

## Phoenix Angel Project 2019 - 2022

### A harp journey inspired and supported by Judith Neilson, the Phoenix Foundation, Sydney

*Outlining the nature of harp, as an aid in understanding composition for the instrument, and how this informed the process which culminated in the performance event "Phoenix Angel".*

**The harp is an instrument of enormous expressive and tonal range, which has yet to reach its full potential.**

Since the earliest human musical expression, starting with the resonance of the plucked sinew, forms of harp have been present in nearly all human societies. As expressions of both subtle and powerful emotion, the vibrations of strings and sound box resonate in correspondence with the tensions of the heart muscles in the chest cavity, possibly accounting for ancient angelic and mystical associations.

In current western musical culture, there are widely different understandings of what the harp is, how to write for it, and what its function in musical expression should or could be. Paradoxically this is partly due to its ancient history and adaptability. The whole aesthetic of sound, musical role and symbolic status of the harp can change dramatically between eras or cultures, causing confusion.

At the start of the 20th century, the compositions, performance and teaching of Carlos Salzedo marked one such revolution in the concept of the harp. Salzedo moved the harp from a musically keyboard-related instrument, to one that used gesture to create sound colours. This did not mean that the available notes were no longer played, but that the starting point for conceiving composition and performance on the instrument could be about resonance, about using the body in a variety of gestures to produce different resonances. These gestures included what we now refer to as "extended techniques", which are basically any way of producing sound other than with the conventional action of fingertips on the strings. But they also encompassed methods of influencing the sound before and after the playing of the string from an understanding of the instrument's essential nature: the tension on the string, directly in contact with the player's finger, is released and then rings on until physically stopped by the hand; this resonance is in itself a real vibratory phenomenon which is affected and controlled through the harpist's gestures. This is not an imaginary effect, but one which can be demonstrated, with the hand and arms becoming like the bow on a stringed instrument, or the breath of the singer or wind player.

In this aspect of the **continuation of sound**, the harp is related to the percussion family of instruments, although it differs in the extreme sensitivity to the touch of the player's fingers, and their movements after playing. This introduces the related aspect of "**accumulated resonance**", as multiple sounds continue to overlay after being played, and creating **combination tones** or new resultant colours. Salzedo embraced this aspect rather than attempting to "muffle" sound; he used superimposition of harmonies as a musical feature, going *with* the instrument rather than *against*. Many 20th century composers such as Paul Hindemith, Luciano Berio, Dennis Eberhard have used this aspect, and their compositions

for harp have been particularly successful. In his multiple works for harp Isang Yun also demonstrates an understanding that complexity in layers creates a tapestry of resonance.

Salzedo was finely attuned to **colour**, where every **nuanced gesture** creates a subtle change in the "affect" of the musical expression. This might be said in some way of all instrumental and vocal performance, but for the harp the gesture is so vital that the tone colours of the sonority created by the gestures can *become the emotional expression*. Salzedo's **extended techniques** are really an extension of this exploration of the gestures which produce sonority and colour.

Salzedo's **influence** has been largely responsible for the enormous increase in works for and including harp in the 20th century. The ability to create colour and to blend well with any instrument has meant the harp is now a mainstream contemporary ensemble member. The willingness of harpists to work with composers, along with a number of composition competitions, has also aided the increase in solo repertoire. However, much is written that still does not take the essential nature of the harp into consideration. Salzedo's extended techniques have been noted and used extensively; but his use of resonance, gestural raising to sustain sound, or the use of pedals to create patterns and colour changes for example, have not been so generally understood. Often the fact that the harp is tuned "diatonically" (i.e. with just 7 pitches in the scale possible at any one time and changes in these pitches made by moving the 7 pedals), has been seen as a limitation rather than a feature that is individual to the harp and can be used as a musical feature to unique effect.

**Much has still to be done** to bring a true understanding of Salzedo's work to composers, so that the harp can reach the potential he envisaged. Even further, **what is the next step in the evolution** of writing for the harp, to extend and develop what Salzedo wrote about more than a hundred years ago?

In following this question, I have experimented with **electro-acoustic harp**. My hope was that this "extension" of the instrument was the next natural progression of the instrument's development; that it would act as a magnifying glass for the harp's different colours and extended techniques, alongside additional expansion of the palette through electronic effects such as sustaining the sound, creating vibrato, pitch shifting, digital delays and so on. Composers who have written new pieces for me for this instrument have in general chosen to focus on a few of these aspects and develop them. The pieces have been exciting and interesting, and there is definitely much room to explore here into the future, with the sounds produced and the musical expression keeping pace with technology.

However, what I discovered was in line with what many other instrumentalists who have explored electro-acoustic options have experienced: the instrument becomes something "other"; rather than bringing us closer to the instrument, it takes us further away. The original subtleties of nuance and sonority are replaced with another kind of sonority, with its own language, befitting a new instrument (more on this aspect below).

It therefore became clear that research looking to extend the "harp" further into the 21st century as an enduring and vital instrument must look towards ways of deepening expression of the existing natural essential elements of the acoustic instrument.

To recapitulate what these elements are:

- A **resonance box with tensile strings** ranging from thick/long to thin/short of differing materials (steel/gut/nylon), which release their potential sounds through direct contact (finger or chosen implement).
- This direct contact is **inherently gestural**, in that the performer must choreograph complex movements with the whole body to be able to coordinate the necessary actions, and to produce a range of variety in the nuanced sound as infinite as the differences in gestural combinations and intentions. The sonoric result is like a soundscape of a dancer's gesture i.e., there is no bow or breath, only movement of the harpist's body.
- The **resultant sounds accumulate** in the soundbox itself and in the surrounding air as the soundbox continues to vibrate; this happens even when individual sounds (strings) are "muffled" through a gesture to arrest the vibration of played strings. Strings that are not muffled will continue to resonate until physically stopped with the hands; resonance is longer for lower notes, gradually becoming shorter for higher notes.
- A **concert ("pedal") harp is tuned diatonically** (ie 7 pitches to a scale), with 7 pedals to change the semi-tone possibilities, with all strings of the same note name changing at the same time. These can be executed in ways to avoid this change sounding, or encouraged to ring through - slowly to create a buzzing sound or rapidly to cause a gliding sound - shifting the notes chromatically while the still is still vibrating.

**"Lever" harps (smaller folk style harps) use a hand adjusted lever** on each string to change one semitone up. This enables a lever harp to have different chromatic settings in different octaves, since each string is separately activated.

**This "diatonic-ality"** is the nature of the harp, and closely relates to the concept of resonance. At any one moment a resonance can be activated that has up to 7 pitches. In a well written piece, even rapidly moving pedal actions (see Sharon Calcraft *Peregrinatio* or Berio *Sequenza II*) use this as a colour shift as the harp's resonance shifts.

The diatonic tuning of the harp and its pedals/levers enables patterns to be set up which allow for playing of complex chromatic figures and passage-work with ease. For example, consecutive arpeggiated figures or chords using the same fingering and hand shapes can achieve pitch changes and dissonances easily: something which would be quite complex to execute on a keyboard. Add to this the ambivalence created by moving pedals (not possible on lever harp) for moving accidentals during playing (as in Berio *Sequenza II*), and we see that the supposed "limitation" of the seven available simultaneous pitches is now an advantage. The concept of this being a limitation is due largely to the idea that the harp should be a kind of keyboard instrument. Possibly the "triple" or "double harp", where all pitches are available as independent strings, and which was in widespread use throughout the Baroque era, encouraged this concept.

**Lever harps** can create their own complex and rich dissonances through using different lever settings in different octaves (see the lever harp settings for Calcraft *Peregrinatio*, Larry Sitsky *Fantasia*, Martin Wesley-Smith *Bonzer Little Things*). Again, these allow for technically

fluent passages which achieve a variety of complex dissonances: for example a simply played parallel scale an octave apart could sound with a combination of 7th and 9ths.

By hearing and embracing harp resonance, a composer can set up a layering of sound, allowing time for sonority to accumulate. Too many notes which fall outside this concept, as in a keyboard style of writing, can in fact cause less resonance, through the act of replacing on or near already vibrating strings, thereby stopping the vibration, hindering the flow or gesturally confusing resonance from the instrument. In general, in composing for the harp "**less is more**". As mentioned, Yun's harp works are complex in terms of many notes, but these are layered masterfully in different registers to enhance and accumulate resonance.

In addition to the above purely musical or technical attributes, the harp has a strong **aesthetic impact** on an audience. The gestures of the harpist in playing are part of this experience. Compositions which are idiomatically written for the instrument using gestures which are natural to the performer will produce a greater sonority and nuanced effect, as well as greater communication with the listener. The harpist spends a great deal of time learning a piece because all the gestures required need to be finely choreographed. This is not for empty visual effect but is the mode of eliciting and controlling every aspect of the sound. Once these gestures are integrated and natural, a piece for harp which is written with this aspect in mind can be experienced by an audience as a fully expressive dramatic creative event, involving music and dance as one connected language. Other elements such as the addition of vocalisations or using other body parts than the arms to create sound (Eberhard *Especialy...*, Mary Doumany *Harp Body Her Body*) augment this natural and timeless expressivity.

The harp has a large resonating body, embraced by the performer. The interior of the instrument is easily accessible through the sound holes at the rear of the "belly" or sound box. Vocalisations can be made here simultaneously with playing (Eberhard *Especialy*, Tim Geller *Breath Dance*, Calcraft *Peregrinatio*). In this way, sounds of the interior and exterior can blend in a way unlike any other instrument. Percussive movements create sound on the soundboard and sound box (Doumany *Harp Body Her Body*), also in combination with the use of the strings; strings can be struck percussively to resonate like a gong, or plucked with finger tips or nails; strings (especially lower register strings) can be bowed, various harmonics created (both plucked or bowed), or pitch shifted with a moveable metallic fret (fluidic sounds): it is as though the whole instrument is awaiting awakening through touch of all kinds. Given the size and aesthetic construction of the harp, the process of this touch is **necessarily theatrical and dance-like**.

Composers writing for the harp are advised to **listen and watch closely**, especially to the surrounding resonances, **then experiment**. Harpists working with composers need conversely to understand that each composer has their own voice: respecting this and offering ways of using the instrument that fit this voice idiomatically. From the resultant synergy often something new emerges. A composer may write something that is difficult instrumentally, but instead of dismissing this as being un-idiomatic and creating a barrier for the composer, the harpist can work through and find solutions in ways which extend harp technique. This encourages an ever-widening field of expression in writing for the harp, and less stereotyped appreciation of what is and could be the full voice of the instrument. For

example, the difficulty of the extreme and rapid colour changes in Berio *Sequenza II*, or Calcraft's use of rapid harmonic shifts requiring extreme pedal movements might shock initially, but are actually intentionally pushing the boundaries of aspects of the harp that are idiomatic.

As mentioned, Salzedo was finely attuned to colour. **Written poetic descriptions** throughout his music acknowledge the dramatic and gestural nature of the harp. A mechanical execution of the musical notes is not all that is required: every nuanced gesture creates a subtle change in the "affect" of the musical expression. An understanding of this can only be transmitted to the performer through a description of the feeling, which can be then translated into the kind of gesture, much as in dance. This might be said in some way of all instrumental and vocal performance, but for the harp the gesture is integral to the sonority and emotional expression of the music. This can so often be ignored by the instrumentalist preoccupied with the strings and fingers, and written markings can prompt and inspire. Composers also need an understanding of these subtle colours, to utilise the full and essential expressiveness of the instrument.

Salzedo's **extended techniques** (primarily found in the *Modern Study of the Harp*, also in the *Method for the Harp*) have inspired a century of exploration by harpists and composers, resulting in a truly astonishing cornucopia of colours, percussive and sonoric effects, and other publications and research have documented these. Focus now needs to be on integrating these extended techniques into the musical language by ensuring a level of **nuance and subtlety within the various effects**. The performer needs to master the extended technique to be fully in control of a range of nuances, so that composers can use these in expressive and musical ways beyond the purely "percussive" or block tonal colour. This process is described further below in the process of working on Calcraft's *Peregrinatio*.

**Phoenix Angel Project** : a poetic-theatrical combination of **music, lighting and choreography**, using the breadth, depth, subtlety and power of the harp to mystically connect with the human journey between earth and the metaphysical.

When I first applied to Judith Neilson for funds for this project, it was a cloudy feeling, a knowledge that here was an opportunity to stretch and develop the harp - a life-long endeavour for me - but as a journey, the outcome of which would become clear during the process. The initial proposal was purely for the electro-acoustic harp because this was an exploration which I felt had been cut short when I left my university position, where I started what I called the *Angel Machine* project with a program of newly commissioned works for electro-acoustic harp in 2004.

The project title, *Phoenix Angel*, is a reference to this past project rising from the ashes; to the patronage of Judith Neilson's Phoenix foundation; and the angelic element, the esoteric meaning and mythical symbolism of the harp through human history.

My *Alice in Antarctica* program (electro-acoustic harp, spoken and sung voice and film) had shown me that it was possible to create a powerful and enthralling multi-media performance with solo harp. My overall aim with the *Phoenix Angel* Project was to create

another such "show" or multi-artform expression. This ties in strongly with historical origins of the harp as accompaniment for recited and sung sagas. As in *Alice in Antarctica*, I could not envisage this beforehand: I knew it needed to emerge naturally from the process of exploration, leaving myself open to something new, and the impulses set up from the environment. Rather than the external inspiration of my grandfather's story and diaries, and the environment of Antarctic adventure, in this case it would be the environment I set up through my inner connections and choices.

I started the journey very consciously from three standpoints: firstly a re-connection and exploration of the two major seminal works of Carlos Salzedo, the *Five Preludes for Harp Alone* and the *Five Poetical Studies for Harp Alone*; secondly, by connecting with two composers: **Sharon Calcraft**, who I knew had an understanding for the voice of the harp as well as an esoteric understanding of the journey, and **Mary Doumany**, as harpist-composer and with an understanding of the gestural and physical nature of the harp.

Thirdly, I set about reviving some of the highlights of the original *Angel Machine*. This resulted in the *Phoenix Angel Machine* performance at the Dangrove facility in 2019. This program documented, with the wonderful videography of the Phoenix foundation, the way I had envisaged the electro-acoustic harp as extending the colours and effects of the harp. The process also enabled me to re-assess more deeply the use of the electro-acoustic harp in light of my current thoughts and feelings about the harp and music.

It became very clear to me that the electro-acoustic element was moving in a direction further away from the things I felt were essential and vibrant about the harp; that further extensions in the electro-acoustic direction, while interesting and exciting in themselves, lead to more computerised or electronic fields that create basically another instrument, and therefore were not what I could best contribute to the future of the harp. I discussed with other musicians who have worked extensively in the electro-acoustic field (including Daniel Pratt, percussionist, Martin Wesley-Smith, composer), who also said the same thing: in the process of delving into that rabbit hole of magnification and exaggeration of the acoustic sound through electronics, one actually finds that one has distanced the instrument from itself. There is nothing inherently wrong with this, but for an instrumentalist who is deeply connected with their instrument's sonority and voice, it can be disenchanting as a direction.

The very things that I was originally wishing to explore and share about the harp - a magnification of the infinite range of subtle nuances of colour that is 'the harp' for me, and which I am highly attuned to - are actually subverted in the electro-acoustic instrument and replaced by other electronic subtleties and effects. In themselves interesting and exciting, but something other.

It also has felt as though the times (starting with the severe bushfire events of 2019, the ongoing climate crisis, and Covid-19 introspection) demanded a deepening of connection with the voice of the earth, for healing rather than distancing; that this was something that the voice of the harp was strongly destined for and aligned with. Therefore, I turned away from the idea of the whole project being based on electro-acoustic harp, and started with a clean slate. Ultimately, two pieces in the *Phoenix Angel* program use some form of electronics with the acoustic harp, which I have described below, and the third uses the

electro-acoustic - thus integrating various sonorities and possibilities in a more fluid and rich way.

As groundwork, besides discussions with Calcraft and Doumany, I worked on preparing the Salzedo works (*Five Preludes* and *Five Studies*) for performance and recording, as well as spending time on my own improvisation to extend and explore colour and resonance. Covid-19 pandemic closures prevented my live performances and lecture presentation of the Salzedo works, but I was able to prepare and video record a series of study lessons in 2020, which I put onto my video teaching school site in 2021: *AGOnlineHarpResource* (<https://ag-online-harp-resource.teachable.com/p/salzedo-five-preludes-for-harp-alone>; <https://ag-online-harp-resource.teachable.com/p/salzedo-five-studies-for-harp-alone>). In this research I was also inspired by the doctoral dissertation of Dr Melina van Leeuwen: *Carlos Salzedo's New Harpism: Principles of Idiomatic Harp Composition, Performance and Design* (2020, University of Melbourne). I also shared the findings of this research, which Melina was discussing with me as she worked, with Calcraft as inspiration for her composition.

The concept for the culminating performance of the project emerged in my mind as being a 3-fold expression of "Harp essence, Earth essence, Heavenly essence", and would therefore comprise 3 larger scale works, reflecting these explorations in varying combinations. These related to my desire to express what I felt was the voice of the harp, its physical attributes, its historical/mystical nature and its powerful theatrical presence. The pieces needed to come together as one overarching performance, extend the language in some way and be substantial in length.

Initial discussions with **Mary Doumany** for the project were around writing a piece that used the gestural nature of the harp and addressing the lack of a corresponding body of theatrical works in the repertoire. We discussed the early Greek culture where musicians (including harpists) are seen moving, and the relationship of symbolic or sacred dance and the harp as a primal form of expression. At the forefront were the ancient origins of music and dance as a sacred space (especially notable in ancient Indian culture), and that we needed to find ways to assert that in performance again. The finished work fits perfectly as the opening work of the program in setting this mood, dramatically and intentionally.

The piece developed from the idea of using less notes and more dance/play, with a highlighting of the relationship between instrument and player in symbiosis. Hence the use of other body parts to create sound, from different angles. On one level this creates an earthy, physical or sensual expression, almost as though the performer is exploring the body of the harp, with the musical sound as an aural outcome; on another level the gestures can be interpreted as ritualistic, organised and leading to inner mystical levels as inner alchemy, through symbolic musical dance. There are a series of "Stations" which progress in a circular way around the harp and represent different stages of the inner and outer journey. Use of the loop pedal in the 3rd movement (also hinted at the end of the 4th movement) allows for resonance to build in layers, and for the harp to play with itself while the performer adds layers of improvisation.

The use of repeated series of low register notes (outer movements) and slow arpeggiated chords (4th movement) allows time for the harp resonance to be heard, with various

gestural and extended techniques acting as embellishments around this resonant core. The faster moving 7/8 meter dance patterns in the 4th movement use repeated patterns with continuous subtle variations, especially realised through pedal changes. In this movement the "witchy" tritone (Eb/A) as well as the vocalisations give the effect of spell casting or invocation. Extended techniques (sliding on the soundboard with the palm or with the foot, whistle effects with fingernail, arm waves, heel of the foot gong sound etc) are like signals to awaken the whole body of the instrument, using the whole of the performer's body. Some of these extended techniques are new and therefore required new notation, devised by Doumany for this piece.

I used a good quality microphone (Sennheiser) in the sound hole of the harp to connect with the looper, and a belt-pack microphone (Røde) to capture the vocalisations. The process of integrating and projecting naturally the extra performance/theatrical movements as well as playing from the column (in reverse to the usual position) was lengthy. The overall result was a greater connection with the instrument that was profound and affected other aspects of my playing.

The *Phoenix Angel* program centres around the major work by **Calcraft**. Initially we had some discussion regarding using other instruments and/or a dancer to enhance the concept of larger-scale work. However, I was keen to see if there was a way to keep the focus clearly on the harp - both with a view to the viability of future performances, and also to push the boundaries of what would be possible in sustaining musical and sonoric interest in a longer work for solo harp. Existing larger scale works for harp are very few, and generally comprised of smaller movements or series of pieces. Once Calcraft made the decision to open up the second half of the work using pre-recorded and electronically modified harp sound (fitting her previous works for harp and suiting perfectly the transition from acoustic to electronic in the shape of the whole performance) things fell into place naturally.

From the start Calcraft was interested in using special lighting effects for the piece, and had particular and vivid colours in mind (inspired by El Greco and various staged musical dance performances). With the focus narrowing to solo harp, the lighting needed to become a theatrical element in itself, intimating the gestures of dance and the journey in an abstract way. Hence the invitation to Sam Whiteside to create a lighting design for the piece, and to extend this to an overarching design for the whole program.

The initial stages of work together on the piece comprised many written notes, playing these and then discarding to find other solutions. There was a joint decision to extend the instrument into a kind of "über" harp, using a bow and a metallic fret. Berio talks about only using the performer's hands on principle in all his works, without added implements, and this illustrates his respect for instruments as the outcome of their own natural evolution. The exclusive use of the bow and the metallic fret in this instance felt integrated with this concept of the essence of the harp, given these are extensions used in related string instruments of all cultures, with their natural string resonances and colours.

Calcraft's interest in and search for a development of nuance and subtlety for existing extended harp techniques initiated the real focus of our work together. This worked on an understanding of *colour variations* being the special means of expression for the instrument,



and that a deepening of this palette, a kind of inwards progression, was a truly new, vital direction. It resulted in the creation of new notation to enable easy visual reading of the extended techniques and their modulations. This was particularly sought for the *fluidic sounds* (using the metallic fret), bowing (eliciting simultaneous fundamental and harmonics, swishing, *col legno*), gushing chords, and for *aeolian sounds* (use of the palm and fingers rubbed in various ways on the strings). The development of the sounds came through both working together in an experimental way, and also through my own improvisations, where a concept of my own regarding sonorities developed into an improvisation which I could play for Calcraft, who then was able to take aspects that appealed to her, using her own language.

The use of pedals also became freed and transformed during the process. Calcraft's harmonic language is chromatic in ways which often require the use of more than the seven simultaneously available diatonic pitches of the pedal harp, leading to conundrums in achieving the right sound for her ears. However, once I let her know to write as she heard, and then just moved pedals so that there was no concern for the sounding of pitch shifting, and once I embraced this rapid pedal movement as creating multiple overlaying resonances, accepted the technical physicality of this as dance, the piece came quickly into its own sound. This reflects and extends on some of the pedal chromaticism and random pedal colourations of Berio's works for harp. It extends the colour of the harp in an idiomatic way which is not obvious to the listener, but is directly related to the nature of the harp as a pedalled instrument which should not be seen as a limitation, but a creative opportunity.

The addition of the lever harp, with levers set in a non-diatonic way (different accidentals in different octaves) established a further dimension. This enabled close range chromaticism between the two instruments (notes in close range at different accidentals), and passages on the lever harp could use wide range chromaticism (intervals of 7th, 9th etc), creating a new and unique resultant resonance. In fact, the use of the lever harp was initially thought of as something more gestural and metaphysical - that I would turn to it slightly shadowed behind the pedal harp to suggest a more dreamlike surreal quality. The effect of playing the two together was arrived at by chance during the work session, and possibilities for sound experiments naturally followed on.

Sounds in the piece often came from gestural inspirations in this way. The opening bowing section became more musically varied when the bow was seen as the oar in the coracle image for the piece (*Peregrinatio* refers to the pilgrims who journeyed where the coracle would take them). The passages of *fluidic sounds* were further deepened with inspiration from the sitar playing of Anoushka Shankar, using the right hand alone to manipulate the metallic fret (usually played using two hands - one to hold the fret and one to pluck the string) with the left hand free to create the supporting resonance in the bass; or the wild sliding movements of the *fluidic sounds* (just before the entry of the electronic track), inspired by Indian dance. Poetic concepts also created inspiration, with the image of the freed coracle from its moorings led to a freeing of the gestures of various glissandi, and the image of the original breath on the waters led to the use of breath sounds through the sound hole.

Other typical harpistic techniques were extended in new ways. For example, the gushing chord or *aeolian chord* developed and used by Salzedo has been refined, using an advanced technical skill to place and articulate the starting and ending notes of the chord clearly. Although in effect *glissandi* - sliding of the fingers across multiple strings - these are executed so rapidly as to create the sound of a chord. The resultant passage creates the image of flamenco dancing: a strong connected sound (*duende*) from the extended physical contact with the groups of strings, combined with the flamboyance of the wrist action required to play accurately and with facility.

The use of resonance overlay without muffling, and the halo of resonance created through rapid muffling was also consciously extended. Most of the work is written to not require muffling (arresting the vibration of the strings with the palm of the hand), allowing the shifting of the chromatic sounds and the changing nuanced colours to mix, as inherent aspect of the expression. Some chords are rapidly individually muffled (fingers replaced on only the notes played), allowing for the ear to be aware of the remaining and continuing vibrations of sound in the air as the sounding box continues to sympathetically vibrate.

The electronic track is comprised solely of modified recorded acoustic harp made during our collaborative meetings, using Michael Norris' "SoundMagic Spectral" plugins. This creates a kind of orchestral backing in surround sound for the solo harp, which responds in an improvised way using pre-determined extended effects, gestures and pitch groups. The entrance of the track at about halfway, creates an increase in energy and volume to arrive at a dramatic high point, powerfully augmenting the impact of the instrument.

Both the Doumany and Calcraft works serendipitously became works about "journey". Throughout the process I knew there needed to be a third work, but was not sure what this would be. Originally I thought it could be an improvisation, as a way to start the program through exploring the harp resonance to set the listening and mystical space. When the Doumany work clearly served this function so aptly, I knew it would need to involve another composition.

My invitation to **Jon Drummond** to write the third piece originated in Nena Beretin's (of the Phoenix foundation) suggestion I perform with a laser artist at Dangrove alongside part of another project. Although the performance which was intended for 2020 did not eventuate due to Covid-19, and the laser artist involved had not responded to my contact, I had by then already approached Drummond to write something that would incorporate interactive elements with visual effects, and decided to carry this forward into the Phoenix Angel event. Once I saw the new Phoenix performance space it was clear that the blue electro-acoustic harp would fit perfectly in the upper balcony space, creating another theatrical and metaphysical layer to the performance, the concept of journey and the idea of the electro-acoustic sounds rising beyond the earthly acoustic harp.

Through the connection with Sam Whiteside, an overarching concept of lighting design for the whole program developed naturally, and the colours and beams of his design style and material fit in a very natural way with the musical intent and expression of all three works.

Calcraft's original inspiration for her piece was around "Jacob's ladder" - the ladder Jacob takes in his dream to wrestle with the angel. So the idea of the *Peregrinatio* pilgrimage now leading upwards to the final piece seemed appropriate. I asked Drummond if he could create something "joyful" - not an easy ask during Covid and other personal difficulties. His use of the DNA helix sequencing of the Covid virus was truly inspired - as a representation without prejudice of the inner energy of all life, a microscope taken in effect both symbolically, mathematically, and musically as the sounds of the harp are magnified and modified.

Drummond's piece sits as the last component in the journey; as the first two pieces centre around the resonances, subtleties, and drama of the acoustic harp, the final element acts as a kind of sublimation, both in space and in sonority. Drummond has also used Michael Norris' "SoundMagic Spectral" plugins, but in this case to manipulate and modify the sound in real time, received from the pick-ups on each of the strings of the electro-acoustic harp, and has thus found a new sonority for the harp. The continuous flow of resonating notes, generated compositionally from the DNA sequence of the Covid-19 virus, allow the natural resonance of the harp to be expressed, while the magnifying glass on the signal of the harp strings and sound body vibrations are put through a prism projecting myriad colours. In turn this is reflected in the lighting effects created by Whiteside.

Harpistically, the composer has allowed freedom for the performer: the work moves from the middle range of the harp gradually expanding to the full low and high registers. This involves rapid jumps of register not physically possible in continuous quavers at tempo, so I have been able to create rhythmic patterns that follow the harpistic hand placing patterns. The execution of the work is like a duet, with the harpist playing the impetus notes, and the composer creating the sonority and colour world, both through preparation of the software and in real time manipulation.

My hope is that the *Phoenix Angel* performance will be the inspiration and template for many other such harp sagas in the future: heralding a new age for the harp to express creatively as a powerful voice through its full and sonoric colour range, unique gestural aesthetic attributes, and mythological and mystical connotations, bringing the ancient and modern together.

*Alice Giles, March 2022*