

## Batu Baraguang: Megalithic Stone Chime Music in Luhak 50 Koto, Minangkabau, Indonesia

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### Abstract

Batu baraguang is music performed on massive stone gong chimes found ins Luhak 50 Koto, Minangkabau, Indonesia. Very little has been written nor investigated regarding much of the megalithic remains found throughout Sumatra and Nias. The researchers employed a qualitative methodology in this investigation. As the primary data collection instruments, they utilized observation, interviews, document analysis, and data interpretation. The study adopted an ethnographic approach, which placed a strong emphasis on observational techniques. The instrument consists of six stones placed on a bamboo cushion. Rhythmic motifs are played by three people in a cross-legged sitting position. Each player hits two stone slabs that have different pitch levels. The interlocking tones produce cumulative short melodies which are recognized as discrete melodies or pieces. In this article we seek to describe the musical system as evidenced in these stone chimes, and the manner of batu baraguang performance. We deployed both qualitative descriptive methods coupled with quantitative techniques in pitch measurements. The ensemble consists of six talempong stone slabs which we call B1, B2, B3, B4, B5, and B6. The pieces are based on indigenous concepts called palau, tongah and panyudahi. Each of these corresponds to three pairs of stones performed by three players. We contend based on the findings of this research that the ancestors of the Minangkabau people in the Megalithic era already possessed an aesthetic musical identity as exemplified through the medium of this stone chime.

**Keywords:** Batu baraguang, Aesthetics, Mengalithic period, Limapuluh Koto Minangkabau.

Art is omnipresent in human life; it is universal, anywhere, and everywhere, anytime, and by anyone. There is no social culture in the world that does not accommodate the presence of art at some level as an integral part of life (Batubara et al., 2024). This implies that art is a human need that has no boundaries of place, time and status. Sinaga et al (2021), in cross-cultural and historical studies, has shown evidence that the culture of any society always leaves room for the birth of aesthetic expression in the form of various types of artistic works including music. Batu baraguangs a stone music culture left by the ancestors of the Minangkabau people found in Luhak Limapuluh Koto, Minangkabau - West Sumatra. The discovery of stone musical instruments indicates a musical consciousness. Ancestors of the Minangkabau people in the Stone Age created a musical system starting from 6 (six) stone slabs arranged in a row and in this article, they are marked as B1, B2, B3, B4, B5, and B6. Logical thinking is to reason systematically to produce correct decisions. (Heryadi, 2017: 3). Reasoning systematically creates the musical concept of stone chime music in pairs; each is called palalu (that which initiates) with pairs B1 and B2; (the middle one as peningkah) with pairs B3 and B4; and the pair B5 and B6 are called panyudahi (which ends; the formation of the song).

The musical concept is like bronze music, as with *talempong direnjeang* (*tenteng*) which developed in later times. Andar Indra Sastra et.al note that *talempong direnjeang anam salabuhan* (*tenteng six sets*) is a set of idiphone musical instruments, played by three people, each holding two *talempong* pots. *Talempong* is *direnjeang* (held) with the left hand and *diguguah* (beaten) with the right hand using a special *pangguguah* (beater) which cumulatively forms a typical Minangkabau *talempong direnjeang* melody. (Sastra et al., 2021: 97). The two musical concepts *batu baraguang* and *talempong direnjeang* are conceptually one in the same.

According to Iswantara et al (2013), this shows that modern society has the same markers as past society, namely totemic life, statues, or stone [music] artifacts. From an archaeological perspective, Setyoko et al (2022) note that music is also a scientific discipline that attempts to reconstruct aspects of the musical past through the study of fossils and artifacts. On the one hand, this involves reconstructing the history of humans as instrument makers and musical performers through the discovery and identification of prehistoric musical instruments. Batu baraguang as a musical system is arranged in a structured manner. When struck it will produce different sounds. Musically it is grouped into 3 (three) pairs of stones, each called *palalu*, *tongah* (*paningkah*) and *panyudahi*.

The difference in high and low sounds is the basis for thinking about the formation of stone chime music pairs; Aesthetically, it has the principle of harmony - "harmony" - which takes full consideration of the artist's musical taste. Each musician strikes two pairs of stone blocks with different rhythmic patterns. The combination of the three rhythmic patterns produces a short melody that cumulatively represents the theme of a song. Windha in R. Chairul Slamet, et al says that the use of stones as musical instruments is intended to produce rich rhythmic patterns with different sound colors. (Slamet & Djohan, 2017: 65).

Stone Age culture marks an era in the periodization of cultural history in Indonesia's past. Each historical period is marked by the characteristics and progress of civilization at that time and includes the area where it spread. The discovery of stone chime music tells us that the ancestors of ethnic groups have inhabited a certain area. Slamet et al said that related to the dimension of time, stones can provide a brief overview of the history of civilization and its relationship with the world of art and music. This conveys the message that stone chime heritage [stone chime music] is a point for reading past events. (Slamet & Djohan, 2017: 71). The

existence of stone chime music can be traced at several megalithic sites; discovery of pieces of pitched stones which are estimated to be between 3000-2000 years BC. (Slamet & Djohan, 2017: 66). One of the megalithic sites is the stone chime music found in the archipelago (Indonesia) is in the Luhak 50 Koto area Minangkabau - West Sumatra. Taufik Abdullah notes that the spread and distribution of megaliths in Sumatra are found around the islands of Samosir, Nias, Limapuluh Koto, Kerinci, Lahat, North Lampung, Central Lampung and South Lampung. (Abdullah, 2012).

There are indications that in the neolithic period, the ancestors of the Minangkabau people lived in an area in the Luhak 50 Koto area, Minangkabau. This concurs with what M.D. Mansoer in Andar Indra Sastra (2018) states that the first inhabitants to live in Minangkabau were the Austronesian (Malay-Polonesian) or Old Malay people who came in waves from mainland Southeast Asia within family ties. Their arrival is estimated to date back to 2000 B.C. (Literature, 2018: 8). Claire Holt (2000) estimates the neolithic or new stone age as approximately 2500 B.C. to 1000 B.C. Technology in this era is thought to have been introduced by migrants from Southeast Asia along with megalithic culture (large stones) in the form of menhirs and stone chimes as well. (Holt, 2000: XXII-XXIV). Besides carriers of the new stone culture, they also brought simple agriculture and animal husbandry, as well as adherence to matrilineal customs (Sastra, 2018: 8). These matrilineal customs became a unique feature of Minangkabau people today whose narratives also traceable back to this neolithic period.

This stone age culture took the form of menhirs and was spread across several areas – districts or luhak in Minangkabau: Luhak Tanah Datar, Luhak 50 Koto, and Luhak Agam. These menhirs are scattered in residential areas; and there are also those that are grouped in one location, varying in height, from 0.5 meters to 3 meters. These megalithic relics are not only in

the form of large stones in the form of menhirs; but also musical instruments made of stone; people call it batu baruang; a stone that can produce the sound of a gong (talempong) – complete with sound structure (tone) and musical concept. Bruno Nettl notes that instruments are one of several clues about the history of various musical and artistic cultures. These instruments can be found at various archaeological sites and can yield excellent clues regarding past musical life. (Nettl, 2012: 200).

Art and aesthetics are like two sides of a coin: art in the form of material objects and aesthetics as formal objects. Batu baruang consists of six granite slabs arranged in a row on a support made of two bamboo sticks. Underneath there is empty space which functions as a resonance chamber. The ancestors positioned them into three stone pairs; each is respectively called palalu (the one that begins), tengah (the one in the middle is also called peningkah), and panyudahi (the one that ends). In performance, each player hits two pairs of stones with a different rhythm pattern and additional rhythm is added with a double-headed drum.

## RESEARCH METHOD

This study used qualitative method. The researchers are the main instrument in collecting data through observation, interviews, documents and data analysis; through an ethnographic approach that emphasizes observation (Creswell, 2014; Andayani et al., 2023); We rely on earlier work including (Batubara, 2020; Prasetya, 2013) which explains how baruang stone was formed aesthetically during the Neolithic era in Luhak 50 Koto, Minangkabau. Data obtained through observation, interviews, documents, analyzed – descriptive; in a natural, rational and empirical way (Sugyono., 2008; Prasetya et al., 2023) – (Anselam Strauss & Juliet Corbin, 2009: 2) – (Moleong, 1996: 4-8) and (Simatupang, 2013); with an aesthetic approach; Beardsley in Ramadhan & Wulandari (2023) stated that aesthetics is a discussion about the nature of

works of art and beautiful objects made by humans, a discussion about the aims and objectives of creating works of art and how to understand and interpret them, and looking for benchmarks for evaluating works of art using the principles certain rules are adequate.

Data collection was conducted through observation, interviews and documentation. Observation is a method of collecting data by making direct observations of complex situations by prioritizing observation and memory (Sugyono, 2008; Batubara and Maniam, 2019; Batubara et al., 2023). Participant observation also involved a live performance of batu baruang at the Nagari Talang Anau Cultural Heritage Site, Gunuang Omeh - Luhak 50 Koto District. Articles and other literature related to material objects and performance events were provided as additional information, which was then used as a guide for interviewing informants.

A meeting of two people with the aim of exchanging information and ideas through questions and answers so that meaning can be constructed on a particular topic is carried out in the form of an interview (Esteberg in Septiana, 2022b). Interview techniques are used in conjunction with participant observation methods, unstructured in nature. (Norman K. Denzin & Yvonna S. Lincoln (Eds.), 2009).

Several interviews with the musicians were conducted after the performance. The interviews focused on the musicians' empirical knowledge to explore the musical concept of Batu baruang. Interview data included how they identified masonry; the way they organize performances and the sensitivity of their musical sense to the rhythmic motifs being played. Apart from conducting interviews, documentation is also carried out through audio-visual and visual media. Documentation is a record of past events. Documents can be in the form of written images, or monumental works by someone. (Sugyono., 2008). This was done to complete the data and strengthen the argument that this event had actually occurred and was in accordance with actual conditions, for analysis needs. Data

analysis was carried out inductively – in accordance with the nature of qualitative research; Researchers build emic ways of thinking to provide explanations. The explanation is supported by the concept of theoretical thinking to increase the scientific level of the issues discussed. Conceptually, data analysis was conducted by Miles and Huberman's interactive model which consists of three stages of analysis, namely data reduction, data presentation, and drawing conclusions or verification. These three activities are conducted in an interactive form with the data collection process as a cyclical process. (M.B. Miles and A.M. Huberman, 1992: 18-20). Data reduction is a process of selecting or summarizing the main things. Data reduction attempts to provide a perspective on the data needed, because not all data from the field is consistent with the discussion. (Strauss & Corbin., 2009; Raj, Batubara, and Veerappan, 2020). Specifically, data analysis was conducted using an aesthetic approach supported by musicological data, which included the musical system and the batu baruangmusical system. The aesthetic approach refers to the presence of necessary conditions and sufficient conditions to show the atmosphere of something, namely an object, activity, experience, or aesthetic situation. Any assumptions and individual opinions should be placed in brackets to gain a sense of objectivity in the study of the phenomenon. The last step involved organizing and structuring the data. The form of data presentation is narrative. Conclusions can be drawn continuously while in the field. Drawing conclusions must go through a verification process by rethinking during writing, reviewing field notes, and discussing to produce logical conclusions. (M.B. Miles and A.M. Huberman, 1992: 18-20).

Our hypothesis posits that the musical - aesthetic - awareness of the ancestors of the Minangkabau people was already formed in the Neolithic era. As a musical system, batu baruang: stone chime music consists of six stone slabs with different sound levels –

frequencies –; in this article it is marked with the letter B; stands for Batu, consisting of B1, B2, B3, B4, B5, and B6. Aesthetically, this is called a ‘condition of necessity’. Musically; ‘sufficient conditions’ lead to the formation of stone chime music pairs; each is called palalu, tongah and peningkah. In performance, each produces a different rhythmic motif; the interaction of the three rhythm motifs produces a short melody, which people call a piece, which can be represented in musical notation.

## RESULTS AND DISCUSSION

The baruang stone chime music system consists of a stone salabuhan (set) consisting of 6 (six) pieces of stone - stone plates. The creation of stone musical instruments must be based on the musical knowledge of the people - artists - at that time. That means, they have awareness and knowledge - taste - music related to high and low sound - frequencies. This musical knowledge is used as a basis for identifying differences in the height and level of sounds based on the length of the stone slab. Visually, the stone slabs are arranged in rows and pairs and are in a paired condition; Technically musical, the row of stones is struck by three players. Each of them plays a pair of with different rhythm motifs. First pair; the left side of the image is called palalu; The next 2 (two) pairs they call tongah (in the middle) and the last 2 (two) pairs are called panyudahi; the very end. This means that the pieces of stone that have been arranged have been positioned according to the role of each player.



Figure 1. Batu baruang: stone chimes arranged in the Archaeological Site complex at

Nagari Talang Maua Luhak Limapuluh Koto  
(Photo: Doc. Andar 2022)

Baruang stones as in the picture above are arranged in rows; and the positions of the sounds are known, namely: B1 = C#6 + 10 C, B2 = D6 + 35 C, B3 = D#6 + 17 C, B4 = F6 + 35 C, B5 = A#5-28 C, and B6 = E7 + 35 C.

This data was obtained based on sound and frequency identification using the Da Tuner Chromatic software. Based on these frequency records; musically "they" - the artists - divide it into three parts: the first is called palalu, meaning that which provides a path to pass through; the second is called tongah, which functions as a peningkah – located between palalu and panyudahi; and the third is panyudahi (see column 5) which functions to justify making it a complete melody; they call it a song.

No	Posisi Batu/ Nada (Cent) = C	Frekuensi (Hz)	Jarak (Interval)	jarang (interval) pasangan musik batu (Cent) sebagai satu system musik
1	2	3	4	5
B1	C#6 + 10 C	1115.2	98.36	→ Palalu
B2	D6 + 35 C	1188.4	326.87	
B3	F6 + 35 C	1425.7	425.24	→ Tongah
B4	C#6 + 10 C	1115.2	1454.22	
B5	E7 + 35 C	2583.2	1792.99	→ Panyudahi
B6	A#5-28 C	917.0		
Satu sistem musik			Satu system musik	

Chart 1. Batu baruang frequency measurements.

The chart above consists of five columns; The first column marks the position of the stones (marked with the letter B) according to our notation. The second column marks the position of the sound (tone) according to the sequence number of the stone and the next; the third column is a frequency record. Next, the fourth column is called jarak (a kind of interval) between B1 and B2 and so on according to the stone pairs. The interval record is obtained through the Cent value-determination of an interval application, and finally the fifth column shows pairs of stones called, palalu, tongah, and panyudahi. Notes: one music system produces a

sequence of sounds (tones) according to the condition of the stone slab; see column 2.

The results of frequency measurements obtained from batu baruang as a musical system can be compared with frequency records as written by John Backus in the American pitch frequency standard which states: middle C octave frequencies - C4 and C 5 with the following details:

C4 = 261.63, Cis = 277.18, D4 293.66, Dis = 311.13, E4 = 329.63, F4 = 349.23, Fis = 369.99, G4 = 392.00, G# = 415.30, A = 440.00, Ais = 466.16, B4 = 4 93.88.

C5 = 523.25, Cis = 554.37, D5 = 587.33, Dis = 622.25, E5 = 659.26, F5 = 698.46, Fis = 739.99, G5 = 783.99, G# = 830.61, A5 = 880.00, Ais = 932.23, B5 = 897.77, and territory note C6 = 1046.50. (Backus, 1977: 134).

The comparison above is used to determine the sound position and frequency of batu baruang as a musical system; the position of the sounds arranged based on the order of high and low sounds (tones) found in the stone masonry. The high and low sounds of the baruang stone are identified in positions C#6 + 10 C, D6 + 35 C, F6 + 35 C, C#6 + 10 C, E7 + 35 C, and A#5-28 C. In these positions it can be It is said that the ancestors of the Minangkabau people in the Stone Age had an aesthetic "awareness" of one musical system - semi absolute. From these conditions, baruang stones have sounds (tones) that fall into the middle C octave category, and some do not, such as E7.

Musically, batu baruang is grouped into three parts, namely pamulo (the starter) with B1 and B2; tengah/tingkah (middle) pairs B3 and B4, and panyudahi (finisher) with B5 and B6. We observe that musically, the ancestors of the Minangkabau people in the new stone age - Neolithic - "already had knowledge of music and musical systems" as we know them today; wala[pun in simple form. In terms of musical

concept, Madi Bahar said that palalu/pamulo; means giving a way through, which means giving a "way" in the form of a rhythmic pattern to be "passed" by the part that plays the role of paningkah (peningkah). Paningkah means giving action through rhythmic motifs to palalu and panyudahi (finishing) patterns -- (Bahar, 1994: 115). This musical system is the basic principle for playing several types of pieces; each player plays two pairs of stones. The creation of music in society cannot be separated from various concepts, that concepts are a source of knowledge that originates from the world of ideas. Critically, it is through this process that Hegel believes that the human mind can create, and then developing, the concepts that enable us to understand our world. (Barnham, 2020) – like baruang stones.

These musical concepts are respectively called: palalu, tengah and panyudahi. Palalu initiates; meaning the one who gives, tengah with a rhythm motif created with the status of the palalu rhythm motif; both form the framework of the piece. Panyudahi, meaning the one who ends, with a different motif, the task is to increase the rhythmic motif or song framework that has been formed by palalu and tengah. This third step is called panyudahi; which ends and at the same time justifies the formation of a short melody, and what people call a piece. in the formulation of the triple pattern aesthetic concept.

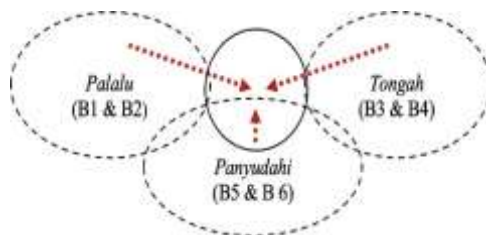


Figure 2. Aesthetic pattern of the batu baruang

Musically, the concept found in the batu baruang performance is the same as the musical concept in talempong direnjeang anam

salabuhan (renjeng -- a set of six sets). Talempong direnjeang also consists of 6 six talempong with a hierarchy of pitches that have been arranged based on the musical taste of the artists. This musical taste can be identified from the differences in the high and low sounds of the talempong based on an artist's empirical knowledge. (see chart below).

No	Posisi Bunyi/ Nada (Cent) - C	Frekuensi (Hz)	Janjang (Interval)	Janjang (Interval) pasangan musik batu (Cent) sebagai satu sistem musik
1	2	3	4	5
T1	A4 + 13 C	440.36	160.71	
T2	B4 + 6 C	492.05	175.79	Paningkah - 349.87
T3	C#5 - 30 C	544.64	95.47	Jantan - 300.99
T4	D5 - 30 C	575.52	254.39	271.27 - Pangawinan
T5	E5 + 19 C	666.62	196.50	
T6	F5 + 25 C	708.92		
Satu sistem musik			300.99	Satu sistem musik

Chart 2. Position of the main sound, frequency, janjang talempong Nagari Lubuak Batingkok, Luhak 50 Koto, Payokumbuh

The chart above can explain that the music system (column 2) built by talempong rejeang is based on the artist's musical knowledge and taste. Note the tonal order A4, B4, C#5, D5, E5, and F5. Based on this musical knowledge and taste, they created a musical concept in the form of talempong pairs, and each was called jantan, paningakah, and pangawinan. Conceptually, baruang stone and talempong direnjeang are the same, but the names are different. In terms of the music system, talempong rejeang is based on musical knowledge and taste and they can determine the sound level (tone) of the talempong (tuning system) according to their musical taste; because talempong is made from a type of bronze metal which can be tuned to the sound (tone) precisely. Whether the sound of talempong is correct or not is based on their respective musical tastes. This is different from baruang stone, whose material comes from stone slabs and naturally cannot be tuned. Estimates of the sound of stones are based on the

size of the stone slabs available in the natural surroundings.

To form the talempong direnjeang musical system, they identified different sound levels (tones). The talempong music system with six different sound levels is a reflection of the thoughts, the rationality of talempong renjenag artists in Minangkabau. Xaveria Diah said that sound itself as the most important material in music can only be said to fulfill its function if it has undergone modifications related to the level of consciousness and human creative power [mental creation]. (Xaveria Diah K, 2013: 94). The level of awareness and creative power is manifested in a talempong music system which is based on its own logical thinking. Logical decisions are made through identifying the high and low of six talempong sounds; in this paper they are marked with T1, T2, T3, T4, T5, and T6. Structurally, T1 to T6 can be said to be a manifestation of the artists' preferences in arranging the sequence of talempong sounds (tones) - see column two in chart two above.

The formation of the talempong pair as a musical system is realized through the concept of lipek duo (folding in two). Andar Indra Sastra, at. al in Jonus (Journal of Nusantara Studies) says that jis an intelligent method used by talempong music artists to get musically appropriate talempong partners. This can be expressed through identifying the sequence of talempong sounds from the lowest to the highest talempong sound; T1 – T2 – T3 – T4 – T5 – T6. Then, theoretically folded in two (Part I and Part II); the one on the edge is stressed (T4), the one in the middle is pushed aside (T5) and finally forms a talempong pair; they call them jantan, paningkah, and pangawinan – as in the following chart.

(Sastra et al., 2017: 338).

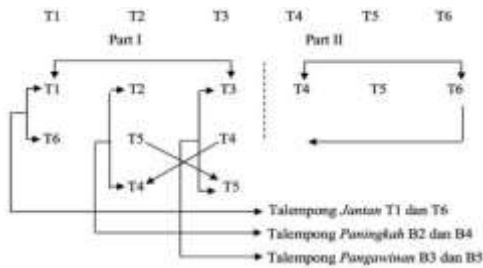


Figure 3. The concept of Lipek Duo was finalized in forming the musical concept talempong couple; Male, Paningkah, and Pangawinan

The formation of the talempong pair *direnjeang anam salabuhan* (hierarchy of the six tones) as in the chart above is a reference for talempong artists in various nagari in Luhak Nan Tigo Minangkabau to identify the right talempong pair that suits their respective musical tastes. Talempong performances are usually performed while standing and can also be done while walking in procession. Visually, the presentation of talempong *direnjeang anam salabuhan* can be seen in the following picture.



Figure 4. The arrangement of talempong *direnjeang*

The picture above shows the arrangement of talempong *direnjeang* consisting of the pairs of talempong jantan, talempong paningkah, and talempong pangawinan forms a aesthetic pattern based on three. The aesthetics of the three pattern corresponds to the three interlocking rhythm motifs of the talempong game. Musically, the

different rhythmic motifs of the playing created by each pair of talempong form a composite melody – "the middle world" – and aesthetically it is called *bataun* (see the following music transcription).



Figure 5. Notation 1: Malin Kailia

The piece *Malin Kailia* was inspired by the hasty steps taken when a *Malin* (one of the religious titles) is assumed by someone imagined to be walking quickly downstream in the nagari (village). This hasty step became the philosophical basis for the creation of the song *Malin Kailia* in talempong *direnjeang anam salabuhan*. The formulation and aesthetic construction of the three talempong elements can be seen in the following chart.

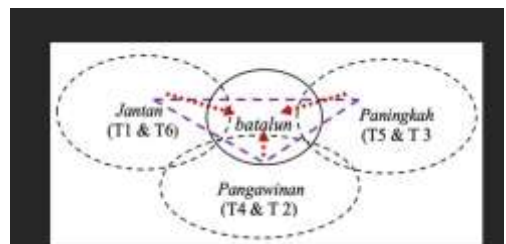


Figure 6. Aesthetics of the three talempong *direnjeang* patterns jantan ("male") and paningkah constitute a paradox mediated and



resolved by the pangawinan to create the batulan (middle world).

The triple pattern as referred to is firmly rooted in the Minangkabau cultural concept in the terms *tali tigo sapilin* and *toko nan tigo sajarangan* (*tali tiga sepilin* and *toko nan tiga sejarangan*). The tripartite form of unity, (harmony) becomes a musical means to achieve batulan – the achievement of aesthetic quality. Sumardjo said that the tripartite pattern aesthetic focuses on the formation of paradoxical symbols to create a "middle world" that harmonizes all things that appear dualistic and antagonistic. (Sumardjo, 2000: 261). The tripartite pattern resolves difference.

Understanding music in people's lives means we are dealing with concepts that are rich with multiple meanings. Through these meanings, discourse will emerge regarding the scientific paradigm of music, both music as culture and in a cultural context. That batu baruang stone chime music is a product of music as a culture; with all the concepts it offers. As a cultural context, it is related to aesthetic values as a formal object. J.O.I. Ihalau said that a concept is a symbol that is given a certain meaning (concept) for a certain event (object). (J.O.J. John. Ihalau, 2004: 27). Therefore, technically musically; palalu or pamulo (the one who starts), tongah (middle/act; which means second) and finish in the batu baruang performance; and jantan, paningkah, and pangawinan are concepts formed by symbols that are given meaning for certain objects.

This means that these musical concepts three or frameworks have philosophical value and work together to form a musical system to produce typical batu baruang pieces in the stone chime music at Luhak 50 Koto. Gilles Deleuze & Felix Guattari say that all concepts are connected to various problems without which the concept would be meaningless. A concept has an existence that involves relationships with various concepts that are located at the same level. (Deleuze, 2010: 18-20). The panyudahi

concept has a role in forming the typical batu baruang melody as stone chime music in Luhak 50 Koto Minangkabau.

These underlying philosophical meanings cannot be separated from the concepts that form a unity as the basis for creating a musical concept. Merriam (1964) in Andar et al; Harmonia (2017) says that overall, concepts are a framework for music that is regulated in society and is arena for people who think about what music is and what music should be like. (Sastra, Anwar, et al., 2017: 334). Technically, musically, it can be said that every musical system is based on a series of concepts that link music with wider societal activities, which serves to define and create a musical system as a living phenomenon among others (Sastra, Fulzi, et al., 2017: 334). As a concept, palalu, tongah and panyudahi are musical frameworks created by an artist or community who discovered or first gave rise to music in all its uniqueness.

Gunara (2017) states that in music there are unique ways that can be learned and inherited so that they are not lost. In this context, it can be emphasized that the palalu, tongah and panyudahi concepts are instrumentation designs to produce unique and specific games. This uniqueness can be passed down between generations to achieve sustainability. Musik Batu, written by Chairul Slamet and Johan (Resital, 2017), presents a design for stone chime music instrumentation with specific and distinctive playing techniques. Stone becomes an element and medium for expressing musical expressions in the form of musical works. All players play a role in a unified musical sense (Slamet & Djohan, 2017: 65). The unity of musical feeling formed from the concepts of palalu, tongah and panyudahi is tied to the theme of the songs they perform.

**Stone chime Music Performance: Art and Aesthetics**

The performance begins with a pamulo player with a rhythmic motif according to the theme of the song; through different rhythmic motifs, the tongah player begins to form the

framework of the song; panyudahi players with different rhythmic motifs also play a validating role in forming short melodies which are then called pieces. For professional players who already understand the theme of the song; palalu and tongah players can enter simultaneously. A performance of batu baraguang can be seen in the following picture.



Figure 7. Three players are demonstrating the piece Siamang Tagagau (Photo. Andar 2022)

Tagagau gibbons are a type of black monkey, which they live in groups of three to six animals, or more. In certain situations, they make sounds with which they respond to each other. When they sound together, they are mutually acting; they call the gibbon tagagau. The tagagau siamang was the inspiration for the creation of one of the batu baraguang pieces which they often perform it in ritual events.

Performance or performativity according to Schechner (2013) in Asril et al is real action, presenting the performance of what is desired; This act of performance is called performativity. (Asril et al., 2018: 9). Batu baraguang as stone chime music in its presentation is a true and factual performance, real action. Sunarto said that art and aesthetics are like parts of the eye, where art is an extrinsic element that is used as a material object and aesthetics is an intrinsic value as a formal study. (Sunarto, 2017: 103). Both provide the price of a creation and at the same time the value of a work . If 'art' (work) can accommodate ideas and beauty, then aesthetics

as 'value' gives strength in the form of spirit so that works of art are able to arouse the imagination of those who enjoy them.

Batu baraguang as a musical system exists as a necessary and aesthetically sufficient condition as intended by Muleder Eaton. Presence requires necessary conditions and sufficient conditions to show that something is an object, activity and aesthetic situation. Necessary conditions are conditions that must exist for something to exist. (Eaton, 2010: 7). This necessary and sufficient condition is evident in the concrete manifestation of the creation of three pairs of stone chime music, both stone chime as an aesthetic object - musical system, and as an aesthetic form. The three stone pairs come from six stone slabs as a tenet of necessary conditions that must exist to be recognized as existing. From a performance aspect the three pairs of stone chime music (palalu, tongah, and panyudahi) are sufficient conditions, requisite for creating the music, thus giving rise to various pieces in performance.

Batu baraguang can be seen as an art form and conforming the aesthetics of those conditions. Sufficient condition or context become also aesthetic benchmarks for talempong players to create various kinds of stone chime pieces. One could say that whatever situation one is in, a person's existence and their world, one needs to recognize and create perceptions and relationships in forming a network. The existence of a person and his or her world is tied to the web of conscious life in a relational system - in stone chime music performances there is a need for mutual understanding and understanding between them. Capra saw life as a system of living organisms formed from components arranged in a network pattern. (Capra, 2003: 123). Sufficient conditions form this kind of network pattern between palalu, tongah and panyudahi players.

Sufficient conditions induce the process of becoming, tied to a musical communication network with various components for playing stone chime music songs. Capra notes that musical communication resides in nonlinear

relationships and that communication networks can produce feedback loops. Here the concept of feedback is tied to network patterns. (Capra, 2003: 124). Sufficient conditions facilitate a network of reciprocal musical communication among the three talempong players - Palalu (P), Tongah (T), and Panyudahi (Pn) - to express their ability to play music aesthetically.

For Sumardjo, expression in art is expressing certain feelings in a happy atmosphere. Feelings are an individual's response to something outside themselves. This requires skill or technical mastery of the medium. (Sumardjo, 2000: 74). The expression in a batu baraguang performance is an implementation of the player's *raso* (as in the Hindu concept of *rasa*), musicality based on the theme in the song. Stone chime music pieces and *raso* (feeling) of musicality are always in a relational relationship in identifying and distinguishing one in the song from another song aesthetically. The musicality based on the song shows its form in expression when the player presents an interesting game. The strength and weakness of the performers' sense of musicality can be used as a basis for assessing the classification of aesthetic sense in stone chime music performances. The *raso* musicality of the batu baraguang player combines in *tigo raso* (three *rasas*) *guguah* (song) differently in the unity of *raso* – in musical consciousness. Anthony Giddens says that consciousness is equivalent to what might be called 'sensibility'. (Giddens, 2011: 54-55). Sensibility can certainly unite *raso* to achieve a level of virtuosity in the game of batu baraguang. Harjana said that all works of art in their core and final form of statement will lead to one goal, namely re-imagining the natural surroundings and re-interpreting what humans feel. (Hardjana, 1983: 50). Re-interpretation occurs when there is an interaction that touches *raso* (taste) with phenomena from the natural surroundings. These reinterpretations can appear in various artistic media, such as the songs played in the following stone chime music.

Siamang Tagagau is a sound impression that is captured when a Siamang – a type of monkey, makes its distinctive sound – people call it tagagau. This distinctive sound is usually followed by another Siamang, so there is a combination of three or four Siamang sounds acting together. The Siamang's vocal behavior became the philosophical basis for the creation of the Guguah Batu Talempong Siamang Tagagau.



Figure 8. Notation 2: Siamang Tagagau  
transcribed by Yon Hendri 08-05-2023. BPM  
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Visually, the intersection of the rhythmic motifs in the notes above – Palalu, Tongah, and Panyudahi – forms a short melody and expresses a song. This is in sync with the proverb *basilang wood in the stove in sinan api mangkonoyo iduik* (crossing wood in the stove there is fire, so it lives). The meaning of *basilang* is a form of recognition of differences. Musically, these differences can be seen through the rhythmic motifs of 3 (three) pairs of stone chime music. "Alive" is the result that is formed as a result of the intersection of playing stone chime music rhythm motifs. Musically, the meaning of these crosses (differences) describes the process of creating the batu baraguang pieces. Palalu firmly provides a theme through consistent punch motifs. Tongah accepted Palalu's invitation obediently and played under the supervision of talempong palalu, and then Panyudahi played his

role with the authority he had in the formation of the batu baraguang song guguah.

Guguah (song) Batu baraguang music is formed based on the musical interaction relationship of three rhythmic motifs of three pairs of batu baraguang that precede and follow it. The relationship in question can be divided into three flavors, namely the blow motif that has the feeling of starting the guguah batu is called palalu, the taste that provides the framework for the melody - act one - is called tengah or panigkah, and the taste that makes a guguah (song) complete is called panyudahi - act two . The three pairs of stones play harmoniously and in proportion which creates an impression; Minangkabau people call bagaluik (wrestling). Bagaluik is a musical impression felt by the audience based on the intensity of the rhythmic motif playing which creates an interesting impression; the virtuosity they present aesthetically is called bataun.

## CONCLUSION

Batu baraguang as a musical system consists of 6 (six) stone plates that can produce different sounds - a "tone system". Batu baraguang is played in pairs by three players with each player sounding two stones with a certain rhythmic motif. The combination of the three rhythmic motifs produces a short resultant melody typical of batu baraguang and the result forms a piece. Batu baraguang as a musical system and a musical system gives a sign that the ancestors of the Minangkabau people in the young stone age - Neolithic - already had awareness and knowledge about music.

Aesthetically, the concept of batu baraguang as stone chime music consists of palalu (B1 and B2), tengah (B3 and B4) and panyudahi (B5 and B6) as a manifestation of sufficient conditions. Each position is played by 1 (one) musician with a different rhythm motif. The necessary condition comes from six stone slabs, designated here as B1, B2, B3, B4, B5, and B6; Aesthetically, this is understood as a necessary

condition, a condition that must exist for the music to exist. In the performance, the sufficient conditions five rise to various kinds of stone chime music songs in the performance.

This study suggests that batu baraguang as one of the cultural sites left by the ancestors of the Minangkabau people from the Neolithic era in the Limapuluh Kota Regency needs to be explored by the younger generation. Batu baraguang as a musical culture has a musical system and a musical system that needs to be preserved. However, batu baraguang as a culture is a historical relic of the past and it is possible that it is related to similar traditions in Vietnam and Cambodia.

Considering the limitations of this study; The duration provided by the research scheme supporting institutions is short, so this research provides recommendations for further research. This research topic can be developed into a more in-depth and broader study. One example is the connection with similar cultures in Vietnam and Cambodia.

This research is a first step in realizing a theory regarding the aesthetic musical concept of batu baraguang. Applicants for the output of this study are art and culture observers and historians. However, the relevant and possible observers are music experts and academics from arts universities who have departments of music and cultural anthropology or antiquities studies. This research can be a reference for academics to study it. For this reason, it is best for the ISI Padangpanjang institution through the Central Inventory and Documentation Unit (Pusindok) to record and document the wealth of percussion music in various regions in Minangkabau. For readers who are academics and researchers who are interested in batu baraguang as stone chime music, you can consider this research as a fundamental supplement for further studies on batu baraguang as stone chime music. This study still needs to develop more comprehensive data as a solid foundation for conducting further research at the applied stage, in the form of stone chime music orchestration.

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