



Ethnoscience of Character Education Values in the Process of Making Banyumulek Pottery in Indonesia

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Abstract: Banyumulek pottery, as one of the cultural heritages, embodies educational values that have not yet been widely revealed. This study aims to identify and analyze the character education values embedded in the process of making Banyumulek pottery. The research employs a qualitative approach with data collection techniques consisting of observation, interviews, and literature study. Data analysis is conducted through reduction, presentation, and verification. Data validation is carried out using triangulation, namely by integrating the results of interviews, observations, and document analysis. The findings show that the process of making Banyumulek pottery reflects significant character education values, such as accuracy, adherence to belief, diligence, seriousness, discipline, perseverance, mutual respect, cooperation, and creativity. This research underscores the importance of preserving the Banyumulek pottery craft and offers insights into integrating traditional values into educational practice.

Keywords: Banyumulek village; Character education; Pottery-making process; Sasak local wisdom

Introduction

Character education can be understood as value-based education aimed at developing an individual's ability to discern what is good and what is bad, as well as to apply goodness in everyday life (Suryanto et al., 2023). Character education has become a national priority, leading to policy reforms for its integration into the education system (Peterson, 2020). It is increasingly recognized that character education must be further optimized (Murtadlo et al., 2024). It has also become a central concern in nurturing the younger generation to possess moral integrity and strong values (Syamsi & Tahar, 2021). In pursuing this goal, the emergence of character education rooted in local wisdom offers a promising solution (Ilham & Rahman, 2024), making it essential for local wisdom to be integrated into learning (Yanti et al., 2022).

Indonesia is one of the countries with a rich diversity of ethnic groups and cultures (Nashuddin, 2020; Setianingrum & Jumadi, 2023). The nation has

abundant local wisdom that has been preserved across generations, as it is believed to contain positive teachings (Arjaya et al., 2024; Trisnowati & Subali, 2023). Local wisdom needs to be strengthened, as it has proven effective in addressing various societal challenges, particularly in Indonesia (Rusdiana et al., 2024). However, the rapid flow of globalization and the development of science and technology today pose serious threats to the survival of local wisdom in Indonesia. Many traditions are increasingly neglected, even abandoned, and are at risk of extinction. Cultural traditions receive limited attention, especially within school-based learning (Wibowo & Susanto, 2025; Tohri et al., 2022). Moreover, the lack of attention and documentation concerning local wisdom may further contribute to its disappearance (Wae et al., 2024), one example being pottery (Triyanto et al., 2019). Traditional pottery has faced marginalization and is now approaching extinction (Triyanto et al., 2017).

Pottery has existed in Indonesia since the Neolithic period (Kasnowihardjo, 2017). The primary material for

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pottery is clay. Clay has plasticity when exposed to water and can become a solid, hard material once fired at high temperatures; thus, it has long been widely used for pottery making (Sundari & Erlangga, 2022).

As a form of handicraft, pottery represents both a way of thinking and creating that enables humans to shape and develop their character (Triyanto et al., 2019). Therefore, the creative act of making pottery strongly contributes to the formation of positive character traits.

The Sasak people of Lombok have inherited various cultural traditions from their ancestors (Wazni et al., 2023; Hikmawati et al., 2021), one of which is pottery craftsmanship found in Banyumulek Village, Lombok. The pottery is produced through semi-traditional methods, namely by directly processing clay and shaping it with the aid of a rotating tool. The clay is then air-dried to remove moisture from the raw material. The final stage is firing at approximately 800°C so that the pottery becomes durable and functional. Each stage requires particular care and attention to produce pottery of good quality. Many people assume that pottery should simply be made well so it can be sold quickly, without realizing that behind its production lies the immense dedication and effort of the artisans; efforts that have rarely been highlighted.

Pottery-making in Banyumulek Village has been practiced since 1859 and continues to this day. Its presence began with the community's need for household utensils as well as ceremonial or ritual equipment. The tradition traces back to 1859 with the arrival of Ida Wayan Tata, who was granted authority by the Karangasem Kingdom of Bali – then in power – to settle in Banyumulek Village (Muka et al., 2024).

In earlier times, ceramic and earthenware vessels were widely used for cooking and daily needs (Bertin et al., 2024). The traditional pottery produced by the Banyumulek community was initially intended to meet everyday necessities, such as *kemerasan*, a container for storing rice; *bong*, a water vessel; *prapen*, a brazier; *kekete*, a plate; *cangleng* – a cooking pot; *pendupan*, an incense holder; as well as various types of storage containers.

Pottery and ceramic works also serve as markers of a community's identity in relation to its sociocultural values (Pranoto et al., 2023; Triyanto et al., 2019). These products emerged alongside the needs of the village society, reflecting their sociocultural life. Thus, both their forms and functions constitute a representation of the community's cultural identity.

Banyumulek Village is a dynamic pottery center, rich in local wisdom. With its long history, pottery craft in Banyumulek has significantly contributed to the welfare of the local community, as it has successfully competed in export markets. However, today its preservation faces serious challenges due to the very

limited number of younger generations interested in pursuing or continuing this craft (Azwar et al., 2024).

Many aspects of local wisdom remain little known to the wider public (Chaijalearn et al., 2023). The younger generation in Lombok is often less familiar with their own local traditions and more attracted to external cultural influences (Aswasulasikin et al., 2020; Mashami et al., 2023). This includes the youth in Banyumulek Village, many of whom consider pottery craft to be outdated and unappealing. Such perceptions inevitably threaten the existence of pottery in the village. Meanwhile, this pottery tradition embodies numerous character education values that are highly important to preserve. Yet, the lack of research specifically exploring its educational potential risks further marginalizing the craft.

Banyumulek pottery possesses a unique production process that is deeply embedded with character education values, yet remains largely unexposed to the public. Therefore, this study aims to identify and analyze the character education values within the process of making Banyumulek pottery in Indonesia and to offer novelty by linking local craftsmanship with a modern educational framework, namely character education.

Method

This research employed a qualitative approach. The study was conducted from October 2024 to April 2025 in Banyumulek Village, the center of pottery craftsmanship, with the aim of addressing the research objectives. Data collection was carried out through relevant literature review, observation, and interviews. Interviews were conducted with Banyumulek pottery artisans, selected through purposive and snowball sampling. All informants had more than ten years of experience in pottery making and were native residents of Banyumulek Village. With such experience, they were considered to possess extensive knowledge of Banyumulek pottery, enabling them to provide credible insights aligned with the research objectives.

The interviews were conducted in a semi-structured manner. The questions posed to the artisans concerned the stages of pottery production and the character values they experienced at each stage of the process.

Data analysis involved reduction, data presentation, and verification. The validation of qualitative data was carried out through triangulation. Triangulation refers to the interrelationship of information obtained from data collected across multiple sources, thereby enhancing the reliability of the findings (Hayashi et al., 2019). In this study, triangulation was achieved by integrating the results of

interviews, observations, and document analysis. The interpretations derived from this process provide insights into the character education values embedded within the process of making Banyumulek pottery in Indonesia.

Result and Discussion

The Process of Making Banyumulek Pottery and Character Education Values

Preparation of Tools and Materials

The process of making pottery begins with the preparation of the necessary tools and materials. The tools include *rembagan*, *pengoahan*, *pemeretan*, *pengerikan*, *leladikan*, *penepung*, *sol*, and *batu lolet*. The materials required are clay, sand, and water. To produce pottery of good quality, artisans must exercise great accuracy in preparing these tools and materials. A lack of attention to detail can result in suboptimal quality, as explained by informant Sap: "Before making pottery, I first prepare all the tools and materials. The tools are *rembagan*, *pengoahan*, *pemeretan*, *pengerikan*, *leladikan*, and *batu lolet*. The materials needed are clay, sand, and water. I must be *pedasan* (careful and precise) in preparing these tools and materials so that there are no obstacles in the production process." (Interview, November 3, 2024).

Pottery making thus begins with ensuring that all tools and materials are available and ready for use. This requires accuracy. Yumesri (2024) defines accuracy as being meticulous and avoiding mistakes. To achieve pottery of high quality, artisans must be precise and avoid errors when preparing and using tools and materials. Neglecting this aspect can result in poor-quality products, which in turn disadvantages the artisans themselves. Accuracy is demonstrated by ensuring that every tool is functional and not damaged, and that all materials are available in sufficient quantities to meet the required production volume and design.

In addition to accuracy, artisans must also demonstrate patience and hard work in preparing the *bakalan*, the term used for clay that is ready to be shaped. As informant Sao explained: "The clay we take from Mount Ketejer cannot be used directly. It must first be processed. We soak the clay overnight, knead it, and then dry it under the sun. Once dry, we add water and knead it again until it becomes firm. This clay, ready for use, we call *bakalan*. We must be careful and work hard to prepare the *bakalan* so that it can be used properly." (Interview, November 2024).

The processing of clay into workable clay, locally referred to as *bakalan*, involves several stages: soaking it overnight, processing and drying, then soaking again while kneading and compacting until it is ready for use. Transforming clay into *bakalan* requires considerable skill and physical effort, as the work is carried out

traditionally. The artisans must handle the clay entirely by hand, which demands significant strength. No special equipment is used, since it is believed that doing so would compromise the quality of the final product. In addition to physical strength, artisans must also possess the skills necessary to process the clay properly in order to produce pottery of good quality.

Hard work, as Amos et al. (2019) note, is closely associated with a more detailed and conscientious approach to one's tasks. The manual techniques used in preparing *bakalan* as known as kneading, squeezing, pounding, and pressing the clay to achieve the right consistency—clearly reflect the artisans' dedication and hard work in ensuring the clay is of suitable quality for pottery production.



Figure 1. Clay being dried

In addition to hard work, patience is also essential, given the multiple stages involved. Patience is particularly needed in processing clay and water so that they become usable for pottery making. The clay taken from Mount Ketejer cannot be used immediately; it must first be filtered to remove impurities such as gravel and debris. Likewise, the sand must also be sifted beforehand. After this, artisans mix two parts clay with one part sand and add water as needed. This mixing is performed through techniques of kneading, pressing, and pounding. The greater the quantity of *bakalan* produced, the more time and energy are required to process it, thereby demanding a high degree of patience.

The next stage is drying the clay. Drying is carried out by placing small chunks of clay onto a sheet made from plastic or used sack material. Once all parts of the clay are completely dry, the drying process is stopped, and the clay is mixed again with water and kneaded until it is ready to be used for pottery production. The preparation of *bakalan* requires both courage and resilience, as it involves undergoing multiple stages of work. As stated by Komalasari et al. (2025), patience can be understood as an attitude of bravery and strength in facing challenges or difficulties.

Belanger/Bekejames

Before beginning the process of shaping clay into finished pottery, artisans traditionally engaged in an activity known as *belanger* or *bekejames*, which means self-purification. Informant Zdn explained: *"In the past, before making pottery, we performed an activity called bekejames or belanger. This practice began by wearing clean and proper clothing, often a kebaya, and applying oil to the hair. Our elders always carried out this ritual before starting to make pottery with the intention of cleansing or purifying themselves, so that the production process would run smoothly and yield good and blessed results."* (Interview, November 3, 2024).

Local wisdom is closely related to systems of belief (Triyanto et al., 2019). The ancestors of the Banyumulek community believed that before beginning the pottery-making process, one must first purify both body and mind. This was intended to ensure that the process proceeded without obstacles and resulted in pottery that was not only well-formed but also functional. As informant Nrd explained: *"Once all the tools and materials are ready, our ancestors practiced bekejames or belanger, meaning purification of the self. The purpose was to be in a state of cleanliness when making pottery. I use consecrated oil along with rice flour and three pis bolong (traditional coins) as a means of warding off misfortune and to ensure that the pottery can be completed properly."* (Interview, October 3, 2024).

Based on the activities described above, the character education value that emerges is obedience to belief, or religiosity, which is demonstrated through the conviction to purify oneself or to pray before beginning any activity or work. This practice is intended to ensure smoothness in the process and to produce pottery of good quality that can function properly. Such a tradition reflects the belief of the ancestors of Banyumulek Village that the act of making pottery is a sacred endeavor, as the object being created; pottery, is expected to carry blessings. In this context, blessings are understood as the ability to produce pottery that is both of high quality and functional according to its intended purpose. This suggests that pottery and ceramics can embody and sustain religious practices within everyday life (Jacknis, 2019).

Shaping the Clay

The next stage is shaping the prepared clay into various household products. At this stage, many positive character values can be observed, as expressed by several artisans. Artisan informant Sdh explained: *"When making pottery, I must be truly pacu (serious and earnest), meaning I cannot treat it as play. I also need to be ceket (nimble) in processing the clay, accurate and meticulous in forming the shape, and terpi (disciplined) so that the pottery can be finished according to the planned schedule without*

wasting time. Moreover, I will not make pottery forms that are improper or violate decency." (Interview, October 3, 2024). Another artisan, informant Rkyh, added: *"I must be patient and pasu-pasu (diligent and persistent) so that the pottery can be completed and its form perfected. On the other hand, I cannot be hasty or careless in the process, because then the results would certainly not be good. I am already accustomed to producing many different forms of pottery, so I no longer consciously pay attention to these attitudes as they have become habitual—but this is how it should be."* (Interview, December 15, 2024).

The stage of shaping clay into various pottery forms begins by taking *bakalan* (prepared clay) in the required amount, mixing it with water, kneading it until dense and pliable, then forming it into small balls before shaping them into the planned design. This process requires a range of positive character traits, foremost among them seriousness. Artisans must approach the task with seriousness and full concentration, as the final form of the pottery must match the intended design. If the form deviates, the pottery is considered a defective product.



Figure 2. Artisan working seriously and diligently in shaping pottery

The next character value is *pasu-pasu*, which means diligence and perseverance. This implies that artisans must be able to complete the pottery-making process properly. Thus, beyond seriousness, they must also be persistent and industrious in shaping the pottery to ensure precision, symmetry, and smooth surfaces. The *bakalan* clay is wet and heavy, and artisans must skillfully shape it into a variety of models and sizes. They must ensure that each part of the form is precise and neatly executed. A perfectly shaped vessel is the ultimate target of their work.

Discipline is also strongly evident in this stage, particularly in their careful management of time. Artisans meticulously calculate the time required to produce a specific model of pottery. This is closely tied to their marketing system; for instance, when fulfilling

orders, they must provide clear timeframes for completion. Discipline can be defined as the ability to keep promises (Arafah et al., 2024). Therefore, artisans must carefully plan their work in order to meet customer orders or achieve production targets within the expected time.

Hard work is equally essential in the shaping process. Artisans must be able to realize a perfectly formed vessel with a smooth surface. For example, they polish the surface of semi-dry pottery using coconut husk or *leladikan* (a traditional polishing tool) to achieve a fine finish.



Figure 3. Artisan working hard to smooth the surface of pottery

Most Banyumulek pottery is symmetrical, functional, and entirely handmade rather than machine-produced. In shaping it, artisans must demonstrate seriousness, diligence, perseverance, patience, and discipline so that the final form corresponds with the intended design. As Suhra (2023) asserts, any work undertaken with sincerity, persistence, and perseverance will yield results that are both efficient and excellent.

Pottery Firing Process

Once the pottery has been shaped, the next step is drying and firing at a specific temperature, typically around 800 °C. In Banyumulek, the firing process is still conducted traditionally using locally available materials such as firewood and straw. As explained by artisan informant Iny: “The firing stage begins with preparing a suitable location for the activity. We build the kiln in a traditional way: placing firewood at the base, arranging the pottery above it, and covering it with husks or dry straw. Then we light the fire until the pieces are thoroughly dry, and we know precisely when the firing should be concluded.” (Interview, October 7, 2024). Similarly, artisan informant Iyk described the communal nature of the process: “For the firing stage, I never work alone. We always do it together with other artisans. We practice *saleng betulung* (mutual

assistance), and of course, mutual respect.” (Interview, October 2024).

The practice of *gotong royong* (collective cooperation) strengthens solidarity within the community. Pottery firing is conducted collectively in designated locations. According to the Village Head of Banyumulek, the spirit of *gotong royong* remains deeply embedded in the community. The firing process nurtures strong social bonds, as reflected in behaviors of mutual assistance, mutual respect, discipline, and self-control. Mutual assistance and cooperation are indeed the hallmarks of *gotong royong* (Siradjuddin, 2023).

Almost every hamlet in Banyumulek has its own firing site. Firing is usually carried out during the day, and villagers do not complain about the smoke produced. This tolerance reflects their mutual respect for one another.

The traditional firing technique involves arranging pottery on the ground or floor, leaving about 10 cm of space between pieces. Firewood is placed on top and between the pottery, then covered with straw. The fire is maintained for about five hours. While this task can be performed individually, larger volumes of pottery or larger-sized vessels make the process physically demanding. Artisans must lift, arrange, and fire the pottery, which becomes significantly easier when done cooperatively. Through *saleng betulung* (mutual help), artisans share the workload, such as taking turns tending the fire to ensure that the temperature remains stable. In this cooperative process, important values must be upheld, such as mutual respect and self-control, meaning artisans should not become easily angered or offended by others, in order to maintain a harmonious atmosphere. Respectful language and courteous behavior are expected throughout.

As Allolinggi et al. (2020) emphasize, the values of solidarity, compassion, *gotong royong*, discipline, religious devotion, and mutual respect are crucial for preservation and intergenerational transmission. They must be instilled in younger generations from an early age.

Ornamentation Process

After the firing stage, the final step is ornamentation. This stage is optional, meaning it is carried out only when needed, since many pottery products prioritize functionality over decoration. The following excerpts illustrate the perspectives of artisans: Informant Ray stated: “If needed, I will add decorations to the surface of the pottery. These decorations can be applied through painting, engraving, collage, or other techniques depending on the order. Naturally, we need additional time and creativity to produce pottery that is appealing and favored by buyers. We can decorate surfaces with floral, leaf, geometric, or other motifs.” (Interview, April 2025).

Similarly, informant Sih noted: “I can apply ornamentation to the surface of pottery, whether through painting or other techniques. Of course, it is more difficult when we must create such decorations, as it requires extra thought. However, it is not a problem as long as we can fulfill existing orders.” (Interview, March 2025).

Creativity is understood as the capacity of an individual to generate new ideas (Widodo et al., 2025; Suwandi et al., 2025). Artisans need abundant ideas in order to produce new forms and ornaments. This process requires additional time, as artisans must

conceptualize and then realize the design of new forms or ornamentation. Sources of inspiration are often drawn from the surrounding environment—such as floral and leaf shapes—or from other references, including geometric or abstract motifs. These motifs must then be reinterpreted to achieve a visually appealing result that can attract buyers. The creative process involves various techniques, such as painting, engraving, and collage.

The following table presents the stages of the Banyumulek pottery-making process in relation to character education and Sasak local wisdom.

Table 1. The Process of Banyumulek Pottery-Making in Relation to Character Education and Sasak Local Wisdom

Production Stage	Sasak Local Wisdom	Character Education Values
Preparation of tools and materials <i>Bekejames / Belanger</i> (ritual self-purification)	<i>Pedasan</i> (accuracy), <i>sabar</i> (patience) <i>Patuh</i> (obedience)	Accuracy, diligence, carefulness, patience Obedience to religious beliefs
Preparing clay (<i>bakalan</i>)	<i>Pasu-pasu</i> (perseverance), <i>ceket</i> (dexterity), <i>tertîp</i> (discipline), <i>sabar</i> (patience), <i>patuh</i> (obedience)	Commitment/seriousness, perseverance, diligence, discipline, hard work, patience, consistency
Firing pottery	<i>Tertîp</i> (discipline), <i>saleng betulung</i> (mutual help), <i>saleng nerimaq</i> (mutual respect)	Discipline, hard work, mutual assistance, cooperation, respect, self-control
Ornamentation	<i>Kreatîp</i> (creativity), <i>pacu</i> (seriousness)	Creativity

Based on the description above, many positive aspects can be found in the process of Banyumulek pottery-making in Lombok. The artisans embody exemplary values such as accuracy, obedience or devotion to God Almighty, earnestness, perseverance, patience, responsibility, seriousness in their craft, mutual cooperation, and creativity.

Local wisdom values can be utilized as a medium for character formation (Baehr, 2017). Learning activities grounded in local wisdom can bring younger generations closer to their cultural heritage, customs, and traditions in their surrounding environment, while at the same time nurturing respect for cultural values and traditions (Zidny & Eilks, 2022).

The process of Banyumulek pottery-making can foster new awareness among younger generations, particularly regarding the importance of preserving their cultural heritage. The Banyumulek pottery craft must be maintained, further developed, and integrated into educational practices.

Conclusion

There are five stages in the process of Banyumulek pottery-making in Indonesia: preparation of tools and materials, *belanger* or *bekejames* (ritual self-purification), shaping the clay, firing the pottery, and ornamentation. Each stage reflects character education values: preparation of tools and materials emphasizes *pedasan* (accuracy and precision) and hard work; *bekejames* or *belanger* embodies obedience to belief (religiosity);

shaping the clay demonstrates *pacu* (earnestness and seriousness), *patut* (*propriety*), and *tertîp-terpi* (discipline); firing pottery reflects *saleng betulung* (mutual assistance) or communal cooperation and mutual respect; while ornamentation highlights creativity.

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Conflicts of Interest

The authors declare no conflict of interest related to this research.

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