, RCA-Victor 3762-2-RG.

Edith Day

1920

Re-issued on:
Edith Day in Irene, MES/7057. n.d..
Original Cast! The Early Years. MET801CD, 1995.

Re-issued on:
Edith Day in Irene. MES/7057. n.d..

Re-issued on:

1925

Re-issued on:
Edith Day in Rio Rita. MES/7058 (LP). n.d..

1927

*“The Sabre Song.” Sigmund Romberg. May 6, 1927. Columbia (British) 4388 A 5407.

1930

“Rio Rita.” Harry Tierney, Joseph McCarthy. 1930. Columbia (British) DX55 (Side A).

“You're Always in my Arms.” Harry Tierney, Joseph McCarthy 1930 Columbia DX54 (Side B).

1934


Helen Morgan

Re-issued on: Original Cast! The Early Years, MET801CD. 1995.

Original Cast! The Early Years, MET801CD. 1995.


“Can't Help Lovin' Dat Man.” Jerome Kern, Oscar Hammerstein II. August 9, 1932, Brunswick/Columbia 20115 BX 12162.

Ethel Merman

Re-issued on:
Ethel Merman I get a kick out of you, PAST CD 7056. 1995.

Re-issued on:
Ethel Merman I get a kick out of you, PAST CD 7056, 1995.
Ethel Merman Red Hot and Blue! Stars in Your Eyes, AEI-CD 001. 1991.

“Make it Another Old-fashioned Please.” Cole Porter. December 2, 1940. American Decca 23199, Mat No 68428-A.
Re-issued on:
Ethel Merman 12 Songs from Just Call Me Madam: with selections from Panama Hattie, Decca Broadway 0881 10521-2. 2001.
Ethel Merman I get a kick out of you, PAST CD 7056, 1995.

Re-issued on:

Re-issued on:
Ethel Merman 12 Songs from Just Call Me Madam: with selections from Panama Hattie, Decca Broadway 0881 10521-2. 2001.


FILM AND TELEVISION

Marty Martin

The Great Victor Herbert. Paramount Pictures. 1939.

The Ford 50th Anniversary Show. CBS and NBC Television. 15 June 1953.
Re-issued on:


Ethel Merman


RADIO

Mary Martin

This is a listing of commercial CDs compiled by Old Time Radio Catalog (OTRCAT.org). A complete list of Martin’s radio performances appears in Appendix E page 397).

Command Performance. OTRCAT C7343.1 134642 2/5. n.d.
Good News Disk 1. OTRCAT G6465.1 135491 1/3. n.d.

Good News Disk 2. OTRCAT G6465.2 135491 2/3. n.d.

Kraft Music Hall. OTRCAT K89251.1 134642 2/5. n.d.

Rudy Vallee Show. OTRCAT R9176.2 134642 4/5. n.d.
APPENDIX A

SPECTROGRAMS REFERRED TO IN THE TEXT

The following are Spectrograms referred to in the text throughout this study. For ease of navigation, the spectrograms use the same dual number identifiers, i.e., 2—5 denotes the fifth spectrogram in Chapter Two. Captions have also been included as an aide mémoire.

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Chapter 2

Spectrogram 2—1: Lillian Russell singing the last line of “Come Down, Ma’ Evenin’ Star” from *Twirly-Whirly* (1912); see also CD track 2—1.

Spectrogram 2—2: Anne Wheaton singing the first phrase of “Till the Clouds Roll By” 1917 (see also CD track 2—2).
Spectrogram 2—3: Simple belt style embellishments added by Anna Wheaton during the duet chorus of “Till the Clouds Roll By” 1917 (see also CD track 2—3).

Spectrogram 2—4: May Irwin singing, “When I Walk This Levy Round” (see also CD track 2—4).
Spectrogram 2—5: Stella Mayhew singing, “things in the air, but I never seems to care” show clear indication of *belt* phonation and the shape of spoken diphthongs.

Spectrogram 2—6: Edith Day singing from the stage of Drury Lane illustrating the limited range of acoustic recording in 1920.
Spectrogram 2—7: Edith Day recording in 1927 and showing the increased sensitivity of electric recording techniques (see also CD track 2—6).
Chapter Three

Spectrogram 3—1: A comparison of the London recording from the stage (A), and the US studio recording (B). See also CD tracks 3—2 and 3—3.

Spectrogram 3—2: Edith Day singing the refrain of “Sky Rocket” from the London recording. See also Figure 2—7 and CD track 3—4.
Spectrogram 3—3: Edith Day singing final notes of the refrain of “Sky Rocket.” See also Figure 2—8 and CD track 3—5.

Spectrogram 3—4: Edith Day singing the opening from “Indian Love Call.” See also Figure 3—10 and CD track 3—6.
**Spectrogram 3—5:** Torch Song stylings in “Bill” (1928) transcribed in Figure 3—14. See also Figure 3—14 and CD track 3—10.

**Spectrogram 3—6:** A comparison of the 1936 film soundtrack (A) and the 1928 recording (B) of “Bill”, showing the reduction of singer’s formant in the later recording. See also Figure 3—16 and CD tracks 3—11 and 3—12.
Spectrogram 3—7: Comparison of the 1936 film soundtrack (A) and the 1928 recording (B) at the beginning of the bridge section in “Can't Help Lovin' Dat Man”, which illustrates Morgan’s loss of vocal control. See also Figure 3—17 and CD tracks 3—13 and 3—14.

Spectrogram 3—8: Comparison of two recordings of “Can't Help Lovin' Dat Man” emphasising Morgan's inadequate vocal production in her lower register. See also Figure 3—18 and CD tracks 3—15 (A) and 3—16 (B).
Spectrogram 3—9: Spectrogram of Merman’s *belt* production and *mixed voice*. See also Figure 2-21 and CD track 3—17).

Spectrogram 3—10: Merman straightening her *vibrato* for vocal effect (see also CD track 3—18).
Spectrogram 3—11: The final three notes of “Eadie was a Lady” showing Merman’s fluctuating vibrato extent (see also CD track 3—19).

Spectrogram 3—12: Merman singing in soft belt phonation in the first verse of “After I’ve Gone.” See also Figure 3—25 and CD track 3—20.
Spectrogram 3—13: Merman in *belt* phonation at the end of “After I’ve gone.” See also Figure 3—26 and CD track 3—21).

Spectrogram 3—14: Three *money notes* over a fourteen year period 1936-1950. See also CD tracks 3—22, 3—23 and 3—24.
Spectrogram 3—15: Ethel Merman singing the last note in “Rose’s Turn” showing the higher relative amplitude of the fourth and fifth partials. See also Figure 3—28 and CD track 3—25)
Chapter 4

Spectrogram 4—1: An example of Martin’s passaggio at the end of section III of “Il Bacio” illustrating her changes in resonance strategy between her chest, middle and head phonation. See also CD track 4—2.

Spectrogram 4—2: Martin changing from belt voice to head voice in “Il Bacio” showing a clear change in resonance strategy. See also Figure 4—1 and CD track 4—3.
Spectrogram 4—3: A comparison of Martin’s classical style (Spectrogram B [below]) and swing style (Spectrogram A [above]) performance in two sections of “Les Filles des Cadix.” See also CD track 4—5 (classical) and 4—6 (swing).

Spectrogram 4—4: Example of Martin’s rich head voice in the second refrain of “Who’ll Buy My Violets?” See also CD track 4—8 and Figure 4—4.

It is important to note that Spectrogram A was flat transferred from an original 78 recording and no noise cancelling software was used post transfer. This has resulted in a far “noiser” spectrogram.
Spectrogram 4—5: Martin using *belt* phonation in the final coda of “Who’ll Buy My Violets?” Note that this is the same pitch as that seen in Spectrogram 4—4. See also Figure 4—6 and CD track 4—9.

Spectrogram 4—6: Martin's bright *legitimate voice* in “My Heart Belongs to Daddy”, showing increased resonance in the second partial. See also CD track 4—11.
Spectrogram 4—7: Martin singing F5# in “Ah Sweet Mystery of Life.” See also CD track 4—12.

Spectrogram 4—8: A lower example (B4) of Martin’s classical resonance pattern shown in the previous spectrogram from “There Once Was an Owl.” See also CD track 4—13.
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Spectrogram 4—10: “Let's Do It” showing Martin’s well defined consonants and sibilants. See also CD track 4—15.
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Chapter Five

Spectrogram 5—1: Mary Martin’s speaking voice on radio in 1938, showing the smooth modulations of the vowels and the clarity of her enunciation. See also CD track 5—1.

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Spectrogram 5—3: Martin singing at section A2 of “Serenade in the Night” exhibiting a decrease in vocal tension through her smooth legato sound, and relaxed, uniform vibrato. See also CD track 5—3.

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Spectrogram 5—8: Martin singing at the lowest end of her register supported by the brass section. See also CD track 5—7.
Spectrogram 5—9: Excerpt from ‘The Way You Look Tonight’ illustrating the connectedness of the words, the lack of resonance in the upper partials and the clarity of Martin’s lower register. See also CD track 5—8.

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Spectrogram 7—2: Comparison of the live and studio versions of “Cockeyed Optimist.” See also CD tracks 7—8 (live) and 7—9 (studio).
Spectrogram 7—3: Comparison of the resonance of Nellie (above) and de Becque (below). See also CD tracks 7—10 (Nellie) and 7—11 (de Becque)

Spectrogram 7—4: Final notes of “Honey Bun” from the studio recording. Martin tunes the first formant to the second partial, subsequently increasing the resonance in the surrounding partials. Her vibrato is regular, and narrows as the note ends with an emphatic “n.” See also CD track 7—12.
Chapter Eight

Spectrogram 8—1: Martin preparing to crow and then crowing. The preparation notes are polyphonic with two fundamentals a semitone a part. The crow appears to be at C6. See also CD track 8—1.

Spectrogram 8—2: Martin singing the first line of “I Get a Kick Out of You.” Note the very light use of consonants and the contrast with the explosive “k” in “kick.” See also CD Track 8—2.
Spectrogram 8—3: Example of Martin eliding “my” and “idea.” See also CD track 8—3.

Spectrogram 8—4: Martin sustaining the sound through a phrase during bright *mixed* phonation. See also CD track 8—4.
APPENDIX B

SCORES REFERRED TO IN THE TEXT

The following are lengthy music examples referred to in the text throughout this study. For ease of navigation, the music examples use the same dual number identifiers, ie 4—5 denotes the fifth spectrogram in Chapter Four.

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III

Gem - me - e per - le non de - si - o

Non son va ga d'al-touf - fer

to.

Sul - le sul - le lab - ra sul - le lab ra se po - tes - si, dol ceun ba - cio ti da - re - i dol-ceun

VIII  

Coda

Ah!

ah! vien ah! vien d'ap - pres soa me, Ah!

Ah! vien! Ah! vien Ah!

Ah! vien d'ap - pres soa me, ah! vien, ah! si ah! vien ah! vien.
Music Example 4—2: Martin’s vocal line from part three of “Il Bacio,” recorded 24 January 1939. Transcribed by the author.
Music Example 4—3: Second verse of “Les Filles de Cadix” taken from the 1887 Schirmer Score.
Music Example 4—4: Martin’s vocal line from the second part of “Les Filles de Cadix” recorded January 1939. Transcribed by the author.
Music Example 4—5: Comparison of the third refrain from 1918 edition of “La Violetera” and Martin’s 1939 recording of “Who'll Buy My Violets.” Martin’s line transcribed by the author.
Music Example 4—6: “Listen to the Mocking Bird” as sung by Marty Martin 1939. Transcribed by the author.

Verse

I'm dreaming now of_ Hal-ly_ sweet Hal-ly_ sweet Hal-ly_ I'm
dreaming now of_ Hal-ly_ For the mock-ing bird is sing-ing where he lies.

Refrain I

Oh listen to the mock-ing bird Oh listen to the
mock-ing bird. The mock-ing bird is sing-ing o'er the leaves. Oh listen to the
mock-ing bird Oh hear the mock-ing bird He's sing-ing songs for you and for
me. Oooo__ dle-a-da tra-tra-tra-dle a day_ Oooo_

Refrain II

dle-a-da tra-tra-tra-dle a day_ Hear the mock-ing bird sing-ing.

Refrain III

Hear the mock-ing bird sing he can sing, he can swing, he can do most an-y-thing Oh,

Refrain IV

Ra-tra-di-tri-tri tra-tra-tray Oh listen to the mock-ing bird.

Sweet-est lit-tle song you ev-er heard The mock-ing bird is sing-ing all the
Refrain V

day!

Ah!

ah a a a a a a a a ah

ah a a ah

Duet refrain

ah a a ah

ah ah ah

Coda

Who dat mock-ing

It's the mock-ing bird. The

mock-ing bird is sing-ing all the
day.
Music Example 4—7: Mary Martin’s vocal line from “My Heart Belongs to Daddy” 1939 recording. Transcribed by the author.

I used to fall in love with all
Those boys who mauled refined ladies.
But now I tell each young gazelle
To go to hell I mean Hades.
For since I’ve come to care for such a sweet millionaire.
While tearing off a game of golf I may make a play for the cadet.
But when I do I don’t follow through. ‘Cause my heart belongs to Daddy.
If I invite a boy, one night to dine on my fine finnan haddie.
Just adore he’s asking for more but my heart belongs to Daddy.
Yes my heart belongs to Daddy, so I simply couldn’t be bad, yes my
heart belongs to Daddy
So I

want to warn you, lady
Tho' I think you're perfectly swell,
That my

heart belongs to Daddy
'Cause my Daddy he treats it so well.

Yes my heart belongs to Daddy
So I

simply couldn't be bad.
Yes my heart belongs to Daddy
So I want to warn you lady
Tho' I

think you're perfectly swell
That my heart belongs to Daddy
'Cause my

Daddy he treats it so well.
He treats it and treats it, and then he repeats it.
Yes,

Daddy he treats it so well.
Music Example 5—1: Transcribed by the author.

Serenade in the Night
(Violino Tzigano)

Lyrics by Jimmy Kennedy

As sung by Mary Martin 9 June 1938

Music by B Cherubini and C. A. Bixio

\( \text{j = 100} \)

\( \text{A} \)

Serenade in the night
neath a lady's window

\( \text{B} \)

Just the same serenade that I tenderly played

\( \text{A1} \)

There were stars in the sky and I sang

\( \text{B1} \)

but she gave not a sign that she'd ever be mine

\( \text{C} \)

Oh why must the south wind be bringing it?

\( \text{C1} \)

Oh why must my heart keep on singing it?

\( \text{Bridge} \)

mm mm mm mm
Serenade in the night

\( \text{B2} \)

from the past comes to haunt me
When I hear that refrain, oh, my heart aches again

\( \text{rall.} \)

gain for that lost love of mine.

\( \text{Second Refrain Swing j = 69 3} \)

Serenade in the night
_neath a fair lady's window__ Just the same serenade that I tenderly

played long ago on this night

and I sang 'neath the roses and she'd never be

mine so my love story closes__ Oh why__

must the south wind be bringing it?__ Oh why__

must my heart keep on sing-in' swing-in' the serenade in the night__

from the past comes to haunt me When I hear that refrain, oh, my heart aches again for that lost love of

mine.
Music Example 5—2: Transcribed by the author

Hometown
As sung by Mary Martin on Good News 1938

How dear to this heart are the scenes of my childhood when fond recollections remind me of my home town want to wander round your back streets, see your tumble down old back streets, I’d love to walk in on those cozy country cousins of mine. Home town where the doves are softly coo in’ where there’s always no thing doin’, I’d get a welcome from those cozy country cousins of mine. There’s an old school house door we used to tumble through at
four, and a small candy store, where I could go a dozen lol-lipops and come back for more. Oh my Home-town where the garden trees are shady, where that Eadie was a lady. Yes, sir I'm going back to see those cozy country cousins of mine. I can see m' cousin Maisie in the kitchen molto rall.

Cousin Zeke behind the plough who's that cousin over there by the hay stack That ain't no cousin That's our cow! I can hear the fire crackers Every Friday night at our place Who's that croaking like a fog horn? That's m' gran-maw she sings bass. Folks all dressed up for the farm dance
Listen to the fiddle and the old banjo
Who's that rube in the white checked trousers?
That's Hank Perkins my best beau
Your best Beau My best beau
very very very very best beau
very very quite contrary
not my mere very very
He's my very very best beau.

There ain't a single solitary
thing I have forgotten there's the bend in the river and the
cabin in the cotton and I can't forget how watermelons
smell when they are rotten I'd love to walk in on those
cousins of mine Remember jest like yesterday m'
high-school graduation I was dressed up fit to kill I'm in a
city bought creation A yellow dress with purple lace and
orange decoration
I can't forget those country cousins of mine (Home town)

Every thing is nice and slow there
Got ta hop a train and go there

(I'm goin' back) the city sights might be terrible to see (back) but they don't really mean a thing to me. (back) The only place on earth I'd want to be is Home town

Home town

I'm coming

to Town!
Music Example 5—3: Transcribed by the author

You Made Me Love You
As sung by Mary Martin 29 January 1942

Joe McCarthy

\( \text{\textit{j} = 56} \)

You made me love you, I didn’t want to do it I didn’t want to do it,

You made me want you, and all the time I knew it I guess I always knew it,

You made me happy some times You made me glad But there were times dear, you made me feel so bad You made me sigh for I didn’t want to tell you I didn’t want to tell you. I want some love that’s true, Yes I do deed I do. You know I do. Gim-me gim-me what I cry for, You know you got the brand of kisses that I’d die for. You know you made me love you.

You made me love you and I didn’t wanna do it.

and all the time I knew it I guess I always knew it You made me happy some times You made me

Copyright 1913

But there were times dear, You
made me feel so oh so bad You made me sigh for I didn’t want to tell ya I

thought I couldn’t tell ya I want some love that’s true, Yes I do deed I
do. You know I do. Gimme gim-me gim-me gim-me what I cry for, You

know you got the brand of kisses that I’d die for.

You know you made me love you. Deed I do!
Music Example 5—4: Transcribed by the author

The Way You Look Tonight

Dorothy Fields  

\( \text{\( \text{\( d = 66 \)\)}} \)

\begin{verbatim}
Some - day, when I'm aw - fly low, when the world is cold, I will feel a
Love - ly, with your smile so warm, and your cheek so soft, there is noth-ing
glow just think-ing of you and the way you look to - night.
for me but to love you just the way you look to - night.

Oh, but you're With each word your ten-der-ness grows,
tear-ing my fear a - part, and that laugh that wrin-kles your nose
touch-es my fool - ish heart. Love - ly, nev-er, nev-er
change, keep that breath- less charm, won't you please ar-range it, cause I love you,

just the way you look to - night. Ooo Just the
way you look to - night.
\end{verbatim}
Music Example 5—5: Transcribed by the author

from 1942 broadcast
B. G. De Sylva

\( \text{\textit{Do it Again}} \)

by George Gershwin

\( \text{\textit{From The Great American Songbook}} \)

\( J = 138 \)

Oh, do it again! I may say "No, no, no, no, no," But do it again,

Mmmm, do it again! I may say "No, no, no, no, no," But do it again,

My lips just ache to have you take the kiss that's waiting for you, You know if you do,

My lips just ache to have you take the kiss that's waiting for you, You know if you do,

you won't regret it. Come and get it. Oh, no one is near, I may cry

you won't regret it. Come and get it. Ohhhhh, no one is near, I may cry

"oh, oh, oh, oh, "but no one will hear. Ma-ma may scold me 'cause she told me it is

"oh woh" but no one will hear. Ma-ma may scold me 'cause she told me it is

naughty, but then, Oh, do it again, Please do it again!

naughty, but then, Oh, do it again, Please do it again! oh
Wait Till the Sunshines Nelly
As Sung by Mary Martin
13 November 1942

Wait till the sun shines Nelly, when the clouds go drifting by,
we will be so happy Nelly. Don’t let me hear you sighing

Down lover’s lane we’ll wander, sweethearts you and I
If you will wait till the sun shines Nelly, Bye bye and bye.

Wait till the sun shines Nelly, when the clouds go drifting
happy Nelly. Don’t let me hear you make a sigh

Way down in lover’s lane we’ll wander, sweethearts you and I
We’ll be so happy together, but it all depends on the weather man,

Oh, Nelly don’t you sit there and sigh If you will wait till the sun shines, Nelly, I in the sweet
Just be discrete and wait till the sweet bye and bye.
Music Example 5—7: Trascribed by the author.

Rose O'Day
As sung by Martin Martin and Bing Crosby 1942

Al Lewis

Charlie Tobias

Johnny McCarthy loved Rosie O'Day, She was the prettiest thing.

And every night in his sweet Irish way Under her window he'd sing Rose O'Day.

You're my fil-la ga dush-a Fil-la marush-a Ba da rah da boom too dee.

You're my fil-la ga dush a Fil-la ma rush-a Ba da rah da boom too dee. You're darling you're daring your love-ly Is that what you mean when you say Rose O'Day.

You're my fil-la ga dush-a Fil-la ma rush-a Ba da rah da boom too dee

boom too dee boom too dee boom too dee ay!

Oh Rose O'Day My lit-tle Rosie O'Day.
My lit-tle Ros-ie O’-Day.
shim-ma la rush-a
boom
too deee ay
You’re dar-ing you’re dar-ling you’re love-ly
Is
that what you mean when you
Oh Rose O’-Day
My lit-tle Ros-ie O’-Day.
shim-ma la rush i Ba
boom too deee boom too deee boom too deee
boom too deee ay!
The Saga of Jenny
As Sung by Mary Martin 1942

Lyrics: Ira Gershwin
Music: Kurt Weill

There once was a girl named Jenny,
Whose virtues were varied and many,
Excepting that she was inclined
Always to make up her mind.

And Jenny points a moral
With which you cannot quarrel,
As you will find.

Jenny made her mind up when she was three,
She, herself, was going to trim the Christmas tree;
She would delve;
But at seven to Vassar it was quite a blow.
That in a gine and rum and despinny tricks
And poor

Jenny was an orphan on Christmas Day,
Poor Jenny! Bright as a penny, her
found her self a husband but he wasn't hers

Jenny kicked the bucket at seventy-six
equal will be hard to find
To Jenny I'm beholden, Her heart was big and golden, But she

would make up she would make up her mind.
Arthur Murray Taught Me Dancing in a Hurry

Johnny Mercer

Victor Schertzinger

\[ \text{Johnny Mercer} \]

\[ \text{Victor Schertzinger} \]

\[ \text{d} = 90 \]

\[ \text{Arthur Murray taught me dancing in a hurry.} \]

\[ \text{I had a week to spare,} \]

\[ \text{He showed me the ground work, the walk a round work, and} \]

\[ \text{told me to take it from there.} \]

\[ \text{Arthur Murray then ad-vised me not to} \]

\[ \text{wor-ry.} \]

\[ \text{It'd come out al right.} \]

\[ \text{He was-n't mis-ta-ken, the} \]

\[ \text{falls I've ta-en, I don't know my left from my right.} \]

\[ \text{The} \]

Music Example 5—9: Transcribed by the author.
people around me can all sing a one and a two and a three
But any resemblance to waltzing is just coincidental with me. Cause Arthur Murray taught me dancing in a hurry
And so I take a chance To me it resembles the nine day trembles But he guarantees it's a dance.
Oh you've heard of Pavlov's then yank them over make way for the Queen the Queen of the dance.
He Comes from Timbukthree

There's a handsome lieutenant and he's mine all mine, No word is high enough.

So I had to raise all the words by one, He is much more than wonderful so

I add one, I call him two-tiful In fact, he's just three, three divine

He is my two-tiful, little lieutenant and he comes from Tim-buk-three. He is my two-tiful little lieutenant he's the only two five

me! It's higher praises that he deserves so I sing his praises in

higher words He is my two-tiful little lieutenant and he comes from Tim-buk-three.

No no

No No No no He comes from Tim-buk-three

He is my two-tiful, little lieutenant and he comes from Tim-buk-three. And he

comes from Tim-buk-three!
Music Example 6-1: Martin’s performance of “Speak Low.” Transcribed by the author.

Moderato assai \( \text{\textit{j} = 120} \)

Speak low when you speak love Our summer day withers away too soon, too soon. Speak low when you speak love, Our moment is swift, like ships adrift we’re swept apart too soon. Speak low darling speak low love is a spark, lost in the dark too soon, too soon, I feel where ever I go that tomorrow is near, tomorrow is here and always too soon. Time is so old and love so brief Love is pure gold and time a thief we’re late darling we’re late the curtain descends every thing ends too soon, too soon. I wait darling I wait Will you speak low to me speak low to me and soon.

A tempo

We’re late darling we’re late. The curtain descends, every thing ends too soon, I wait darling, I wait. Will you speak love to me?
Three young fillies from Cadix Are really very or-din-ar-y hicks They'll never do you wrong Three young fillies from Cadix are just a tri-o from the sticks Who love to roll their eyes at ci-ty guys and har-mon-ise a bee-bop song. They can sing it up and they can sing it down They can kick a song a-round and bop it out-ta town You ne-ver heard a trum-pet wah wah

A - ny bet-ter than their o --------- La!

(yeah) Rrrri- le! --------- Ah Le fil-les de Cadix n'en-
tent dah bah dah Ah ra ra ra ra da ra ra ra ra ra ra ra ra ra ra Ha!

Ra ra ra ra ra ra ra ra ra ra ra ra ra di Ca-dix!
Oh Mysterious Lady
As sung by Mary Martin Live 1955

Music Example 8-2: Transcribed by the author.

Jules Styne

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APPENDIX C

1. Pitch nomenclature used throughout the study
2. Frequencies used throughout the study
3. Female Vibrato rates prior to 1940
4. Average Spoken Formant Frequencies for Women (Hz)
Note: This represents the complete vocal range used by Mary Martin within the works found in this study. The digits 1-37 are assigned to facilitate the calculation of tessitura and point tessitura.
### FREQUENCIES USED THROUGHOUT THE STUDY

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A brief survey of vibrato rates of female singers before 1940. Five measurements of sustained notes were taken at random intervals in a single recording and the mean was established. While this selection is by no means extensive, it does indicate a possible trend and an interesting starting point for further investigation.

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<tr>
<td>Adelina Pitti</td>
<td><em>Il Bacio</em></td>
<td>1903</td>
<td>7.5</td>
<td>38</td>
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<tr>
<td>Nellie Melba</td>
<td><em>Ave Maria</em></td>
<td>1913</td>
<td>7</td>
<td>50</td>
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<tr>
<td>Frieda Hempel</td>
<td><em>Il Bacio</em></td>
<td>1914</td>
<td>7.1</td>
<td>33</td>
<td>1.9</td>
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<tr>
<td>Amelita Galli-Curci</td>
<td><em>Les Filles de Cadix</em></td>
<td>1919</td>
<td>7.4</td>
<td>48</td>
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<tr>
<td>Lucrezia Bori</td>
<td><em>La Violatera</em></td>
<td>1928</td>
<td>7.2</td>
<td>62</td>
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<td></td>
<td>7.2</td>
<td>46</td>
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<tr>
<td><strong>Lyric Sopranos</strong></td>
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<tr>
<td>Evelyn Herbert</td>
<td>Wanting You</td>
<td>1929</td>
<td>5.8</td>
<td>63</td>
<td>3.6</td>
</tr>
<tr>
<td>Deanna Durbin</td>
<td><em>Il Bacio</em></td>
<td>1935</td>
<td>5.5</td>
<td>69</td>
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<tr>
<td>Jeanette McDonald</td>
<td><em>Les Filles de Cadix</em></td>
<td>1937</td>
<td>6.3</td>
<td>68</td>
<td>3.9</td>
</tr>
<tr>
<td>Deanna Durbin</td>
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<td>1938</td>
<td>6.3</td>
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<td><strong>Mean</strong></td>
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<td>6.0</td>
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</tr>
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<td><strong>Popular Singers</strong></td>
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<tr>
<td>Nora Bayes</td>
<td>Come Along, Mandy</td>
<td>1910</td>
<td>6.1</td>
<td>62</td>
<td>3.6</td>
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<tr>
<td>Lillian Russell</td>
<td>Come Own Ma’ Evenin’ Star</td>
<td>1912</td>
<td>6</td>
<td>73</td>
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<tr>
<td>Fanny Brice</td>
<td>My Man (torch song)</td>
<td>1921</td>
<td>7.1</td>
<td>59</td>
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<tr>
<td>Fanny Brice</td>
<td>Second Hand Rose (comedic)</td>
<td>1921</td>
<td>6.9</td>
<td>38</td>
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<tr>
<td>Ethel Waters</td>
<td>Dinah</td>
<td>1925</td>
<td>5.6</td>
<td>88</td>
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<tr>
<td>Ruth Etting</td>
<td>Shaking the Blues Away</td>
<td>1927</td>
<td>6</td>
<td>92</td>
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<td>Irene Bordoni</td>
<td>Let's Misbehave</td>
<td>1928</td>
<td>7.1</td>
<td>109</td>
<td>6.3</td>
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<tr>
<td>Ruth Etting</td>
<td>More Than You Know</td>
<td>1929</td>
<td>6.8</td>
<td>64</td>
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<tr>
<td><strong>Mean</strong></td>
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<td>6.5</td>
<td>73</td>
<td>4.2</td>
</tr>
</tbody>
</table>
AVERAGE SPOKEN FORMANT FREQUENCIES FOR WOMEN (Hz)

The information shown here was adapted from (Howard and Murphy 2008, 35 and 47), with regard to (McCoy 2012, 42-44), (Howard and Angus 2006, 210) and (Nair 1999, 276). Speech Assessment Methodologies Phonetic Alphabet (SAMPA) symbols were chosen because they use few special symbols that can be prone to misinterpretation.

<table>
<thead>
<tr>
<th>SAMPA</th>
<th>English</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>Beat, heed, pea, free</td>
<td>310</td>
<td>2790</td>
<td>3100</td>
</tr>
<tr>
<td>E</td>
<td>Red, chaotic, bet</td>
<td>600</td>
<td>2350</td>
<td>3000</td>
</tr>
<tr>
<td>A</td>
<td>Father, part, hard, last</td>
<td>850</td>
<td>1200</td>
<td>2800</td>
</tr>
<tr>
<td>{</td>
<td>anchor, bat</td>
<td>860</td>
<td>2050</td>
<td>2850</td>
</tr>
<tr>
<td>O</td>
<td>Boat, port, pope</td>
<td>590</td>
<td>900</td>
<td>2700</td>
</tr>
<tr>
<td>u</td>
<td>Boot, food</td>
<td>370</td>
<td>950</td>
<td>2650</td>
</tr>
<tr>
<td>3</td>
<td>Pert, stern</td>
<td>500</td>
<td>1650</td>
<td>1950</td>
</tr>
<tr>
<td>U</td>
<td>Foot, put, book</td>
<td>470</td>
<td>1150</td>
<td>2700</td>
</tr>
<tr>
<td>V</td>
<td>Rudder, but</td>
<td>760</td>
<td>1400</td>
<td>2800</td>
</tr>
<tr>
<td>I</td>
<td>Jib, bit</td>
<td>430</td>
<td>2500</td>
<td>3100</td>
</tr>
</tbody>
</table>
Appearing only a week after the opening of Leave it to Me, this cover shows the Mary Martin that first captured the imagination of a nation. Her simple prayer-like pose emphasized her innocence and her naivety. Her eyes look above the camera lens, not quite to the heavens, but certainly not directly at the reader; her lips are full and softly puckered for a sisterly kiss. Unruly curls frame her face; an unassuming bow hides her neck between chin, almost disguising the naked shoulder peeping out of luxurious fur.
On 23 October Martin appear on the cover for a second time. Poised and glamorous, with a decorous, fragile beauty – this portrait captures Martin as an aloof, not-quite-of-this-world figure. Statuesque with straight, long limbs draped in fluttering, diaphanous cloth, Martin was no longer the naïve young girl fresh from Texas, but a beautiful young woman. Dressed by haute couture designer Mainbocher, she was good-looking, elegant and desirable.

Martin’s performance in *One Touch of Venus* is discussed in detail in Chapter Six.
Mary Martin the American girl-next-door. All of the photographs taken by *Life* photographers capture the sheer joy Martin found in the role of Nellie Forbush. There are no glamorous clothes in this part; Martin spends much of her time on stage wearing a pair of shorts and a brassiere under a loose top. It was Martin's idea to actually wash her hair on stage, and many of the publicity photographs show her soaking wet and covered in shampoo. This vision of Martin stayed with the general public for many years, and she wore the same costume in the 1980 Royal Variety Performance when she performed with her son, Larry Hagman.

Martin’s performance in *South Pacific* is discussed in detail in Chapter Seven.
The Sound of Music
1959

Mary Martin’s coming of age as the American everywoman. *The Sound of Music* heralded Martin’s transition from youth to maturity. The role was physically and vocally demanding, and Martin prepared by vocalising for hours each day, singing scales while working out with a punching bag. In the show, she appeared in eighteen of the nineteen scenes and sang in ten – with a voice that was described as “human, emotional and touching…full of heart and spirit” (Davis 2008, 216). Her part ranged from C3 to D6, the widest range of her career, and the songs required acrobatic vocal skills for eight shows a week.
Martin the cultural icon. Martin played Dolly Levi in the touring company of *Hello Dolly* and travelled across the United States and Canada. An international tour followed with multiple shows in Japan, Korea, Hong Kong, India, Thailand, Lebanon and Vietnam. The company travelled to outlying bases, and visited hospitals as well as performing at Biên Hòa, and Nha Trang. Video footage taken by an NBC documentary team shows Martin singing a specially written verse “Hello, fellas, well hello fellas” after the bows at the end of the opening performance. After the sound of the applause, stamping and whistling, Martin’s captivating singing drew a palpable silence from the soldiers.
I Do! I Do! told the story of a fifty year marriage from youth to old age. It was a two person show, and Martin played opposite Robert Preston. In the words of the Life reviewer, they “seem[ed] to hug the spectators, making them feel like guests at a party where host and hostess will knock themselves out to give everybody a fine time.” (Life, 13 January 1967, 85) There were sixteen songs in the show and even when off stage changing, the players were often speaking through a microphone. McKay (1983) posits that this performance was the last step toward the establishment of the “Grand Dame” musical of the 1970s and 1980s (108). This cover did not go to press, instead replaced by a photograph of U.S. Navy Patrols travelling up the Vietnam Mekong River Delta.
APPENDIX E

MARTIN’S RADIO BROADCASTS 1938-1942

This list has been compiled using extant recordings from the Library of Congress in addition to the following online sites.


<table>
<thead>
<tr>
<th>Date</th>
<th>Show</th>
<th>Song</th>
<th>Song information</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-Jan-37</td>
<td>Nabisco Program</td>
<td>&quot;I've Got You Under My Skin&quot;</td>
<td>Cole Porter (1936)</td>
</tr>
<tr>
<td>25-Feb-38</td>
<td>Replacement show</td>
<td>&quot;I'm in a Dancing Mood&quot;</td>
<td>Al Hoffman, Maurice Sigler, Al Goodhart (1936)</td>
</tr>
<tr>
<td>25-Feb-38</td>
<td>Replacement show</td>
<td>&quot;Dancing in the Dark&quot;</td>
<td>Arthur Schwartz, Howard Dietz from <em>The Bandwagon</em> (1931)</td>
</tr>
<tr>
<td>25-Feb-38</td>
<td>Replacement show</td>
<td>&quot;Oh How You Captivated Me&quot;</td>
<td>Unknown</td>
</tr>
<tr>
<td>25-Feb-38</td>
<td>Replacement show</td>
<td>&quot;I'm in the Mood for Love&quot;</td>
<td>Jimmy McHugh, Dorothy Fields (1935)</td>
</tr>
<tr>
<td>25-Feb-38</td>
<td>Replacement show</td>
<td>&quot;Can't I?&quot;</td>
<td>Brad Green, Fabian Story, Marianne Brown Waters from <em>Right This Way</em></td>
</tr>
<tr>
<td>09-Jun-38</td>
<td>Goodnews of 1938</td>
<td>&quot;Serenade in the Night&quot;</td>
<td>&quot;Violino Tzigano&quot; by Cherubini</td>
</tr>
<tr>
<td>02-Feb-39</td>
<td>Rudy Vallee Hour</td>
<td>&quot;My Heart Belongs to Daddy&quot;</td>
<td>Cole Porter (1939)</td>
</tr>
<tr>
<td>02-Feb-39</td>
<td>Rudy Vallee Hour</td>
<td>&quot;Listen to the Mocking Bird&quot;</td>
<td>Richard Milburn, Septimus Winner</td>
</tr>
<tr>
<td>09-Feb-39</td>
<td>Rudy Vallee Hour</td>
<td>&quot;Deep Purple&quot;</td>
<td>Unknown</td>
</tr>
<tr>
<td>09-Feb-39</td>
<td>Rudy Vallee Hour</td>
<td>&quot;Waiting for Robert E Lee&quot;</td>
<td>Lewis Muir, Wolfe Gilbert (1912)</td>
</tr>
<tr>
<td>14-Dec-39</td>
<td>Goodnews of 1940</td>
<td><em>Great Victor Herbert</em></td>
<td>film trailer (1939)</td>
</tr>
<tr>
<td>1940</td>
<td>Love Thy Neighbour</td>
<td><em>Love Thy Neighbour</em></td>
<td>film trailer (1940)</td>
</tr>
<tr>
<td>1940</td>
<td>Rhythm on the River</td>
<td><em>Rhythm on the River</em></td>
<td>film trailer (1940)</td>
</tr>
<tr>
<td>07-Mar-40</td>
<td>Maxwell House Goodnews</td>
<td>Listed, but no song stated</td>
<td>-</td>
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<tr>
<td>21-Mar-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Vocalising song&quot;</td>
<td>with Dick Powell</td>
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<tr>
<td>04-Apr-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;My Heart Belongs to Daddy&quot;</td>
<td>Cole Porter (1939)</td>
</tr>
<tr>
<td>11-Apr-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Ta-ra-ra-boom-de-ay&quot;</td>
<td>Henry J. Sayers’ (1891) Used in <em>Happy Go Lucky</em> in 1943</td>
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<tr>
<td>Date</td>
<td>Show</td>
<td>Song</td>
<td>Song information</td>
</tr>
<tr>
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<tr>
<td>18-Apr-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Il Bacio&quot;</td>
<td>Luigi Arditi</td>
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<tr>
<td>02-May-40</td>
<td>Maxwell House Goodnews</td>
<td>Listed, but no song stated</td>
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</tr>
<tr>
<td>09-May-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;What's the Matter with Father?&quot;</td>
<td>Williams, Van Alstyne (1910)</td>
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<tr>
<td>16-May-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;He Loves Me, Yes&quot;</td>
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<tr>
<td>30-May-40</td>
<td>Maxwell House Goodnews</td>
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<tr>
<td>06-Jun-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Mr Gallagher and Mr Shean&quot;</td>
<td>Gallagher and Shean (1920s)</td>
</tr>
<tr>
<td>06-Jun-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Moonlight Bay&quot;</td>
<td>Percy Wenrich, Edward Madden (1912)</td>
</tr>
<tr>
<td>13-Jun-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Imagination&quot;</td>
<td>Jimmy Van Heusen, Johnny Burke (1940)</td>
</tr>
<tr>
<td>20-Jun-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Barnacle Bill&quot;</td>
<td>Traditional</td>
</tr>
<tr>
<td>27-Jun-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;I'm Nobody's Baby&quot;</td>
<td>Benny Davis, Milton Ager, Lester Santley (1921)</td>
</tr>
<tr>
<td>18-Jul-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;A Strauss Medley&quot;</td>
<td>Rickard Strauss</td>
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<tr>
<td>25-Jul-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;The Bill of Rights&quot;</td>
<td>from Meet the People (1940)</td>
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<tr>
<td>25-Jul-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;I Cried for You&quot;</td>
<td>Arthur Freed, Abe Lyman, Gus Arnheim (1923)</td>
</tr>
<tr>
<td>25-Jul-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Rhythm on the River&quot;</td>
<td>from Rhythm on the River (1940)</td>
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<tr>
<td>05-Sep-40</td>
<td>Maxwell House Goodnews</td>
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</tr>
<tr>
<td>12-Sep-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;That's for Me&quot;</td>
<td>Johnny Burke, James Monaco from Rhythm on the River (1940)</td>
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<tr>
<td>19-Sep-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Katy Went to Haiti&quot;</td>
<td>Cole Porter from Du Barry Was a Lady (1939)</td>
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<tr>
<td>07-Nov-40</td>
<td>Maxwell House Goodnews</td>
<td>A duet</td>
<td>with Dick Powell</td>
</tr>
<tr>
<td>14-Nov-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Floating Down the River&quot;</td>
<td>Johnny Burke, James Monaco from Rhythm on the River (1940)</td>
</tr>
<tr>
<td>05-Dec-40</td>
<td>Maxwell House Goodnews</td>
<td>&quot;Kemo Kimo&quot;</td>
<td>Traditional with Dick</td>
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<tr>
<td>Date</td>
<td>Show</td>
<td>Song</td>
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<td>12-Dec-40</td>
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<td>16-Aug-40</td>
<td>Bing Crosby Presents</td>
<td><em>Rhythm on the River</em></td>
<td>Film promotion (1940)</td>
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<td>17-Nov-40</td>
<td>Jell-O Program</td>
<td><em>Love They Neighbour</em></td>
<td>Film promotion (1940)</td>
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<tr>
<td>1941</td>
<td>Kiss the Boys Goodbye</td>
<td><em>Kiss the Boys Goodbye</em></td>
<td>Film promotion (1941)</td>
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<tr>
<td>08-Feb-41</td>
<td>America Calling</td>
<td>&quot;My Heart Belongs to Daddy&quot;</td>
<td>Cole Porter from <em>Leave it to Me</em> (1939)</td>
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<tr>
<td>25-Feb-41</td>
<td>Greek War Fund</td>
<td>Skit with Myrna Loy, Jack Benny and Bob Hope</td>
<td></td>
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<tr>
<td>1942</td>
<td>Star Spangled Rhythm</td>
<td><em>Star Spangled Rhythm</em></td>
<td>Film promotion (1942)</td>
</tr>
<tr>
<td>01-Jan-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Wait Til the Sun Shines Nelly&quot;</td>
<td>Harry Von Tilzer, Andrew Sterling (1905) from <em>Birth of the Blues</em> (1941)</td>
</tr>
<tr>
<td>29-Jan-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Wait Til the Sun Shines Nelly&quot;</td>
<td>Harry Von Tilzer, Andrew Sterling (1905) from <em>Birth of the Blues</em> (1941)</td>
</tr>
<tr>
<td>29-Jan-42</td>
<td>Kraft Music Hall</td>
<td>&quot;You Made Me Love You&quot;</td>
<td>James Monaco, Joseph McCarthy (1913)</td>
</tr>
<tr>
<td>29-Jan-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Rose O'Day&quot;</td>
<td>Charlie Tobias, Al Lewis (1941)</td>
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<tr>
<td>26-Mar-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Iceland Polka&quot;</td>
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<tr>
<td>26-Mar-42</td>
<td>Kraft Music Hall</td>
<td>&quot;A Couple at the Castle&quot;</td>
<td>Frank Loesser, Hoagy Carmichael</td>
</tr>
<tr>
<td>26-Mar-42</td>
<td>Kraft Music Hall</td>
<td>&quot;You Made Me Love You&quot;</td>
<td>James Monaco, Joseph McCarthy (1913)</td>
</tr>
<tr>
<td>02-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Indian Love Call&quot;</td>
<td>Otto Harbach, Oscar Hammerstein II from <em>Rose-Marie</em> (1924)</td>
</tr>
<tr>
<td>02-Apr-42</td>
<td>Kraft Music Hall</td>
<td>Mary and Bing sing pieces of songs to each other</td>
<td></td>
</tr>
<tr>
<td>02-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Pack Up Your Troubles in Your Old Kit Bag&quot;</td>
<td>George and Felix Powell (1915)</td>
</tr>
<tr>
<td>09-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Ma He's Makin' Eyes at Me&quot;</td>
<td>Sidney Clare, Con Conrad (1921)</td>
</tr>
<tr>
<td>Date</td>
<td>Show</td>
<td>Song</td>
<td>Song information</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>16-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Arthur Murray Taught Me Dancing in a Hurry&quot;</td>
<td>Johnny Mercer, Victor Schertzinger from The Fleet's In (1942)</td>
</tr>
<tr>
<td>16-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;He Comes From Timbukthree&quot;</td>
<td>comedic written by Victor Borge (1942)</td>
</tr>
<tr>
<td>23-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;I do'd it&quot;</td>
<td>unknown</td>
</tr>
<tr>
<td>23-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Lily of Laguna&quot;</td>
<td>Leslie Stuart (1898) and adapted by Ted Fiorito (1941)</td>
</tr>
<tr>
<td>30-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;He Comes From Timbukthree&quot;</td>
<td>comedic written by Victor Borge (1942)</td>
</tr>
<tr>
<td>30-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Friendship&quot;</td>
<td>Cole Porter Dubarry was a Lady (1939)</td>
</tr>
<tr>
<td>30-Apr-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Embraceable You&quot;</td>
<td>George and Ira Gershwin from An American in Paris (1928)</td>
</tr>
<tr>
<td>07-May-42</td>
<td>Command Performance</td>
<td>&quot;He Comes From Timbukthree&quot;</td>
<td>comedic written by Victor Borge (1942)</td>
</tr>
<tr>
<td>21-May-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Lily of Laguna&quot;</td>
<td>Leslie Stuart (1898) and adapted by Ted Fiorito (1941)</td>
</tr>
<tr>
<td>28-May-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Embraceable You&quot;</td>
<td>George and Ira Gershwin from An American in Paris (1928)</td>
</tr>
<tr>
<td>28-May-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Jingle Jangle Jingle&quot;</td>
<td>Frederick Hollander, Frank Loesser from the Forest Rangers (1942)</td>
</tr>
<tr>
<td>28-May-42</td>
<td>Kraft Music Hall</td>
<td>&quot;The Knitting Serenade&quot;</td>
<td>May be &quot;Knit One Purl Two&quot; by Ben Lorre (1942)</td>
</tr>
<tr>
<td>30-May-42</td>
<td>USO Program</td>
<td>&quot;Embraceable You&quot;</td>
<td>George and Ira Gershwin from An American in Paris (1928)</td>
</tr>
<tr>
<td>04-Jun-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Yip ay yaddee ay yeah&quot;</td>
<td>Comedic popular</td>
</tr>
<tr>
<td>Date</td>
<td>Show</td>
<td>Song</td>
<td>Song information</td>
</tr>
<tr>
<td>----------</td>
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<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>04-Jun-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Wait Til the Sun Shines Nelly&quot;</td>
<td>Harry Von Tilzer, Andrew Sterling (1905) from <em>Birth of the Blues</em> (1941)</td>
</tr>
<tr>
<td>04-Jun-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Ain't Misbehavin'&quot;</td>
<td>Harry Brooks, Fats Waller and Andy Razaf (1929)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Little Bo Peep Has Lost Her Jeep&quot;</td>
<td>Jerry Brown, Frank de Vol (1942)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Everything I've Got Belongs To You&quot;</td>
<td>richard Rodgers, Lorenz Hart from <em>By Jupiter</em> (1942)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;I Get a Kick Out of You&quot;</td>
<td>Cole Porter from <em>Anything Goes</em> (1934)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Cow Cow Boogie&quot;</td>
<td>Benny Carter, Don Raye, Gene De Paul (1941)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Together&quot;</td>
<td>unknown</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;WhenYou're Smiling&quot;</td>
<td>Mark Fisher, Larry Goodwin and Larry Shay (1925)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;He Wears a Pair of Silver Wings&quot;</td>
<td>Eric Maschwitz, Michael Carr (1941)</td>
</tr>
<tr>
<td>09-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;All Aboard for Blanket Bay&quot;</td>
<td>von Tilzer and Andrew Sterling (1910)</td>
</tr>
<tr>
<td>30-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Little Bo Peep Has Lost Her Jeep&quot;</td>
<td>Jerry Brown, Frank de Vol (1942)</td>
</tr>
<tr>
<td>30-Jul-42</td>
<td>Kraft Music Hall</td>
<td>Marching song about America</td>
<td>Unknown</td>
</tr>
<tr>
<td>30-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Conchita, Marquita, Lolita, Pepita, Rosita, Juanita, Lopez O'Toole&quot; (with Bob Crosby)</td>
<td>Jules Styne, Herbert Magidson (1942)</td>
</tr>
<tr>
<td>30-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;I Left My Heart at the Stage Door Canteen&quot;</td>
<td>Irving Berlin from the all army show <em>This is the Army</em> (1942)</td>
</tr>
<tr>
<td>30-Jul-42</td>
<td>Kraft Music Hall</td>
<td>&quot;I'll See You Again&quot;</td>
<td>from <em>Bitter Sweet</em> Noel Coward (1929)</td>
</tr>
<tr>
<td>11-Aug-42</td>
<td>Command Performance</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Show</td>
<td>Song</td>
<td>Song information</td>
</tr>
<tr>
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<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>08-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Wait Til the Sun Shines Nelly&quot;</td>
<td>Harry Von Tilzer, Andrew Sterling (1905) from Birth of the Blues (1941)</td>
</tr>
<tr>
<td>08-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Cow Cow Boogie&quot;</td>
<td>Benny Carter, Don Raye, Gene De Paul (1941)</td>
</tr>
<tr>
<td>08-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Dearly Beloved&quot;</td>
<td>Jerome Kern, Johnny Mercer from You Were Never Lovelier (1942)</td>
</tr>
<tr>
<td>13-Oct-42</td>
<td>Command Performance</td>
<td>&quot;Do it again&quot;</td>
<td>George Gershwin, Buddy Da Sylva from The French Doll (1922)</td>
</tr>
<tr>
<td>13-Oct-42</td>
<td>Command Performance</td>
<td>&quot;Wait Til the Sun Shines Nelly&quot;</td>
<td>Harry Von Tilzer, Andrew Sterling (1905) from Birth of the Blues (1941)</td>
</tr>
<tr>
<td>15-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Take Back Your Gold&quot;</td>
<td>Louis Pritzkow, Munro Rosenfeld (1897)</td>
</tr>
<tr>
<td>15-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;Dreaming You&quot;</td>
<td>Unknown</td>
</tr>
<tr>
<td>22-Oct-42</td>
<td>Kraft Music Hall</td>
<td>Going back in song to 1929 (skit)</td>
<td>Various</td>
</tr>
<tr>
<td>29-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;My Hero&quot;</td>
<td>from The Chocolate Soldier Herbert Stothart (film release 1941)</td>
</tr>
<tr>
<td>29-Oct-42</td>
<td>Kraft Music Hall</td>
<td>&quot;I'm Getting Tired So I Can Sleep&quot;</td>
<td>Irving Berlin from the all army show This is the Army (1942)</td>
</tr>
</tbody>
</table>