## D1 PROJECT TITLE

The shock of the old: Rediscovering the sounds of *bel canto* 1700–1900

## PROJECT AIMS AND BACKGROUND

The term *bel canto*—beautiful singing—commonly describes the admired vocal practices (originating in Italy) that were prevalent in Europe during the period 1700–1900 (Toft, 2011 and 2013). *Bel canto* repertoire has been central to Western classical musical programming since its heyday. Remarkably, the singers who originally performed this music had the ability to transform "the scores before them into passionate musical declamation [veritable orations] by treating melodic lines freely and by personalizing the music through both minor and major modifications" (Toft, 2013, 3). This was what composers from the period expected and, indeed, required. Research has established that when first performed, this repertoire sounded very different to today's performance conventions (Wistreich, 2000; S. Potter, 2014). Yet, little work has been done to rediscover how this singing might actually have sounded. This information cannot be recovered from music notation (scores) as only some fundamental musical practices of the era were captured; widely accepted conventions of singing were not notated.

*Bel canto* involved a range of creative liberties in realising the composer's expectations that were progressively abandoned during the late 19th and early 20th centuries, in favour of a more literal reading of the musical notation. It utilised myriad speech-derived effects and associated tonal colours—quite different from modern practice—to communicate to listeners the meaning, effect, and affect of the words (Toft, 2013, 4; Brown, 1999). How then was the continuum of *bel canto* practice understood during this period, and how can classical singers and vocal pedagogues today rediscover how these sounds and styles might be creatively used, to bring us closer to *bel canto* composers' expectations? Existing research provides only partial answers. It points to diverse practices, which supplied a rich palette of tonal options, and assisted in communicating words and melodies so that they "forcibly appeal" to a listener's feelings—the central tenet of *bel canto* (Turner, 1833, 183; Toft, 2011; McMahon, 2017, 3). Many of these practices are no longer transmitted through current vocal pedagogy. This project seeks to discover the sounds that singers in the *bel canto* period produced to communicate with listeners in such powerful ways.

- **Aims**

The main goal of this research-based creative project is **to recover** knowledge of *bel canto* practices and, through practical experiments, to develop a model that informs future advancements in vocal performance. The project will investigate the varied sound effects and colours that singers of employed in songs, and recitatives (a style of singing ordinary speech), arias (compositions for a single singer), cantatas (compositions in several movements with accompaniment), operas (theatrical works set to music with singing parts), and oratorios (large concert works with solo singers, choir, and orchestra). It will investigate **how these sound effects and colours were achieved in practical terms**. The acquisition and dissemination of this knowledge will be directed by world-leading experts in archival research, historically informed performance, practice-led methods, and performance science, working with a community of vocal practitioners (professional and higher-tertiary level singers) guided by the project aims:

1) to explore historical styles for *bel canto* repertory through implementation of a new multi-modal methodology combining recording emulation, and practical and collaborative active experimentation
2) to generate a taxonomy of *bel canto* sounds and practices documented in research-based exemplar recordings, made in a range of settings, to inform and expand classical singing practice, teaching and scholarship
3) to foster and influence change in classical singing, disseminating the project's approach and findings (through symposia, written outputs, and video and audio recordings) to networks of educators, practitioners and industry in Australia and internationally.

This project seeks to **re-invigorate** *bel canto*, to illuminate new ways of performing, understanding, and hearing its music. By the project's end, we will have acquired new knowledge of this significant era in music history, and will have tested and disseminated that knowledge through experimental research-based interpretations captured in recordings, and written outputs.

- **Background**

During the *bel canto* era, singers adapted their sound to the sense of the words to support an impassioned discourse thus positioning themselves as **primary creators of meaning** in the musical work (Toft, 2011; McMahon, 2013, 147–148). Early sound recordings capture the last representatives of the *bel canto* tradition. The recordings provide tantalising glimpses of these singers' performance practices. The singers include: sopranos Adelina Patti (1843–1919), Lilli Lehmann (1858–1929), Emma Albani (1847–1930), and the Australian-born Nellie Melba (1861–1931); the contraltos Marianne Brandt (1842–1921) and Ernestine Schumann-Heink (1861–1936); tenor Gustav Walter (1834–1910); and the baritones Peter Schram (1819–1895), Jean-Baptiste Faure (1830–1914), Sir Charles Santley (1834–1922), Victor Maurel (1848–1923), Lucien Fugère (1848–1935), Sir George Henschel (1850–1934), and Mattia Battistini (1856–1928). Their recordings retain elements of customs that reflect documentary evidence of late-18th-

and early-19th-century practice (Brown, 1999, 415–438; Toft, 2013, 234–35). These singers employed a mixture of high and neutral larynx positions (Toft, 2011; Potter, 2014, 20) and occasionally the lowered larynx (evidenced on recordings), naturally producing a spectrum of lighter sounds than is usually associated with the 'modern' mode of constant lowered larynx use (Toft, 2000, 25–26). In a variety of genres spanning Mozart to Verdi, their expressive techniques emphasised the text, and included: i) a generally narrower and less continuous *vibrato* (pulsating pitch change) than is currently employed (with some exceptions, for example in revenge arias); ii) frequent and subtly varied *portamenti* (audible sliding between two adjacent pitches); iii) marked alteration of note placements, rhythms and tempi; iv) matching of register and tone quality to the emotions evoked by the text; and, v) highly-articulated phrasing and pauses to define rhetorical figures (Toft, 2013). This is almost entirely different from current classical singing expectations (S. Potter, 2014, 2), though these techniques are still employed in jazz and other popular music forms.

By contrast, the characteristics of 'modern' vocal (and instrumental) performance style which developed during the 20th century have been defined as meticulous score realisation, and technical perfection (for example timbral evenness across the entire range of the voice), with the notation delivered 'artistically' but within the boundaries of strict rhythm and tempo (Brown in Peres Da Costa, 2012; Peres Da Costa, 2021a). In singing, growing concern at this time for projection in increasingly large spaces, above the tonal heft of a large modern orchestra or grand piano, led to the establishment of 'modern' vocal practices, which involved the sacrifice of some aspects of expressive interpretation including: i) modification of vowel sounds by darkening of tone through increase of space in the mouth and throat—low tongue and high soft palate—(Daffern, 2008, 180–181), making words incomprehensible (Ffrangcon-Davies, 1905, 263–264); ii) general adoption of a low larynx position (producing a characteristically dark vocal timbre) to access more space and resonance within the vocal tract and to increase energy around 3000Hz, producing the singer's formant (Sundberg, 1987, 118–119); iii) a generally wide, continuous vibrato of unvarying intensity resulting from the lowered larynx, which maximised the richness of long, unarticulated lines and increased audible clarity throughout the vocal range (Chapman, 2017; McCoy, 2019; Sataloff, 2006; Titze, 1994); iv) continual text emphasis, in which all syllables receive equal weight (Toft, 2000, 74); and, v) a monochromatic approach to timbre, regardless of the emotional qualities of text and music (Toft, 2013, 99). These have understandably (but inappropriately) become entrenched in the singing of *bel canto* repertory (S. Potter, 2014, 49).

Since the mid-20th century, historically informed performance (HIP) has generated palpable changes in vocal and instrumental performance style (Peres Da Costa, 2012, xxiv, and 2019). This has been fuelled by the increasing availability of performing practice information preserved in historical documentation (for example, treatises, correspondence, and concert reviews) distilled in **ground-breaking texts**, including: Donington (1963), **Brown** (1999, 2009) **Toft** (2000, 2013, and 2014), Haynes (2007), **Peres Da Costa** (2012); and, Haynes and Burgess (2016). Extensive information also exists on **Toft's** *Bel Canto (hip)* website funded by the Social Sciences and Humanities Research Council of Canada and his *Singing Early Music* YouTube resource, and by Leech Wilkinson (2009) on the CHARM website funded by the UK Arts and Humanities Research Council. Other texts on singing history (J. Potter and Sorrell, 2012), singing technique (Wistreich, 2000) and singing practice (**McMahon**, 2014 and 2017; Freitas, 2002) have provided insights into *bel canto*. Amongst singers, soprano Dame Emma Kirkby (b. 1949) stands out for her pioneering historically-informed interpretations which significantly departed from 'modern' singing norms (Margles, 2009). Other singers have followed in her footsteps. CI McMahon's numerous commercial recordings (see his F19) have demonstrated ongoing engagement with *bel canto* practices, and Toft's recording (2017) with his company Talbot Records is ground-breaking in its *bel canto* experimentation in appropriate size venues. But, the HIP revolution has been only patchily applied in vocal practice and pedagogy (S. Potter, 2014, 1), which has adhered to modern notions of *bel canto* (Daffern, 2008, 151, 330), concentrating on vocal technique, and with expressive interpretation as very much a secondary concern (Chapman, 2017).

The emulation (imitation) of early recordings to empower musicians to develop an aesthetically-aligned pre-modern performance style, in conjunction with cyclical processes as a springboard for extrapolating new performance practice data (see Methodology), has been used by CI Peres Da Costa and PI Brown in DP170101976 *Deciphering nineteenth-century pianism: invigorating global practices* (see also Peres Da Costa, 2021b). CI Peres Da Costa has supervised several practice-led PhDs using this methodological approach, and is currently supervising tenor Koen van Stade, who is developing historically-rich interpretations of Schubert and Schumann songs (available on CI Peres Da Costa's *Reinvigorating nineteenth-century performance* page on the SCM website). PI Brown has supervised similar practice-led PhDs (Fang, 2009; Develzouglou, 2010; Potter, 2014; Qu, 2015; Cho, 2017), and similar methodology has been used by Gebauer and Bausch (2016). Peres Da Costa, Mitchell and Stephens (2021c) showed how Sydney Conservatorium of Music' HIP students tasked with reimagining early-colonial music making in Sydney, benefitted richly from collaborative active experimentation rather than passive internalisation of information (see Methodology), matching the music with historically-appropriate practices, instruments and venue. CI Peres Da Costa and his doctoral student Koen van Stade have also undertaken such experiments (see CI Peres Da Costa's F17). In 2020, CIs Peres Da Costa and Mitchell (in conjunction with Van Stade) completed a pilot study with SCM postgraduate students: i) trialling early recording emulation; and, ii) engaging in collaborative active experimentation. This expands on CI Mitchell's

work in translating critical music literature to embed tacit concepts in music students' practice (Mitchell and Benedict 2017; Mitchell 2018), which has been proven to be a powerful mode of research.

## INVESTIGATOR(S)/CAPABILITY

### CIs, PIs, and RA

The investigatory team consolidates peak Australian and international expertise in archival research, historically informed performance (HIP) and practice-led methods (CIs Peres Da Costa and McMahon and the PIs), and performance science (CI Mitchell). Project lead **CI Peres Da Costa** is a world-renowned historical keyboard performer and authority on 19th-century piano playing who has also collaborated widely with singers. He, alongside the PIs, has undertaken extensive performance practice archival research and has developed distinctive practice-led methods for extrapolating pre-modern styles involving, for example: a) recording emulation and, b) practical experimentation with documentary evidence. **CI Mitchell**, who has academic background in singing, contributes expertise in performance science, deciphering listeners' perception of singing, and collecting and analysing data from musicians. She has innovatively designed active experiments to enable musicians to grasp unfamiliar or tacit knowledge through lived experiences. **CI McMahon** brings expertise as a scholarly and professional singer. With an international reputation as a tenor, CI McMahon specialises in historically informed performance, and has a sterling track record of creative research pertinent to this project. **PI Toft** is the world authority on *bel canto*, and is known internationally for his leadership of vocal workshops and masterclasses, and for providing specialist advice to singers internationally. **PI Brown** is the world's leading scholar in Classical and Romantic performance practice with particular specialisation in 19th-century violin playing and opera. The CIs and PIs have had extensive experience in HDR supervision and mentoring (see individual F17s). As Professor and SCM Associate Dean (Research) and previous Program Leader of Postgraduate Research, CI Peres Da Costa provides supervision, mentoring and leadership to the project as a whole.

Each of the CIs and PIs will commit 0.2 of their time to the project. CIs Peres Da Costa and McMahon and PIs Brown and Toft will lead archival research, vocal workshops, and the production of research-based recordings for the project's taxonomy. CIs McMahon and Peres Da Costa (together with the RA and HDRs) will collaborate in a research-based commercial CD output to promote the project's findings. CI McMahon's extensive links with networks of vocal practitioners, pedagogues and industry partners (see his F17) in Australia (the major conservatoires), and internationally (the major UK conservatoires) will, in addition to those of PI Toft (see his F17), enable the recruitment of participant vocalists and the industry take-up of the project's findings. CI Mitchell will oversee human ethics approval, will work with vocalists to investigate their description, perception and production of sound, and will be responsible for data collection and analysis (see Methodology).

The Research Associate (RA) will be a professional singer, who will bring honed experience in recording emulation techniques and archival research in 19th-century *bel canto*. Conversant in several langauges (Italian, German and French), the RA will contribute expertise in the vocal workshops, as well as to the project's research-based recordings, and will work towards a monograph on *bel canto*. A suitable candidate for the position has been identified as a current University of Sydney (USyd) doctoral student supervised by CI Peres Da Costa. CIs Peres Da Costa and Mitchell will co-supervise two HDRs at SCM (proposed as Doctor of Musical Arts candidates). A third HDR will undertake a practice-led PhD at the Australian National University (ANU) School of Music supervised by CI McMahon. All the team members will provide the HDRs with mentoring.

The CIs, PIs, and RA will collaborate to shed new light on the *bel canto* period of music history, its practices based in rhetorical delivery, and their illustration in sound. CI Peres Da Costa has fostered international linkages with PI Brown over 25 years culminating in their work together in DP170101976, illuminated by PI Toft, who was an invited expert advisor for the project (building on research links with SCM established in 1993). CI McMahon has collaborated with CI Peres Da Costa over a 20-year period, notably in early operas and oratorios (for example, with Pinchgut Opera). Through linkages with researchers from Oxford University, USyd and the ANU, he has produced world-premiere recordings streamed on the international platform *choix de chansons* (see his F17). He has established links with the international recording company Decca and in Australia with ABC Classics. CI Mitchell has forged strong links with high-level UK-based researchers Professor Raymond MacDonald (Edinburgh University) and Professor Jane Ginsborg (Royal Northern College of Music, UK), and with SCM Associate Professor Roger Benedict (including co-authored publications). She has collaborated with CI Peres Da Costa, piloting collaborative active experimentation (see Background above) including in the *Dowling Songbook* Project (2016) with Sydney Living Museums, winner of the National Trust (NSW) Heritage Awards 2017. The team has exceptional track record in traditional and non-traditional research, and will contribute to written and research-based recording outputs.

### HDRs and Vocal Practitioner Community

All voices have unique timbral qualities, and this was the same in the *bel canto* period. The project's vocal community provides a cross section of singers ensuring a similarly varied set of timbral qualities, a rich canvas on which to explore *bel canto* styles. The HDR candidates will comprise of three semi-professional or professional singers (soprano, alto and bass) to complement the team's other professional singers CI McMahon (tenor) and the RA. Three SCM Masters

students who took part in CIs Peres Da Costa's and Mitchell's 2020 pilot study (see above) have been identified as possible doctoral-level candidates. Their individual research projects will mimic the project's aims. The community of vocal practitioners will consist of 20–30 semi-professionals or professionals (including tertiary singing students) drawn from the research team's networks; they will contribute through group work to the mapping and translating of *bel canto* sound descriptors to sound qualities (see Methodology) to enrich the project's research-based recording outcomes.

***The Research Assistant*** will be responsible for administration and organisation of various aspects of the research project including online workshops, symposia, concerts, recordings, journal articles, symposia publication, and technical assistance in building the project's online repository.

## PROJECT QUALITY AND INNOVATION

- **Significant Problem**

*Bel canto* was essential to the music of the great composers of the Baroque, Classical, and Romantic eras; research in this area is therefore vital to understanding how those composers envisaged the performance of their vocal music. The unique performance culture of *bel canto*—the set of rhetorical principles that governed vocal delivery and that elevated the singer's discretion as prime in musical creativity in that era—has largely vanished; and our understanding of this significant period in music history is skewed. These facts are substantiated by written documentation (Toft, 2013; McMahon, 2017; J. Potter, 2012; S. Potter, 2014; Wistreich, 2012), and by performances captured in early recordings (some mentioned in Background above). *Bel canto* vocalists, like their instrumental colleagues, understood that artistic refinements, which enhanced expression to impress "the sense of the words" on the minds and hearts of listeners—the central tenet of *bel canto*—could not be communicated in the score (Toft, 2013). These were thus "resigned to the singer's sagacity and discretion" (Nathan, 1836, 290), in order to convey the spirit of the music (Peres Da Costa, 2019, 147–148, and 2021a). With a focus squarely on text communication, *bel canto* artists shaped musical structures by imbuing them with sensuous colours, dramatic accents, and varied timings to bring the words and their meaning into bold relief and to affect the listener's perception markedly. The tendency of modern classical singers (and instrumentalists) to regard the music score as authoritative (Cook, 2001; Dubal, 1992, xix), has dramatically changed the scope of their creative input. This is a hotly contested issue in the field of classical singing, because knowledge of rhetorical delivery for *bel canto* seriously challenges ingrained singing methods based on developments of a later era.

The term *bel canto* has been appropriated by the music industry since the early-20th century without acknowledging its long-established attributes (Crutchfield, 1986). It is frequently misunderstood and misused as a synonym for conventional modern performance of 18th- and 19th-century repertoire. *Bel canto* expressivity has the power to completely transform how we experience the music and the era. This project will interrogate: i) how *bel canto* actually sounded; and, ii) what methods singers used to make such sounds. Research so far suggests that singers today are unnecessarily restricted to practices that prioritise less individualistic styles of expression (Chapman, 2017), which diverge dramatically from *bel canto* practices. This results in diminished clarity of diction, a homogeneity of style, and stylistically-inappropriate expectations of what singers should sound like in *bel canto* repertoire. Further research is needed to build knowledge that can influence current singing pedagogy to embrace decisive change.

The staple vocal repertoire of opera house and concert hall programming comes from the *bel canto* period. For example, in 2019/2020, Opera Australia were set to present (in Sydney) Bizet's *Carmen,* Mozart's *Don Giovanni*, Gounod's *Faust,* Verdi's *Attila*, and Puccini's *La Traviata* (Opera Australia, Sydney 2020). And the Wigmore Hall's "Song Recital Series" (in London) promoted predominantly bel canto repertoire (Wigmore Hall, 2019/20 Season). But the generally 'one sound fits all' approach of modern classical singing hampers the expressive communication of text. Moreover, it constrains talented singers through a lack of information about essential but unfamiliar *bel canto* sounds and practices.

The project addresses a significant problem: the serious mismatch between singing style and repertoire choice. This often occurs, for example, when impresarios and conductors give preference to singers for their vocal power, rather than for interpretations grounded in historically-informed techniques. This is even noticeable when period-instrumental ensembles do not collaborate with specialist singers. The disparity in style has led to "absurd effects" (Brown, 2009, 85) and dichotomous approaches (S. Potter, 2014, 3); and for some it represents a "tremendous debasement of classical singing by the professionals" (Bethel, n.d.). There are no good reasons why the artistic refinements associated with *bel canto* cannot be reintroduced today. They are not injurious to the voice and can be achieved whether using high, neutral, or low larynx positions, and in the largest of performing spaces. This project's key impetus is to develop models for *bel canto* that enable a radical departure from current singing practice, while being simultaneously embedded in rigorous historical research, supported by expertise in practice-led methods.

- **Innovation**

This project positions Australia at the forefront of innovation in research about classical singing. Nothing of this kind, involving collaboration between senior musicologists, scholarly professional singers, and tertiary vocal students, has yet been attempted. It is an opportunity to stimulate creative innovation and change in an area of music-making that has the potential for major cultural impact.

The project looks at historical evidence of *bel canto* in an entirely new way. To do this, the project: **develops a new multi-modal methodology**; a unique prism through which to examine *bel canto* that re-establishes alignment with its original purpose. Its vocal practitioners will be subject to **practice-led techniques that go above and beyond the current methods of learning *bel canto* repertoire** (including in HIP), firing their imaginations and empowering their artistic creativity. They will drive the creation of new knowledge of *bel canto* sounds and practices. The framework combines three methods (**Aim 1**) piloted by the research team but as yet to be adopted widely by the singing profession. Each constituent method provides a logical step in **recovering** knowledge and experience of *bel canto*:

1) emulation of early recordings of singers
2) practical experimentation with documentary evidence to extrapolate earlier vocal sounds and practices
3) knowledge creation through active collaborative performance trials and critical listening

This systematic process will develop new understanding of *bel canto* by singers, for singers. In so doing, it will also advance knowledge of music history, performance practice, and vocal repertoire in the 18th and 19th centuries.

The sound exemplars of *bel canto* derived through this means will be embedded in the **project's taxonomy** (**Aim 2**) **openly accessible via an online repository**, available to institutions of learning, scholarly researchers, and the wider public. This will be a comprehensive resource for *bel canto*, <u>the first of its kind</u>. It will also **provide the tools of change, to underpin the restoration of the singer as primary creator** in the interpretation of music of the era (**Aim 3**).

Another innovation is the project's proposal **to examine what effect different, era-appropriate venues and instrumental forces have on singers' delivery** (**Aim 2**). This departs significantly from the current fixation on vocal power to mitigate issues of balance, which adversely affects how singers approach expressivity in *bel canto* repertoire.

- **Hypotheses**

The project seeks to illuminate the sound effects and colours of *bel canto* (1700–1900) described in documentary evidence, and preserved on early recordings which provide glimpses of a forgotten *bel canto* sound world. Based on this, we hypothesise that there was a rich and varied vocabulary for *bel canto* which is yet to be rediscovered, and that will entirely change how we experience and understand this extraordinary period in music history.

- **Methodology**

The project's aims will support our hypothesis, and influence change through this new knowledge *of bel canto*. The aims will be realised through the following research components (see Figure 1 Timeline below):

***Preliminary Research***: a) recording emulation; and, b) performance practice archival work (see Background above).

***Archival Research Work*** (**Aim 1**): the team will explore historical styles for *bel canto* repertory by undertaking comprehensive mining of documentary sources. In Years 1 and 2, the RA and HDRs will examine treatises, journals, correspondence, reviews, annotated editions, and online resources of word-searchable databases containing historic newspapers and journals, such as British Periodicals, AustriaN Newspapers Online (ANNO), Haithi, and Archive. During Years 1–3, the team (guided by CI McMahon, the RA and PIs Toft and Brown) and vocal practitioners will interrogate written sources from England, Germany, France and Italy (containing detailed performance instructions) including: Francesco Lamperti's *Guida teorico-pratica-elementare* (1864); Maria Anfosi's, *Trattato Teorico-Pratico Sull'arte Del Canto* (1847); Manuel García's *Traité complet de l'art du chant* (1847); Thomas Welsh's Vocal Instructor (c.1825); Joseph Mainzer's *Singschule* (1831); and, Johann Hiller's *Anweisung* (1782); various writings between 1818 and 1827 that describe John Braham's singing of Handel's "Deeper and deeper still" (*Jephtha*); and Domenico Corri's *Select Collection* (c.1783/1795). Additionally, they will examine numerous early-19th-century sources with hand-written emendations relating to vocal expression, and written down embellishments of famous singers, particularly the opera singers Elizabeth Billington (c.1765–1818) and Angelica Catalan (1780–1849), as well as various 18th-century manuscripts that contain ornamentation.

***Practical Research Work*** (**Aim 2**): in group workshops during Years 1–3, vocal practitioners (guided by the team) will undertake practical experimentation with *bel canto* repertoire to realise new styles, and will make research-based exemplar recordings (video and sound) at key stages. There will be opportunities to trial interpretations at venues offering appropriate acoustic, size and setting: historic house drawing rooms and theatres (for example, Elizabeth Bay House in Sydney). Research shows that the smaller shoe-box rooms of the past, with their abundant early sonic reflections, directly influence tonal quality, articulation style and phrasing (Pätynen et al., 2014). This will afford the possibility of focusing on *bel canto* expressive practices without having to resort to the type of vocal projection that larger concert spaces tend to encourage. Subsequently, vocal practitioners will trial how these interpretations can be adapted in larger concert spaces (for example, Verbrugghen Hall at SCM, Sydney Town Hall and Sydney Opera House Concert Hall), with either low, neutral, high, or flexible larynx positions. This stage will also involve experimentation with different types of instrumental accompaniment: lutes, harpsichords, historical pianos, modern pianos, and period and modern orchestras, to investigate how different instrumental sounds and textures affect vocal delivery.

The production of exemplar recordings will be coordinated the Research Assistant with oversight from SCM's Media, Production and Technology Manager Dr David Kim-Boyle to ensure quality control. The Research Assistant

will generate and build the project's taxonomy on the USyd sustainable open-access e-Scholarship (on-line) repository, first cataloguing descriptors of *bel canto* sounds and practices, and then embedding the catalogue with the exemplar recordings, matching descriptions with likely sound qualities. The Research Assistant will design a user-friendly website portal with a suitable software such as Squarespace. Additionally, a commercial CD recording of *bel canto* repertoire will be made by CIs McMahon and Peres Da Costa, the RA and HDRs, in historically-appropriate venues, utilising a range of instrumental forces available at SCM, to further promote the project's processes and findings.

*Organisational-related Research Work* (**Aim 3**): to facilitate and foster change in singing practice, in Years 1–3 the project will support: a) modules in which vocal practitioners will engage in practice-led processes (guided by the team) to extrapolate *bel canto* styles, and ensure the take-up of these as vocalists contribute to the project's findings through their research-based interpretations; b) symposia in each year to present findings to pedagogues, professional singers, and industry; and, c) written and recorded outputs which will disseminate and embed new knowledge of *bel canto*. The Research Assistant will be responsible for the coordination of these events and production of research outputs.

### *Figure 1: Timeline*

| | Year 1 | Year 2 | Year 3 |
|---|---|---|---|
| *Preliminary Research* | See Methodology | See Methodology | See Methodology |
| *Team planning meetings 4–6 times per year* | Human research ethics application (*HM*) | Schedule: modules and recordings (*All*) | Schedule: modules and recordings (*All*) |
| *Archival Research* | Untapped documentary sources (*RA, HDRs*) | Untapped documentary sources (*RA, HDRs*) | |
| *Recording emulation* | Early recordings (*All*) | Early recordings and new exemplar recordings (*All*) | Early recordings and new exemplar recordings (*All*) |
| *Bel canto extrapolation* | Late-19th-century repertoire (*All*) | Earlier-19th and 18th-century repertoire (*All*) | 18th-century repertoire (*All*) |
| *On-line Repository* | Building (*Research Assistant*) | Embedding (*Research Assistant*) | Completing (*Research Assistant*) |
| *Symposia* | Recording emulation (*All*) | 19th-century *bel canto* (*All*) | 18th-century *bel canto* (*All*) |
| *Dissemination scholarly outputs* | Article: recording emulation (*NPDC, PM, RT, CB*) | Articles: i) experiential learning (*HM and NPDC*); ii) methods of *bel canto* extrapolation (*NPDC, PM, RT, CB*) | Edited book: *bel canto* (*NPDC, PM, RT, CB*) Commercial CD recording (*PM, RA, HDRs and NPDC*) |

The Conceptual Framework model (Figure 2 below) illustrates the steps that the project's vocal community will follow to create new knowledge of *bel canto*, first embodying ideals of late-19th-century *bel canto* by emulating early recordings, before undertaking practical experimentation to envisage earlier *bel canto*.

### *Figure 2: Conceptual Framework*
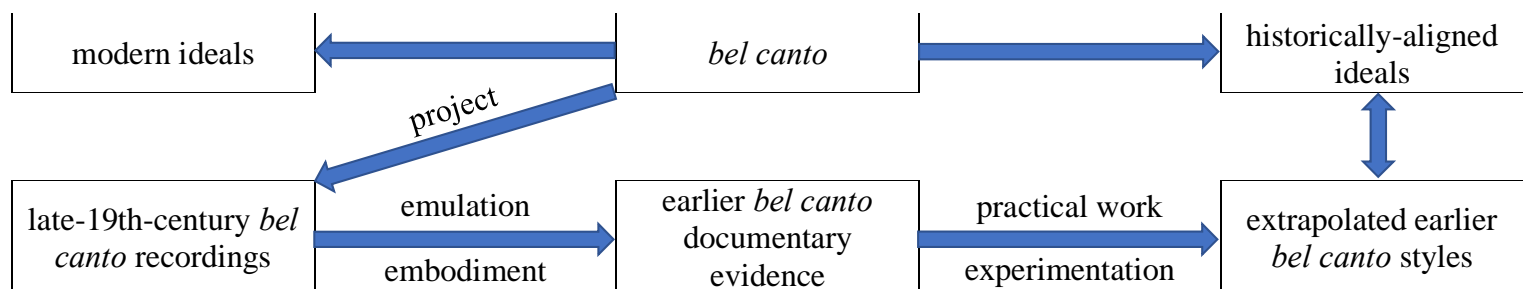


These steps are achieved through a series of **research modules**:

**Foundation module: early recording emulation**

Each singer in the project's vocal community will adapt their approach to *bel canto* repertoire using tried and tested methods of recording emulation (guided by CI Peres Da Costa and PIs Toft and Brown). This is the most effective way for vocal practitioners to embody the expressive language of late-19th-century *bel canto*. They will imitate in minute detail the recorded outputs of famed late-19th-century singers (some outlined in Background above) including recitatives and arias in cantatas, oratorios and operas, and songs by for example H. Purcell, J.S. Bach, Handel, W.A. Mozart, Schubert, Schumann, Rossini, Bellini, Donizetti, Verdi, and Wagner. These recordings are readily accessible on commercial CDs and via online repositories such as the National Film and Sound Archive here in Australia, the Yale Collection of Historical Sound Recordings and the British Library Sound Archive. This involves repeated listening, annotation of performance characteristics, embedding of technical and expressive skills, recording (audio and video), listening back, critical comparison, journaling, workshopping and peer review, and further embedding of

practices through practise.

By this method, our vocal community will embody the recorded singers' styles in respect of rhythms, tempi, dynamics, expressive nuances (for example, *vibrato* and *portamento*) and other *bel canto* interpretative facets. The act of embodiment will provide vocalists with a vital dimension of understanding by uncovering incongruities between practice and its theoretical description. This is important as it informs the reconstruction and knowledge creation (extrapolation) of earlier *bel canto* styles. Most importantly, it will help them to avoid subconsciously applying 'modern' performance ideals to earlier music. Each singer will undertake multiple emulations. They will use this knowledge in conjunction with documentary evidence in practical experiments to extrapolate late-19th-century *bel canto*-aligned interpretations of other works (including larger ones) that were not recorded. We will capture all interactions among vocal practitioners and the research team, through audio-visual recordings of workshops, interviews and including any notes vocal practitioners make about their emulation process, for analysis by CI Mitchell (see below).

Delivery of research training modules on Zoom during the Covid-19 pandemic in 2020 has rendered the team absolutely confident of running this Foundation Module as a regular series of workshops on Zoom (with some in-person sessions when possible). CIs Peres Da Costa and Mitchell successfully piloted similar workshops in second semester 2020 with HDR students at SCM, run face-to-face and on Zoom. This involved: a) sessions on HIP theory and philosophy, emulation methods, and analyses of early recordings; b) sessions in which students presented their recording emulations (in-person or pre-recorded) and their study materials such as annotated scores, for comparison with the original early recording, workshopped and with guided feedback from the CIs and HDR cohort; and, c) further work by students to develop and hone their emulations which they presented again in later sessions. This Foundation Module will be offered as 12 x 2-hour sessions in the first half of Year 1 to be run at times suitable to international time zones. Additionally, the CIs and PIs will run extra face-to-face sessions in Australia, Europe and Canada depending on Covid-19 restrictions. Singers joining the project at later stages of Years 1–3 will also undertake this Foundation Module before commencing other modules, and will have access to all study materials and previous recordings of the Foundation Module made available via the SCM website.

## Practice-led modules: extrapolating 18th- and 19th-century *bel canto*

Recording emulation builds the aesthetic prism through which vocalists will undertake practical experimentation with evidence in documentary sources. This is the best means to extrapolate earlier *bel canto* styles. We will design and deliver various modules in online workshops, and some face-to face sessions (whenever possible) during Years 1–3. Given the vast array of *bel canto* repertory and sources of information in the period 1700–1900, these modules will focus particularly on varying styles of theatrical and chamber recitative; arias in operas, oratorios, and secular cantatas; and lieder/song, moving backwards sequentially from the late-19th to the early 18th centuries. Each module will be run over eight 2-hour sessions (approximately 10 modules) and will be led by individual team members who have developed particular techniques. For example, PI Toft helps singers develop and acquire knowledge through practical experiments focusing on particular techniques and interpretive skills one at a time (such as pausing, *messa di voce*, *portamento* and ornamentation). In tandem, singers gain skills in reading the texts of recitatives and arias as spoken dramatic readings. This builds foundations for them to become orators of song (they gain a better understanding of phrasing; they build awareness of where *messa di voce* and *portamento* are naturally applied in speaking, and transfer this into singing). Subsequently, taking a broader approach, singers apply these techniques in delivery of the stories in recitatives and arias, with emotionally-persuasive results. The exemplar recordings resulting from these modules will serve as further models for emulation as the vocal community extrapolate backwards in time.

Each module will encapsulate two **pathways to knowledge building:**

**1)** **Cyclical Work**: vocalists' practical experimentation with documentary sources "influences reconsideration of sources and theories, and in turn further practical experimentation" (S. Potter, 2014, 10). The practical knowledge gained and exchanged will inform the interpretation of a wide range of works. In this way "individual styles and techniques" can be practised in the context of other works to influence further thought and research. CIs Peres Da Costa and McMahon and PIs Brown and Toft will guide the **cyclical research** process (see Figure 3 below) to "allow the constant re-evaluation of each aspect in the context of the other" (S. Potter, 2014, 10). It will expand flexibility, open-mindedness, and adaptability of vocalists. It will provide a framework on which to calculate, with collective expert opinion, how singing sounded in the pre-recording era, for which the only evidence comes from written sources.

**2)** **Collaborative Work**: a further, vital dimension of understanding and knowledge creation will take place in each module through collaborative active experimentation (guided and monitored by CI Mitchell). In emulating recordings, vocal practitioners will have honed their listening acuity for unfamiliar vocal qualities and styles. Subsequently, they will think critically about and discuss the vocal techniques that *bel canto* pedagogues in the pre-recorded era prescribed to achieve qualities and styles, and will take particular note of the language in contemporary reviews and accounts to describe the resulting sounds (Mitchell, 2014). From this informed standpoint, each singer will undertake practical experiments to realise envisaged vocal qualities, working closely with the team's experts and vocal community to reflect upon their best interpretations of sound both as singers and as listeners. This strategy, in which

singers' participation is active, encourages interpretative autonomy, critical reflection and in-depth discussion (Mitchell, 2018). This applied research group-work method—which enables the mapping and translating of *bel canto* sound descriptors to sound qualities—is a proven means to build professional community-driven results and ensure systematic, iterative peer review. CI Mitchell will track the vocal communities' experiences through observation, recordings, interviews, group discussions and journaling, charting their knowledge creation. She will code this data using the qualitative data analysis software Nvivo to discover singer-focussed strategies, and to identify new *bel canto* concepts, which will be built into the taxonomy (**Aim 2**). This will highlight the most efficacious and effective strategies for realising new vocal qualities (**Aim 3**).

*Figure 3. Adapted illustration of cyclical practice-led research process (S. Potter, 2014, 11)*

| Treatises | Criticism | Letters | | | Emulation | Realisation |
| Reviews | Biographies | Recordings | THEORY → PRACTICE | | Experimentation | Dissemination |

- **Building International Collaboration**

The project connects expert researchers from the USyd and the ANU with two international institutions. PI Brown's and Toft's involvement in the project fosters new collaboration between USyd, ANU, and both the University of Music and Performing Arts, Vienna and Western University, Ontario. This project will enable the team to undertake crucial collaborative research work with an international community of vocal practitioners including leading scholars and performers in Australia, Europe, and North America. Through workshops, research-based recordings and symposia both online and face-to-face, the project will provide an impetus for substantial and lasting impact in the field of classical singing worldwide.

## BENEFIT

This project will effect a renaissance of *bel canto* music in Australian institutions and concert venues, inspiring diversity to break entrenched models and pedagogies. During the course of this carefully devised, systematic investigation, it is expected that ground-breaking new knowledge about *bel canto* practices will be developed. There are substantial benefits to this.

**Scholarly Benefit**: The project stands to trigger a major transformation in how *bel canto* repertoire is perceived. By making text communication a primary object, the project will bring new understanding of the relationship between text and music. This will enable a shift in interpretation across many musical elements, in the ways phrases, rhythms, tempi, ornamentation, melodic shapes and other musical structures are delivered. It will unlock the music from the rigidity of 20th-century approaches, giving rise to new ways of understanding and hearing it, and providing a window into a very significant period of music history.

**Cultural Benefit:** The project's objective to explore means of expressivity appropriate to *bel canto* that are not currently the focus, is likely to lead to a broadening of opportunities for singers who would otherwise not be considered for *bel canto* repertoire, in new performance interpretations, for example, by industry partners such as Pinchgut Opera. The project will bring revitalisation of repertoire that is at the heart of Western canonic music, allowing fresh new interpretations to enter the discourse around musical meaning.

**Social Benefit**: The project addresses a major lacuna in research on *bel canto* performance practice. Documentary research into historical singing practice and aesthetics has, as yet, had little impact on the singing profession. A principal reason for this is the paucity of convincing vocal models. This project will provide these, based on the most rigorous evaluation of early sound recordings and documentary sources. It has the strong potential to impact tertiary curriculum development in classical singing, providing an evidence-based approach that will help to revitalise pedagogies and shift entrenched approaches. This will have a 'knock on' effect for allied disciplines including instrumental performance and conducting. This knowledge transmission is expected to have wide community take-up.

The project will expand the palette of interpretative choices available to singers for *bel canto* repertoire. Such knowledge will upskill singers to shape new interpretations with an oratorical style of delivery. These new choices of expressive means will stimulate singers' imaginations, liberating them from an aesthetic of musical verisimilitude. This is likely to have a marked impact on how singers engage with audiences, bridging the divide between classical singing and popular music forms, which will in turn help to pique audience interest and understanding in *bel canto* repertory, and lead to audience development and participation in Australia.

**Economic Benefit**: The project will bring sustained and renewed endeavour in classical singing and increase in creativity. It is therefore expected to enhance: a) sustainability by building singing careers that offer new and novel selling points; and, b) increased and varied activity including growth in concerts and recordings. The project will benefit Australia's workplace capability by providing rich training opportunities for a Research Associate and three HDRs. They will gain cutting-edge knowledge of, and experience in HIP, and practice-led processes from the team's experts.

## FEASIBILITY

The project's budget is **cost effective** as workshops take place largely via Zoom, thus minimising travel costs. Budget

items align with the research plan, which include the RA and HDRs who are integral to archival research and recordings, the Research Assistant who will do much of the background organisational work and the building and embedding of the on-line repository. The team have **piloted research** that underpins the project's methodological processes (see Background and Methodology) that will be brought together for the first time in this project. The project is also strongly underpinned by the CI's and PI's published research (see Background and individual F19).

The **research environments** in which the project will gestate—Sydney Conservatorium of Music, ANU School of Music, the University of Music and Performing Arts, Vienna (MDW), and Western University, Ontario—are recognised as centres for excellent research supporting postdoctoral and HDR candidates. These provide access to a wide range of research tools through their various institutional library collections. They also provide access to academic and professional staff support, and provide opportunities for research presentations including colloquia, creative work and other seminars, HDR symposia, and research and publishing mentoring. SCM is known for its established Opera School and Vocal Unit, and academics such as Dr Alan Maddox (vocal gesture expert) and Dr Erin Helyard (Artistic Director of Pinchgut Opera), providing practical and academic support for the HDRs. The ANU HDR will also have access to this support at SCM, and through its various seminar offerings lead by CI McMahon. CIs Peres Da Costa and Mitchell have access to a wealth of **research mentorship** from SCM senior researchers such as Emeritus Professor Linda Barwick (SCM, Charles Perkins Centre, PARADISEC), Professor Anna Reid (Head of School and Dean SCM) and Professor Liza Lim (Sculthorpe Chair of Australian Music). CI McMahon has access to mentorship from Emeritus Professor Malcolm Gillies AM (ANU) and Associate Professor in composition and convenor of Musicology Dr. Kim Cunio (ANU). These research environments therefore support the project's feasibility, its aims and outcomes.

These institutions also provide plentiful **in-kind resources** which are directly pertinent to the project's aims and the HDR students' needs including rehearsal and concert venues, and recording and editing amenities. Importantly, the team will have access to essential professional recording production and engineering resources through: a) SCM's Media, Production and Technology Manager; and, b) PI Toft who has established his own recording company Talbot Records. They will liaise to ensure the quality of the project's recordings. CIs Peres Da Costa and McMahon have long term relationships with ABC Classics making it highly likely that the project's proposed CD output will be published on that label. Particularly pertinent is the access to world-class historic keyboard collections at SCM and ANU that are appropriate for a significant proportion of *bel canto* repertoire. Additionally, CI Peres Da Costa will also have use of his private historic keyboard collection. Similar resources are also available at the PI's respective institutions. The CIs and PIs institutions have specific strengths in historically informed performance of European vocal and instrumental music. CI Peres Da Costa, founder of SCM's Historical Performance Division (see his F17), has spear-headed many ongoing opportunities for singers to engage with historical performance within its curriculum. At the ANU School of Music, CI McMahon leads a team of scholarly performers who frequently intersect with music of the past through theoretical and practical considerations exploring solo and chamber music repertoire and historical musicology. Since 1989, PI Toft has inspired many student singers at Western to engage with principles of rhetorical delivery. At MDW, PI Brown is building a cohort of HDR students (including singers) working in historical performance. In support of PI Brown's work in this area, MDW provided its facilities for the DP170101976 Vienna conference (2019), largely cost-free (see CI Peres Da Costa's F17). In support of the project's proposal to test the effect of venues on singer's delivery, generous access is available to many colonial and other 19th-century buildings in NSW through the CIs Peres Da Costa's and Mitchell's established association with Sydney Living Museums. In Vienna, PI Brown has access to 18th- and 19th-century music venues through his institution. While London Ontario does not have historic venues of these types, PI Toft's institution has a range of venues of different sizes that are suitable for the project's needs.

This project's feasibility is ensured by the team's **complementary expertise** across the constituent processes within the multi-modal methodology. The team's experts have already established links that underpin strong **collaborative work relationships** (see Investigator(s) Capability). CI McMahon and PI Toft have a network of contacts with vocal communities around the world. Their involvement in the project will inspire confidence and ensure participation in the project by professional specialist singers. The concept underpinning the project is similar to that used in DP170101976, and by the CIs and PIs in various practice-led work with HDR students (see Background). The project has been designed in well-structured and accepted formats including workshop activities via Zoom and a modularised research program. The Figure 1 Timeline (above) shows who will be responsible and when, to ensure a timely and successful completion.

## COMMUNICATION OF RESULTS

Research will be disseminated in accordance with the ARC's policy on open access; all published outputs will, when possible, be deposited in the open-access e-scholarship repository, the institutional repository of the University of Sydney within 12 months of publication. The project's taxonomy with embedded exemplar recordings will also be made available through the e-scholarship repository. An edited book (collating papers and presentations from the symposia) published by Oxford University Press will disseminate new knowledge of *bel canto*, a practical guide *to bel canto* styles. CI Peres Da Costa and PIs Brown and Toft already have a strong relationship with OUP. Three journal articles will be published: i) recording emulation in the online journal *Music and Practice* or similar; ii) the project's collaborative active experimentation processes and outcomes in *Musicae Scientiae* or similar; and, iii) methods of 18th-

and 19th-century *bel canto* extrapolation in *Early Music* or similar. Research data and results of the project will be disseminated at the symposia and through public presentations at the SCM, ANU, MDW, Western and other national and international institutions (Covid-19 permitting), and radio broadcasts by national and international broadcasting companies. The commercial CD with CIs McMahon and Peres Da Costa, the RA and the HDRs will be published by ABC Classics with world-wide distribution.

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