The Soundscape of "*Bermulanya Di Sini…Kedah Tua*"!

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ABSTRACT

This article explores the relationship between soundscape, archaeological, and historical discourses within the music framework for the production of "Bermulanya Di Sini…Kedah Tua". The lack of tangible audio resources on Kedah Tua's ancient civilisation was a challenge to the initial compositional process for this production. To overcome this, the theoretical framework of soundscape ecology was employed as a working definition to understand how the different sonic vocabulary of Kedah Tua's ancient history can be reimaged and repositioned within the musical compositional structure of the play. The paper examines how the theory of soundscape ecology can be employed on the historical narratives of the past to create present day soundscape compositions that bring to life probable scenes of the daily activities and livelihood of this ancient civilisation that once flourished on a maritime trade industry between the 2nd–6th AD.

Keywords: *soundscape, soundscape ecology, sonic*

INTRODUCTION

This article, based on the play "*Bermulanya Di Sini…Kedah Tua*" (translated as Kedah Tua…Where It All Began), is a critical examination of the relationship between soundscape, archaeological, and historical discourses and the roles they played in informing the various compositions for the production. The play which was staged within the historical site of Lembah Bujang, in the state of Kedah on 21 May 2016 was aimed at recreating Kedah Tua's highly industrialised civilisation of a vibrant entrepot between the 2nd–6th AD while bringing forth new understandings to this little known and underappreciated civilisation. This paper will look at how the different compositions for the production of "*Bermulanya Di Sini…Kedah Tua*" were developed based on the theory of soundscape ecology to emulate as close as possible the diverse acoustic nuances that might have been present during Kedah Tua's early civilisation.

Over the last two decades, the study of archaeology has expanded beyond the narrow confines of historical analysis and site excavations to address more broader issues of feminist archaeology (Spector 2009), diaspora studies (Ogundiran and Falola 2007) and more recently the subject of performance and music (Debertolis and Bisconti 2013; DeMarrais 2014; Inomata and Coben 2006; Pearson 2013; Schechner 2007). Today, while artefacts and ancient monuments continue to offer valuable insights into a community's social, political, and economic structure, more recent archaeological literature have begun to include elements of a community's early soundscape, as they are believed to provide an equally important understanding of the social and cultural sphere of these early civilisations (Debertolis and Bisconti 2013; DeMarrais 2014). However, in the case of Kedah Tua, the archaeological literature on this early civilisation carried little to no information on the soundscape or music that prevailed during that period.

Soundscapes are an essential auditory link to our past and present environment. The different sonic vocabulary within our surrounding is a great stimulus, as it has the ability to paint images in the mind and evoke past emotions and memories. For the production of "*Bermulanya Di Sini…Kedah Tua*", while the various online and print resources along with the analysis of the archaeological remains served as an important point of reference in the development of the script and in deciding the props and costumes, the soundscape compositions had limited points of reference. This information on Kedah Tua's early soundscape would have offered an important basis from where the different temporal compositions could have developed.

Nevertheless, despite the lack of archaeological information, the numerous literary references on Kedah Tua's early history suggested an industrialised civilisation, one that thrived on the iron smelting industry (Nordiana et al. 2014). Additionally, the framework of the script and numerous site visits to Lembah Bujang also served to inform and structure the direction of the different compositions. Hence, the compositions for this production focused on rhythmic temporal cycles that emulated and highlighted the timbre and diverse acoustic nuances of biophony (sounds of animals), geophony (sounds of nature and the environment), and anthropophony (human generated sounds). These compositions presented an auditory structural basis for the entire production, as it set the tone for a flourishing kingdom that thrived on a maritime industrialised entrepot.

SOUNDSCAPE ECOLOGY AND THEORY

"Soundscape" and "acoustic ecology" are two terms that have been widely used in numerous disciplines to examine the auditory properties of an environment and its relationship to the locality it emerges from (Farina and Pieretti 2012; Wrightson 2000). Soundscape is a sound, or combination of sounds that emanate from a particular ecological landscape that travels across space and time to create a sonic environment (Farina 2008; Pijanowski et al. 2011; Truax and Barrett 2011; Schafer 1980; Southworth 1967). The term soundscape was first introduced by Michael Southworth in 1967, in his research that explored how acoustic nuances of a particular environment enhanced a person's perception of temporal space (Pijanowski et al. 2011; Truax and Barrett 2011). Almost a decade later, in his seminal work on soundscape design, Schafer (1980) who is a musician by training, formalised the definition of soundscape, and introduced the concept of acoustic ecology. He describes this as the study of "the acoustical characteristics of an area that reflect natural processes" (12). Schafer's definition of acoustic ecology helps explain the idea that, just like language, customs and architecture, a site-specific sound of a particular geographic location has the profound ability to express a community's identity.

In 1987, Krause redefined the sources of sound and consolidated acoustic ecology within the parameters of three main acoustic components; biophony, geophony, and anthropophony. Biophony represents the collection of sounds produced by all living organisms at a location over a specified time, while geophony sounds are those originating from the environment, for example wind, water flow, and thunder, and finally anthropophony is produced by human-generated mechanical sounds like air conditioning units, vehicles, and industrial machines (Krause 1987). The interaction of all these sounds across various landscapes contributes to the acoustic properties of "soundscape". Finally, in 2011, in their engaging article on soundscape and its role within landscape ecology, Pijanowski et al. (2011) honed in on the definition of "acoustic ecology" to propose a new area of study called "soundscape ecology". This new theory, which is essentially the science of sound in a landscape, examines the "ecological characteristics of sounds and their spatial-temporal patterns as they emerge from landscapes" (203). Within the study soundscape ecology, importance is placed not only on the relationship between sound and the environment, but more importantly on the function of sound within its environment, and how this environment in turn facilitates the production of sound.

The conceptual framework of soundscape ecology leverages on two important fields of study; acoustic ecology and landscape ecology, which in turn provides a new perspective on the acoustics of a landscape. Acoustic ecology, as previously mentioned, is a study that focuses on the production of sound and the relationship between man and his sonic environment (Primeau and Witt 2017; Schafer 1980). Landscape ecology however, examines the relationship between spatial pattern and ecological processes, and looks at landscape as a holistic entity made up of different elements that continuously influence each other (Naveh and Lieberman 2013; Turner et al. 2001; Urban et al. 1987). Thus, the study of soundscape ecology draws from these two conceptual frameworks and focuses on the production of auditory impulses by both living and non-living organisms (acoustic ecology) and how it correlates with the environment (landscape ecology).

It is important to note here that in its essence, the theory of soundscape ecology revolves around sound in the present environment, and its ecological significance within its current landscape. Researchers of this field are concerned with mapping and measuring sound waves and the analytical changes in the property of sound within its present sonic environment while emphasising the auditory connections with nature. However, in this paper, soundscape ecology is employed as a working definition that amalgamates the acoustics of biophony, geophony, and anthropophony imbedded within the historical texts and archaeological artefacts to recreate and reimage the soundscape and temporal landscape of Kedah Tua's ancient kingdom. The paper will seek to address the question of how the theoretical framework of soundscape ecology can be employed on the historical narratives of the past to create present day soundscape compositions, and how successful was the implementation of this theory on the different compositions that aimed to bring to life probable scenes of the daily activities and livelihood of this ancient civilisation that flourished on the iron smelting industry between the 2nd–6th AD.

Modelling Ancient Sounds

Our awareness of sound has always been encased within the context of melodies, rhythms, and form. Rarely do we break melodic components into smaller units to try and understand the individual sonic nuances that are present within a string of notes. Even more rare is the ability to actively listen to the various "soundscape" or environmental sounds present within our surroundings and acknowledge them as manifestations of music. This site-specific sensory acoustic awareness is central to the study of soundscape ecology.

Soundscape compositions are musical works that was first developed at Simon Fraser University in the early 1970s that introduced environmental sounds into electroacoustic compositions (Truax 2002). Musicians often employ synthesisers and music software to assist in the production of their compositions. Within this paper, the term soundscape compositions will be used to refer to the various acoustic works that have a recognisable presence of environmental sounds and context which have helped set the scene for the production "*Bermulanya Di Sini…Kedah Tua*". The aim of the different compositions was to capture the sonic environment of Kedah Tua and represent them through present day electroacoustic soundscape compositions. While there will be references to the different compositions, this paper will not present a spectrogram analysis of these soundscape compositions.

Prior to commencing the compositional process, visits were made to the site of Lembah Bujang and to the Lembah Bujang Archaeological Museum to gather tangible information on Malaysia's earliest civilisations. One of the aims of these visits was to determine if the archaeological remains would be able to reveal the hidden soundscape of this ancient civilisation. The archaeological remains and historical discourse of Lembah Bujang were carefully studied to extract information that would provide a preliminary foundation for the different compositions. The museum is the only of its kind to display archaeological material that serves to validate the presence of an early Hindu-Buddhist civilisation in Kedah Tua. The excavations on display also reveal how Kedah Tua's strategic sea route contributed to its flourishing maritime trade entrepot that opened the route for countries like China, India, and Arab to trade with the Malay Peninsula (Murphy 2018; Saidin et al. 2011). Early excavations have revealed jetty remains, iron smelting sites and one of the oldest recorded clay brick monuments in Southeast Asia, which attest to claims of Kedah Tua as one of the richest and earliest archaeological sites not only in Peninsula Malaysia, but also, and somewhat more importantly within Southeast Asia (Nordiana et al. 2014). This information on Kedah Tua trade activity created the basis from where the story line for this play was set.

Along with the site visits, numerous meetings were conducted between the director of this production, composer and music director. This was to ensure that the compositions were in line with the theme and overall aim of the production. The various soundscape compositions for this production was digitally mastered to ensure the most appropriate sound or tone colour was used to resemble as close as possible the acoustical landscape of Kedah Tua. Parallels were drawn between the geophonic landscape of Lembah Bujang and the possible composition of sounds to ensure that the compositions would bring to life the archaeological artefacts through a site-specific performance. Within the temporal landscape Kedah Tua's industrial civilisation, the acoustic nuances of metal, wood, wind, water, and birds formed the crux of the compositions. Given the lack of historical and empirical data, the different composition stayed clear of depicting an exact sonic representation of the past, but instead presented a rather neutral soundscape that would symbolically embody the rich and flourishing kingdom of Kedah Tua.

The preceding arguments regarding the approach of composing the music for the play, essentially, establish the main premise from where the entire musical score is based on. Central to the discussions above, it can be argued that several factors need to be taken into consideration in order for the music to be informed by the different acoustic properties associated with biophony, geophony, and anthropophony. Furthermore, within the context of soundscape ecology, the notion of elapsed time between Kedah Tua's past and present soundscape is an area that was given much consideration when formulating the different compositions. This notion refers to how sound is, and can be perceived today, particularly when discussing ancient "soundscapes" and how the different elements of "soundscape ecology" can be positioned within our present environment of space and time. This understanding of the varying degrees of sound in relation to the past and present have informed the musical construction of this play which in turn connects the ancient world of Kedah Tua to the discursive narrative of "*Bermulanya Di Sini…Kedah Tua*". In other words, the pre-composition formulation of the different musical works explored the possibility of associating semiotic sound significations to represent the past soundscape of biophony, geophony, and anthropophony; acoustic elements that have perhaps diminished from Kedah Tua's present day soundscape.

How is it possible to reimage and reconstruct the soundscape of an ancient civilisation purely from historical and archaeological data, void of any form of tangible audio records? This question alludes to the notion that music is an abstraction that requires supplementary associative signs for the different soundscape elements to carry meaning, both in the form of sonic and image representation. Music that is composed purely for the purpose of an audio composition is often void of a definitive representation, as its meaning can be subject to various interpretations. In other words, the sound of a musical note by itself can be taken to only signify timbre and nothing more unless meaning or lyrics are attached to it. The approach of the musical compositions for this play was aimed at appropriating the construct of programmatic music; music that is composed and structured based on a script or programme, thus rendering the entire composition an associative meaning and logic. This inquiry into the preliminary pre-compositional construction was necessary to enculturate the sounds of the music for the play. In doing so, it provided the composer with an informed formula for the compositional process to occur, while taking into consideration the storyline of the play and the elements of sound and timbre within the framework of soundscape ecology.

Another factor that required serious consideration with regards to the music and its ecological phonic associations was the relationship between general and specific sounds. One of the approaches to address the issue of contextual accuracy of the music associated with the imagined space and time of Kedah Tua was to device a generalised and universal musical premise. The composer and music director were cautious not to use exact sonic nuances to represent a particular sound. This is because given the lack of audio references, it was important that the compositions remained relatively neutral, rather than try to emulate an "imagined" soundscape that might have been present during the period of Kedah Tua's civilisation. Hence, for example if the composer wanted to create the sound of water, he would not use recorded sound of water but instead used the timbre of chimes to emulate the sound of water droplets.

The first scene for "*Bermulanya Di Sini…Kedah Tua*" opens with a group of labourers hard at work smelting iron and performing extremely physical and arduous tasks. Thus, the music that accompanied this physical act, which required the exertion of the body demonstrated highly rhythmic and percussive sounds. The acoustic properties of anthropophony from the theory of soundscape ecology were used to guide the selection of audio impulses. Throughout this composition, the sound of the gong was constantly heard as it marked the metrical cycle and provided a sense a precise timing. Other anthopophony elements included the loud sounds of iron being pounded and rubbing against each other in a timely rhythmic manner. This representation of the loud percussive timbre, fixed rhythmic pulses and a sense of synchronicity in a composition is often associated with things like coordination, systematic, and methodical delivery of a task. This link is often universal and regardless of its historical context, (i.e.: Kedah Tua and present-day Kedah) is not contingent in time and space.

The philosophy behind the composition for the labourer scene was derived from the famous works of sea shanties, where the music sung by the seamen on board the ships were often rhythmic and had a specific tempo to coordinate the heavy physical labour and facilitated the efficient delivery of a task (Hugill 1961). This form of symbolic musical signification, does not require very specific space and time contextualisation, but rather a sonic metaphor that can be considered as general and universal. Hence, while we acknowledge that soundscape ecology leverages on present soundscape, this notion of manoeuvring by way of transgressing the space and time of contextual accuracy is not to contest the earlier arguments but rather to formulate a framework that enforces contextual logic that is in purview of the play. This strategy of composition, in general, can be asserted as devising the music for the play mainly on aesthetic logic instead of developing the composition based on an accurate representation of Kedah Tua's historical soundscape.

In another scene, eight female dancers are seen entering the stage at the wake of dawn and symbolically circle a structure that was built to symbolise both a ritualistic monument and a well; a representation of life source. The dancers then proceed to re-enact the activity of fetching water from the well while performing a ritualistic dance. The compositional structure for this scene was designed to ensure that the music carried in it both a ritualistic element together with a sense of playfulness that would demonstrate the playful nature of young damsels. The sound of gentle water droplets and the voice of a female singer rendering an *alap* set in the morning Hindustani Raag of Bhairav helped welcome the break of dawn as young girls gathered around the well. In this composition sounds like water and waves (geophony) along with the tone colour of birds chirping (biophony) were incorporated to create the mood of tranquillity and elegance. The inclusion of these different tonal timbres, demonstrates how the theory of soundscape ecology can be successfully employed into present day compositions that attempt to reimagine past narratives.

The various soundscape compositions that accompany the dance of worship, the iron smelters, the lovers' dance, the court dance, and the menacing tsunami that whipped out the entire village does have specific textual references between the music and the narratives of the script. However, the metaphoric sound

associated with a unified body; in the act of worship, the literal sound of percussive metals, the sound of delicate water droplets in close relation to the delicate dance of the lovers and the regal like sound of tuned bronze accompanying the female court dancers, respectively represents the aesthetic nature of sound and soundscape. Therefore instead of closely structuring the compositions to adhere to the historical data of a past civilisation, which through our research has proved impossible to replicate, the composer chose to bring to life the narrative of "*Bermulanya Di Sini…Kedah Tua*" based on the aesthetics of music and sound in relation to soundscape ecology, and centred on a well-established logic; a logic that leverages on the premise that music is universal and when presented in its raw aesthetic form, is able to transcend historical and archaeological discourse.

CONCLUSION

In this paper, it was shown how the acoustic representations of the environment provided viable means to trace and recreate the temporal and spatial complexities of a civilisation that was kept alive within the literary references and archaeological remains. The compositions for the production saw the amalgam between new age digital technology (anthropophony) and the acoustic sounds of the wind and water (geophony) along with the sounds of animals (biophony) to give life to the various scenes for the play. The underpinning philosophy behind the soundscape design was to ensure that the different temporal compositions remained culturally and ethnically neutral, so as to not heavily reflect on a particular community, but rather to highlight and represent more diverse acoustic nuances that might have been present during the time of Kedah Tua's early civilisation. The compositions discussed in this paper demonstrated how the narratives of Lembah Bujang were translated into soundscape compositions that reflected the daily activities and livelihood of this ancient civilisation. More importantly, analysis of the various soundscape compositions revealed that if sound is taken to represent a general and universal musical premise, it is possible to transgress the theory of soundscape ecology into the past narratives of Kedah Tua to create present day sonic vocabulary that is representative of both our historical past and present reality.

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