Petrified Wood: Untitled 59

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1 PROGRAM NOTES

Petrified Wood brings together three exciting cutting-edge improvisers, from disparate musical realms to create new musical interactions utilizing novel new instruments and exploring the potential for live-coding in a musically interactive setting. The trio consists of the duo Jack Armitage (live-coding) and Laurel Pardue (svampolin) joined by the legendary composer, producer, musician, and pioneer of Bhangra, Kuljit Bhamra MBE (electronic tabla and percussion).
The performance features two novel alternative instruments designed to play, present, feel like, and even sound like the acoustic instruments on which they are modelled, but can equally sound completely unlike the originals. The svampolin, a hybrid electro-acoustic violin is a functional decomposition and recomposition of the violin retaining the instrument's acoustic sonic physicality while enabling audio signal modification. Meanwhile, the electronic tabla, developed as part of efforts to make tabla learning more accessible, can be used in more traditional roles either as a regular tabla or as an interface to control any array of expressive percussive instruments.

Lastly, Jack Armitage brings his expertise and musicianship as a live-coder to not only provide music and texture, but to resample and reframe instrumental player's ideas live or, through remote control of the svampolin, redefine performer intimacy as the coder alters the svampolin's performative results in real-time. Changing the instrument's functionality during a piece, the player and coder are able to shift the role of the instrument from structure to behaviour, or to freely transition between lutherie and performance.

2 PROJECT DESCRIPTION

Petrified Wood was conceived as a means to bring together and highlight diverse new performance technologies in a deeply musical manner. The collaborative-duo Lil Data and Bitchlovsky (Armitage and Pardue) was originally formed in order to explore the musical integration of live-coding and (augmented) instrumental performance. In Petrified Wood, they are expanding the musical palette adding an exciting percussive element by inviting tabla expert Kuljit Bhamra who is demonstrating his new professional quality electronic tabla to join [1].

A core philosophy underpinning Petrified Wood is improvisational musical excellence, with each performer bringing outstanding expertise on their chosen cutting edge instrument. Armitage is a respected performer within the live coding scene having performed at many Algoraves, at the International Conference on Live Coding (ICLC), the International Conference on Live Interfaces (ICLI), the Functional Art, Music, Modeling and Design (FARM) Workshop and at some of the world's most famous dance music clubs including Berlin's Berghain and London's Heaven. In performing with augmented instrumentalists such as Pardue and Bhamra, he is seeking to use live

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DOI: https://doi.org/10.1145/1122445.1122456
Music Proceedings of the International Conference on New Interfaces for Musical Expression
NIME'20, July 21-25, 2020, Birmingham, United Kingdom

coding systems to augment the ensemble and combine and re-route signals from each performer in strange and arresting ways.

Laurel Pardue has trained and performed professionally as a violinist for over 30 years touring and recording with Sam Lee and Friends and Mishaped Pearls including live appearances on BBC Radios 3,4 and 6, and German television. She has been working with and performing with the svampolin [2], a hybrid electro-acoustic violin she designed and created for over a year now and which won third in the 2020 Guthman Musical Instrument Competition, she will be re-purposing her existing instrumental expertise to control new pseudo-acoustic timbres.

Last but not least, you've possibly already heard the music of Kuljit Bhamra MBE. Best known as one of the pioneers of British Bhangra, Bhamra regularly composes, records, and performs for top international artists, internationally distributed film and television, UK theatre, and more. Bhamra will be playing mixed percussion including the new electronic tabla he has commissioned and developed for the past three years as part of his efforts to make tabla more widely accessible. His performance will demonstrate a seamless skill transfer between the acoustic and electronic tabla, and the extent the electronic tabla blends with his traditional acoustic instruments, along with new potential performance opportunities afforded by the electronic tabla.

Fig. 1. Petrified Wood with the svampolin and electronic tabla.

With Armitage at the computer, Untitled 59 will explore is the possibility for reshaping a performer's instrument and musical contribution through external control. As the svampolin includes external parameter control, live programming can be used to redefine performer intimacy as the coder alters the svampolin's performative results in real-time, changing the instrument's functionality during a piece. With the added ability to sample and manipulate the electronic tabla's audio, the programmer is able to take a conductor's role, playfully reshaping the narrative within the improvisation, provoking new musical conversations and subverting player's control of their own expression. Not content with purely asymmetrical control however, the ensemble will also explore the use of instrumental control data to change the structure of Armitage's code and the parameterisation of their algorithms in real-time, thus challenging the nature of the programmer's role and questioning the materiality of code. A progressive and assured trio, Petrified Wood promise to be both technologically and musically exciting.

3 TECHNICAL REQUIREMENTS

The space requirements for Petrified Wood are as follows:

(1) Live-coding requires a small table with an HDMI video link to project code.
(2) The electronic tabla and percussion setup is usually about the size of a regular drum-kit and will need to be set up in advance.
(3) Apart from space to stand, there are no significant space requirements for the svampolin.

All three musicians will need power accessible.

The audio requirements for Petrified Wood are as follows:

(1) 1/4 inch stereo jack outputs.
(2) 3 condensor mics for percussion.
(3) 1 phantom power xlr microphone input (for DPA mic)

4 MEDIA LINKS

- Video: https://youtu.be/7DzjI-_JGXI

ACKNOWLEDGMENTS

The authors would like to thank ...

REFERENCES

[1] Laurel Pardue, Kuljit Bhamra, Duncan Menzies, Graham England, and Phil Ederson. 2020. Demystifying tabla through the development of an electronic drum. In *Proceedings of the 2020 Conference on New Interfaces for Musical Expression.*

[2] Laurel Pardue, Kurijn Buys, Michael Edinger, Dan Overholt, and Andrew McPherson. 2019. Separating sound from source: sonic transformation of the violin through electrodynamic pickups and acoustic actuation. In *Proceedings of the 2019 Conference on New Interfaces for Musical Expression.*