

Pixelating the River

Kreutzer Quartet

Anne Boyd | *String Quartet No.2, 'Play on the Water'* (1973)

Thomas Metcalf | *Pixelating the River* (2020)

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5:00PM

Online



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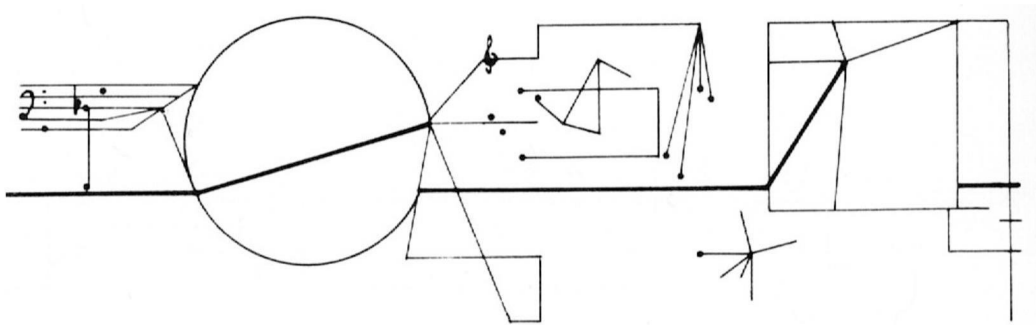
Krisztina Lugosi

About this Project

The goal of this project was to investigate the impact of graphical stimuli in new music on contemporary audiences. These stimuli can take many forms, ranging from the Medieval practice of *Augenmusik* (eye-music), where the music is arranged to create shapes and symbols, to fully graphic scores, e.g. Cornelius Cardew's *Treatise* (1963-1967), where staff notation is either removed or hybridised to create a performative stimulus for the performer.



Baude Cordier *Belle, Bonne, Sage* (c. 14th century): an example of *Augenmusik* where the music is laid out in the shape of a heart to reinforce the content of the song.



An excerpt from Cornelius Cardew's *Treatise*: an example of a graphic score where the music will be guided by a performers interpretation of the symbols, rather than traditional music notation.

My particular interest lies in what is known as 'ekphrasis'. This term, deriving from the ancient greek for 'description', is where one art work is represented in another using a different medium. A well-known example is Keats' *Ode on Grecian Urn* (1819) – the ekphrasis of decorative pottery through poetry. There are many examples of musical ekphrasis, a subject that has been written on extensively by scholars including Siglind Bruhn and Lawrence Krarmer, which 'transmedialise' texts or visual imagery into music. Some examples that Bruhn provides include Schoenberg's *Verklärte Nacht* (1899) and John McCabe's *The Chagall Windows* (1974).

I argue that ekphrasis can go further, rather than just emulating the perceived characteristics of texts or paintings, it can provide a means with which to represent that specific artwork's fundamental layout (lines, shapes, geometry) - thus making the ekphrasis of that source stronger.

If this approach stands true for works of visual art, then I suggest that the same process of transmedialisation can be applied to *any* visual representation - regardless of whether it is an 'artwork' or not, since the process of analysing/critiquing the image remains the same from the perspective of the composer. It is through this idea of 'decentralising' the artwork that musical metaphors can be constructed more holistically, through the construction of musical processes that relate *directly* to the source image that is being transmedialised. This is the crux of my notion of a *graphical ekphrasis*. An example can be seen in Luigi Dallapiccola's *Sicut Umbra* (1970), where the final movement incorporates constellations into the score, both in generating musical material but also as a visual signifier. These act as ekphrastic supplements to the sung text, which includes lines such as 'your death rains from a star'.



The vibraphone part of bar 151 of *Sicut Umbra*: an example of graphical ekphrasis where the musical metaphor is signified through the incorporation of constellation shapes in the construction of the material (in this case, using Ursa Major).

To further explore this phenomenon, two works will be performed that employ very differing approaches to musical and graphical ekphrasis - but which, nonetheless, use similar notions of 'internal' and 'external' process to articulate their ekphrastic goals. Anne Boyd's *String Quartet No. 2 'Play on the Water'* (1973) uses a Paul Klee pencil drawing as its ekphrastic subject, whereas my own work, *Pixelating the River* (2020), uses pixelated images of the River Thames through which to construct its narrative and musical materials. Both explore a musical exploration of water in greatly contrasting ways. More details on these works can be found later in this programme.

It is hoped that through the interaction and communication of graphical and non-graphical musical materials, stimuli, and metaphor, that diverse audiences can find a new sense of engagement with contemporary classical music. Please consider filling in this survey to help us reflect on this project, and evaluate its goals and achievements:

<https://forms.gle/ixrVQWLjhsXPf8v8>

String Quartet No. 2, 'Play on the Water'

"The writing of a string quartet seems to me to accompany a period in my life of intense personal and musical crisis, upheaval and change. Such were the circumstances which immediately preceded the composition of my first work for this medium, String Quartet No. 1 "Tu dai oan" (The Fourth Generation) which is a set of variations on a Vietnamese folk melody. Not surprisingly, perhaps, in searching for an idea for the second quartet I found myself drawn to the work of Paul Klee, wishing, as he wished, 'to be as though new born, knowing nothing about Europe, nothing, knowing no pictures (or music or poems), entirely without impulses, almost in an original state.' It was, however, a picture, or rather a small reproduction of a line drawing by Klee – "Play on the Water" (1931) – which suggested some of the first ideas for the composition of the quartet.

Like Klee, I determined in this piece to limit my musical material to the simplest possible of original forms. Thus in the quartet there is a disciplined use of pentatonic scales, rhythmic ostinato and two-, three-, and four-note melodic fragments which are repeated over and over again in the manner of an incantation. This material is built into juxtaposed blocks of sound, the structural principle being something like the placement of bricks in building a wall.

The work consists of five movements which are arranged symmetrically around the third and central movement – itself made up of symmetrical blocks of material. The first and fifth linear movements are closely related to each other. Both move towards and away from a centrally placed musical spiral in which each player has four fragments of material which may be played in any order, at any dynamic, and last for any duration. These movements can be related to the harsh and dramatic landscapes such as those which are characteristic of the desert regions of central Australia. The second and fourth movements are lighter and more playful in character, each being based on ideas from ring games played by young children and the repetitive patterns of birdsong. The third movement is extremely static and could perhaps fancifully be compared with reflections upon the surface of a very calm pool of water.

Like most of my recent works this music is intended more as ritual than as expression."

Anne Boyd

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The Klee quote in this work's programme note is a useful way of expressing the goals of graphical ekphrasis. The notion of 'knowing nothing' of imagery, painting, or poetry fits with the notion of a more rigid representation of the ekphrastic source; using its specific qualities of shape, line etc., rather than a more generic notion of what it depicts, e.g. musical tropes about water which appear in ekphrastic responses to it (such as 'rocking waves').

As part of this project, I was lucky enough to interview Anne Boyd for TORCH's *In Conversation With* series. In this, I asked about the relationship of the Klee work to Boyd's quartet, and it seems that Klee's larger philosophy in texts such as the *Pedagogical Sketchbook* (1925) was instrumental in developing her compositional voice:

You can use [the *Pedagogical Sketchbook*] as a compositional tract – if you relate a lot of what he says to notation and in a deep level to thinking about musical form and structure, it's very rich.

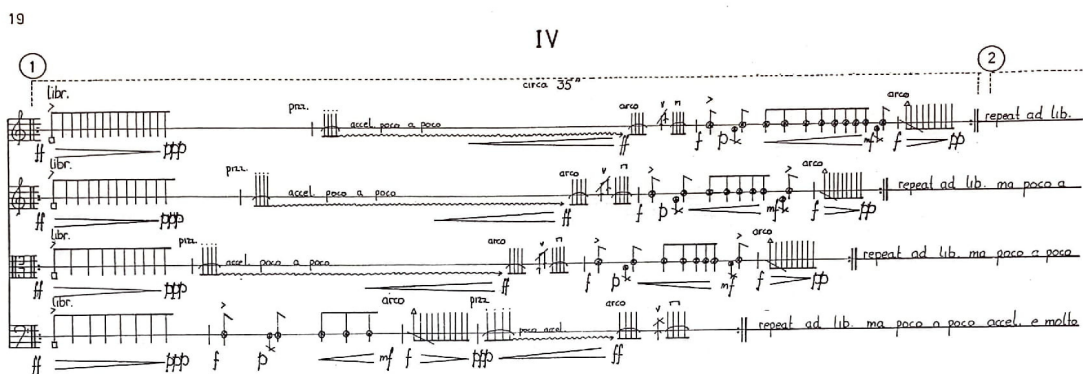
The impact of Klee is tangible both in philosophical terms, but also in creating an ekphrasis of his work *Play on the Water*. Boyd alludes to this, in its effect on both notation and structure.

When you look at the way that is structured and look at the score pages, there are very strong links. Even in the structural shapes of the outer movements, they move into a central spiral just like in that [drawing] and then move out on the other side.

This is clearly heard in Boyd's quartet, when you hear the variety of strictly controlled glissando sounds (sliding from one pitch to another) that represent the waving lines of Klee's drawing, as well as the percussive knocking sounds that characterise the fourth movement, which represent the circular 'interruptions' in the image. This is illustrated in the score as well.



Anne Boyd, *String Quartet No. 2*, bars 21-25: a passage showing the influence of the wavering lines in Paul Klee's *Play on the Water* and how this guides the musical design.



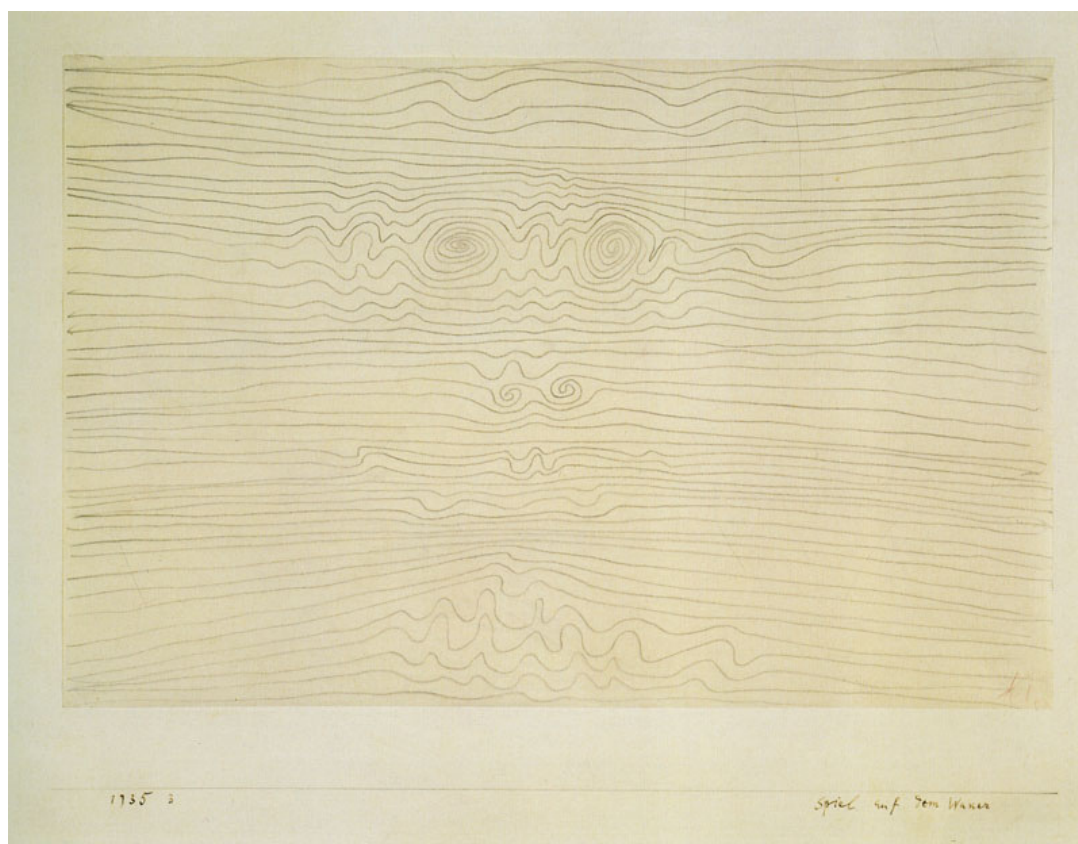
Anne Boyd, *String Quartet No. 2*, opening of movement IV: a contrasting musical texture arising from a contrasting visual texture in Klee's *Play on the Water*.

As alluded to in the published programme note, this work also has characteristic of ritual, and meditation, that creates a kind of musical narrative - a way comprehend the work. Whilst Boyd does offer some other interpretations of the movements, e.g. dramatic Australian landscapes, children's games, the overall metaphor of the piece is one which draws from the visual representation of the Klee. Boyd elaborated further in our interview:

I never thought in a linear way, I always thought in a cyclical way; moving to a central point. Of course, that was also a musical metaphor for an exploration of self, and of consciousness ... in stripping away preconceptions of things that you've learnt... so you are just left with essential shapes, essential form, essential sound. That is at the heart of this work.

This demonstrates one aspect of composing in a so-called 'graphic' manner. The inclusion of musical processes aimed at rendering specific aspects of the visual source can be considered 'internal'; they emerge as a result of the interaction between the composer and the graphic. These internal processes, however, can craft musical metaphor that signifies the composer's self-constructed narrative of the image: an 'external' - this affects how we hear, and what we hear in the music. Boyd has effectively transmedialised the Klee drawing through her construction of musical materials that relate specifically to the linear and circular aspects of the artwork - all through the musical metaphor of ritual and meditation.

The full interview with Anne Boyd can be viewed here: https://www.youtube.com/watch?v=4_QGSAfWCY8



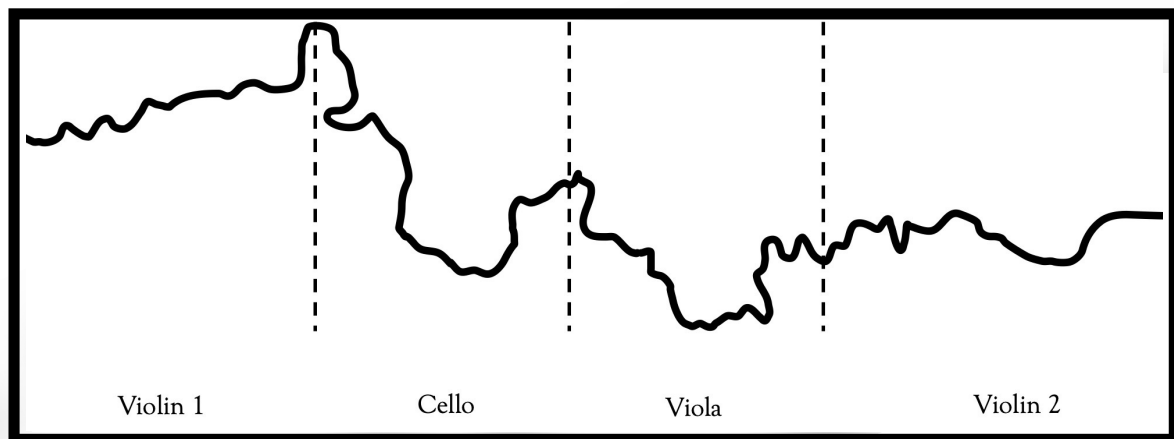
Paul Klee, *Play on the Water* (1935)

Pixelating the River

"This work is a continuation of my research concerning the process of pixelation in music. It explores how graphical inputs can organise pitch using two parameters: retained pitches (what remains of set derived from the original image) and regenerated pitches (where the new image is overlaid into a pitch/time space). The piece uses graphical insertions in the score, using portions of the river map to create glissandi, to be freely interpreted by the performer over the allotted time.

The music moves through the river, which is divided into four harmonic sections. Within each quarter, a process of pixelation via magnification occurs, which generates new derivations of the initial set of pitches. The initial row could be thought of as the 'surface' of the river, with each subsequent magnification going 'deeper', and thus less clear. These harmonic layers often exist simultaneously, and the 'retained' pitches (what is left of the original tone row after magnification) create a tension between these two representations on a local level. This tension can be manifested as a critique of natural and technological processes, forging an eco-critical interpretation of the work.

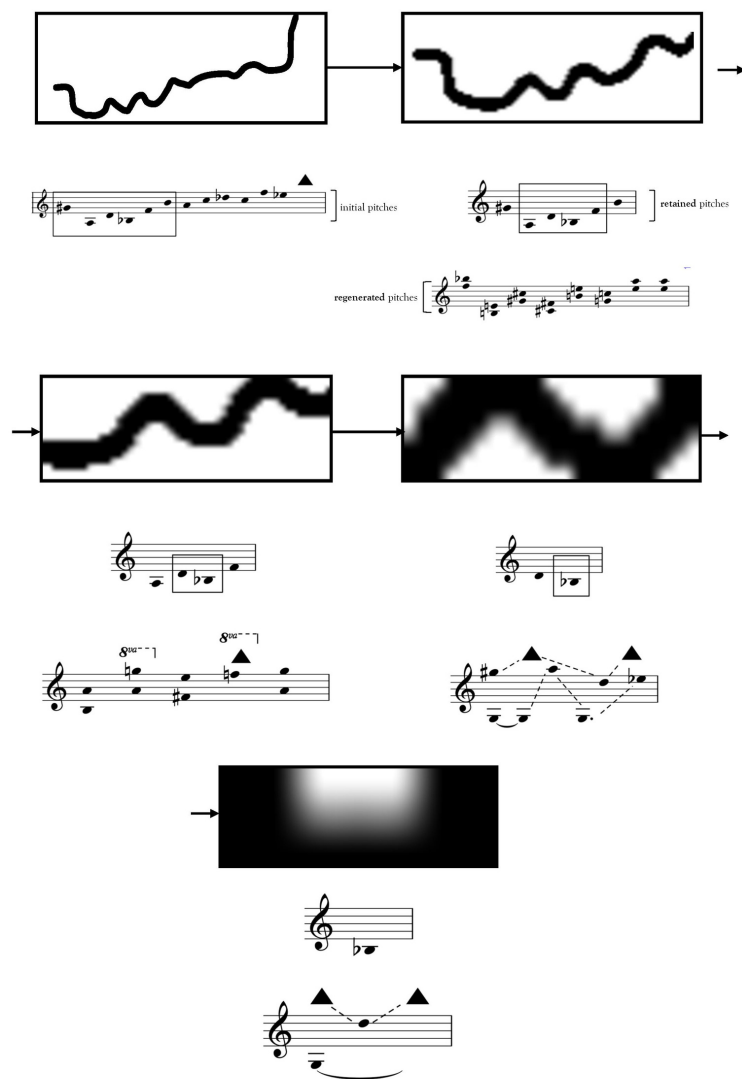
The process of composition was layered. From June to August, I wrote solo pieces for each of the quartet instruments, entitled *Vignettes of a Pixelated River*, which derive their material from each quarter of the river:



Complexes of material are shared across *Vignettes*, and these are used in the full quartet, informing textures and characterisation of instruments, e.g. the cello may have a more dominant role in 'quarter 2' material. The quartet is played continuously, with no breaks in the structure. Whilst the graphical insertions act as transitions between different harmonic sections, it should not be thought of as different 'movements'; a river exists and flows in a unidirectional unbroken motion."

Thomas Metcalf
2021

The river graphic is present in two ways, again articulating the 'internal'/'external' tension in graphically ekphrastic works. The method of musical generation mentioned above comprises two processes. The first is to take a section of the river, and put it into a 'pitch/time' space which will yield a set of pitches. The river image is then pixelated through magnifying it (which reveal its pixels), and the same process is repeated - these are **regenerated** pitches. Crucially, however, when 'zooming in' on the section of the river, part of the original set is **retained**, but reduced (by virtue of 'cropping' the original image through magnification). An example of this for the first section of the piece is shown below:



A demonstration of how pixelation can generate interconnected musical material, taken from the first quarter of Thomas Metcalf's *Pixelating the River* (2020)

As can be seen, this results in a loss of musical 'data' which parallels the loss of representation in the river graphic. I have related this to both the 'river' metaphor and the 'pixelation' metaphor by suggesting that the increased magnification is analogous to both going deeper within a river, and something becoming more pixelated and therefore losing clarity of representation. The use of a holistic harmonic metaphor helps to foreground the communication of the work over time - instilling a sense of direction, e.g. zooming in/out.

The communication of graphical influence within this work is highlighted in the four 'graphic solos' of the quartet instruments. Here, the very graphic that has been generating harmonic fields (amongst other things) is thrust into the foreground - played by one of the instruments. It marks central moments within the work that articulate the tension between 'types' of playing. In these sections the music switches from being rigidly 'in-time', rhythmic, and precise, to being almost rhythmless and in free-time - with the graphic providing the main musical material with less mediation from myself, the composer. It is emblematic of the extremes that graphical composition may take, as alluded at the start of this programme, and the use of switching between these extremes can both help to communicate graphical aspects of the work, but also create a narrative that is supported through the musical processes throughout the entire work - in this case the tension between technological and natural forces. It is the communication of the 'external' (the unaltered graphical source) through the 'internal' of the composer's musical process.

c. 45"

vib. ord
→ bow pressure ord.
all lines are interpreted as glissandi, as if flowing through the river; change bow ad lib.
solo

64

ff molto espress. e drammatico
colla parte

colla parte

colla parte

colla parte

p

c. 45"

* molto s.p.
ad lib., colla parte
ppp sempre

* molto s.p.
ad lib., colla parte
ppp sempre

* molto s.p.
ad lib., colla parte
ppp sempre

all lines are freely interpreted as glissandi, as if flowing through the river; change bow ad lib.

ff sub., unstable

p sub.

f *p* *ff* sub. *pp*

[at a comfortable speed; repeat pitches in any order]

Thomas Metcalf, *Pixelating the River* (2020) bars 64 & 140: two graphic solos for violin (above) and cello (below).

The compositional process of this work also explores 'internal/external tensions. Before writing the quartet, I composed four pieces, one for each of the quartet instruments: *Vignettes of a Pixelated River* (2020). These were short pieces (four minutes each) which derived their material from a particular quarter of the river (this is seen in the above programme note) which was subjected to similar processes of pixelation seen in *Pixelating the River*, as well as sharing the same 'graphic solo' material. At points in *Pixelating the River*, material is taken from one of the *Vignettes* and inserted into the score - acting as an external presence within material that is exploring the same graphical space in a fuller texture which utilises multiple harmonic spaces (achieved through the **regenerated/retained** system). This is a process that, admittedly, is more to do with my own personal creative process - but it is nonetheless of importance to the presentation and communication of material, when considering the construction of narratives, and how the music 'reacts' (or not) to external processes.

Vignettes of a Pixelated River No. 1 was recorded by Peter Shepherd-Skærvæd as part of his *At The Desk* recording series, available here:

https://www.youtube.com/watch?v=mMnoEFrjHhE&feature=emb_imp_woyt

The image displays three excerpts from a musical score, illustrating the reuse of material from *Vignettes of a Pixelated River* No. 1 in *Pixelating the River*.

Excerpt 1 (Top): A single staff starting at measure 52. It features a melodic line with a 'sul pont.' (sul ponticello) instruction and a 'pizz.' (pizzicato) instruction. The dynamics range from *p* (piano) to *mp* (mezzo-piano) and *pp* (pianissimo). A '10' is written below the staff. A 'arco ord.' (arco ordinario) instruction is present above the staff. The excerpt ends with a series of notes marked with a triangle.

Excerpt 2 (Middle): A four-staff excerpt starting at measure 79. It shows the reuse of the melodic material from the first excerpt in the second staff, marked with 'sul pont.' and '10'. The dynamics are *pp*, *mp*, and *pp*. The other staves show accompaniment with various dynamics and articulations.

Excerpt 3 (Bottom): A four-staff excerpt starting at measure 362. It shows the reuse of the melodic material from the first excerpt in the second staff, marked with 'sul pont.' and '10'. The dynamics are *p*, *mp*, and *pp*. The other staves show accompaniment with various dynamics and articulations. A 'BB' (Basso Continuo) instruction is present above the first staff. A 'non vib.' (non vibrato) instruction is present above the first staff. A '[2+2+3]' instruction is present above the first staff.

An example of how material from b. 52 of *Vignettes of a Pixelated River* No. 1 is used in bars 80 & 362-363 of *Pixelating the River*.

Biographies

Anne Boyd

Anne Boyd (b. 1946) is one of Australia's most celebrated composers and educators. Her formal training began at the University of Sydney, where she worked with Peter Sculthorpe (1929-2014), who became a highly influential figure both musically, and personally. Having completed her DPhil at the University of York in 1972 on a Commonwealth Scholarship, Boyd took up teaching posts in Sussex and Hong Kong, before returning to Sydney as Professor of Music – the first Australian, and first woman to hold this position. Her music has been performed worldwide, and draws on a synthesis of East-Asian and Western elements with a clear focus on timbre and texture, invoking ideas of meditation, nature, and ritual. Anne's new opera, *Olive Pink*, will premiere in Australia later in 2021.

Thomas Metcalf

Thomas Metcalf (b. 1996) is a composer and DPhil candidate in Music at Oxford University (Worcester College), where he is researching the transformation of graphical spaces into determinately-notated music – focusing on a range of composers in the 20th and 21st centuries. His research has been recognised in the UK and internationally, appearing in peer-reviewed journals as well as diverse conference settings in Europe. Thomas' works have been performed by a variety of ensembles, such as the ANIMA Collective, BBC Singers, Christ Church Cathedral Choir, GBSR Duo, and Oxford Philharmonic. His international profile is emerging, with performances in Amsterdam and Mexico in 2021, alongside a generous grant awarded by *i-Portunus* (Goethe Institut, Brussels) to write a new work for the Lonelinoise Collective, planned for the *International Chamber Music Festival Schiermonnikoog* in October 2021. More info available at www.thomasmkmetcalf.com.



Kreutzer Quartet

Peter Sheppard Skærved | Violin

Mihailo Trandafilovski | Violin

Clifton Harrison | Viola

Neil Heyde | Cello

"The Kreutzer Quartet is acclaimed for its adventurous performances and recordings of works from our time and from the great quartet literature. Their fascination with musical exploration has resulted in cyclic performances and recordings of works ranging from Anton Reicha and David Matthews to Michael Tippett and Roberto Gerhard, on the Naxos, NMC, Metier, Toccata, New Focus, Tadzik, Move, Lorelt, Innova, Parma, Chandos, and Guild labels. Composers who have written, or are writing, for them include Gloria Coates, Robert Saxton, Simon Bainbridge, John McCabe, Laurie Bamon, Elliott Schwartz, Jeremy Dale Roberts, David Horne, Michael Hersch, Gary Carpenter, Sadie Harrison, Evis Sammouris, David Matthews, Paul Pellay, Rosalind Page, Jeremy Thurlow, Hans Werner Henze, Michael Finnissy, Roger Steptoe, Hafliði Hallgrímsson, Poul Ruders, George Holloway, Peter Dickinson, Jim Aitchison, David Gorton, Edward Cowie, Jörg Widmann, and George Rochberg, to name just a few. The Quartet has held residencies at York University, and Goldsmiths University of London: they have given hundreds of workshops for young composers. The Quartet has a truly international career, playing at venues ranging from the Concertgebouw Amsterdam, the Bergen Festpillerne, Venice Biennale, the Concertgebouw, to Wilton's Music Hall, their London 'home', where they have given pioneering series of concerts over the past ten years, putting new music into the context of cycles of Beethoven, Mozart, Grieg and Faure."

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