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Traditional Ways of Caring for Historical Manuscripts in Lombok (Indonesia)

Traditionelle Methoden zur Pflege von Handschriften in Lombok (Indonesien)

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Abstract: This article discusses traditional ways of caring for historical palm leaf manuscripts (*takepan*) made from palm leaves (*lontar*) in the Lombok region, West Nusa Tenggara, Indonesia. Data were collected using interview and documentation methods. Ethnographic thematic analysis was chosen to describe the cultural characteristics of communities which foster a long tradition of caring for manuscripts. For this purpose, manuscript owners use a wide variety of local materials, including *komak* (*Lablab purpureus* (L.) Sweet), *kara* (*Canthium coromandelicum*), or *urang aring* (*Eclipta prostrata* (L.) L.) leaves, charcoal from coconut fiber, oil from lemongrass (*Cymbopogon citratus*), and candlenuts (*Aleurites moluccanus* (L.) Willd.), and used engine oil. Methods of caring for manuscripts using various natural materials have been practiced for a long time, demonstrating the ongoing appreciation for and relevance of *takepan* manuscripts.

Keywords: manuscript care; lontar manuscripts; disaster prone; collective memories; local wisdom

Zusammenfassung: Der vorliegende Beitrag befasst sich mit traditionellen Erhaltungsstrategien von historischen Palmblattmanuskripten (*takepan*), die aus Palmblättern (*lontar*) in der Region Lombok (West Nusa Tenggara, Indonesien) hergestellt

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werden. Das lokale Wissen wurde mittels Interviews und teilnehmender Beobachtung dokumentiert. Die ethnografische, thematische Analyse wurde gewählt, um die kulturellen Praktiken von Gemeinschaften zu beschreiben, die über eine lange Tradition in der Pflege von Manuskripten verfügen. Die Besitzerinnen und Besitzer von Manuskripten verwenden dabei eine Vielzahl lokaler Materialien, darunter Blätter von Komak (*Lablab purpureus* (L.) Sweet), Kara (*Canthium coromandelicum*) oder Urang aring (*Eclipta prostrata* (L.) L.), Kohle aus Kokosfasern, Öl aus Zitronengras (*Cymbopogon citratus*) und Kerzennüssen (*Aleurites moluccanus* (L.) Willd.) sowie gebrauchtes Motorenöl. Diese Materialien werden seit langem in der Pflege von Manuskripten eingesetzt und belegen die Wertschätzung, die Palmblattmanuskripten in lokalen Gemeinschaften in Indonesien entgegengebracht wird.

Schlüsselwörter: Erhaltungsstrategien für Palmblattmanuskripte; Lontar-Manuskripte; Naturkatastrophen; kollektive Erinnerungen; traditionelles Wissen

1 Introduction

The island of Lombok is one of the eastern regions of the Indonesia archipelago and houses over 1,000 historical manuscripts owned by the local museum (NTB Museum, 2020). These manuscripts were written by religious leaders or scholars and describe various aspects of life such as science, law, religion, literature, customs, pharmacology, prophecies, and travel records. They have high historical, cultural, and philological value and are a primary source for understanding a society's past, which enables an understanding of its present and future (Behrend 1998; Ikram 1997; Teeuw 1998). Portraying every-day life of the time when the manuscripts were created (Jamaluddin 2005), they document the Sasak civilization during the era of the Islamic kingdom in Lombok.

The large number of manuscripts found in Lombok indicates that the written tradition has been well-developed since the Sasak people became familiar with writing. Manuscripts are written in Sasak script or *Jejawan*, Arabic, Balinese, and Bugis, and languages include old Javanese, Sanskrit, Javanese, Sasak, Balinese, Arabic, and Malay. A wide variety of materials were used to create them, including European paper, palm leaves, daluang, bark, and bamboo. The well-developed writing tradition in the Sasak community is connected with efforts undertaken by the community to preserve the manuscripts they own.

Law Number 5 from 1992 defines manuscripts older than 50 years as cultural heritage of high historical and cultural value. Law Number 5 from 2017 expressly states that manuscripts are important for the advancement of culture and measures have to be taken for their preservation, especially if they are kept in disaster-prone

areas. Manuscripts have been damaged or destroyed by natural disasters in Indonesia in the past, e.g., the tsunami in Nanggroe Aceh Darussalam on December 26, 2004, or the earthquake in West Sumatra on September 30, 2009. Hundreds of historical manuscripts have been destroyed during these events. Today, owners are very well aware of the importance of their manuscripts and the need to protect, maintain, and care for them (Amin 2011; Hendrawati 2018). People in Lombok are known as a community that is active in caring for historical manuscripts which are kept in villages throughout the island.

Traditional ways for copying manuscripts in Lombok are *takepan*, paper thread binding, and animal skin thread binding. *Takepan* manuscripts are made of *lontar* leaves (palm leaves) which are tied with a rope made of sugar palm bark in the middle. Paper thread binding is a way of binding manuscripts by sewing manuscript sheets with thread made from spun cotton. Animal skin thread bindings are made of cow or ox skin that are tanned and dried in the sun. For *takepan*, dried and cut *lontar* (*Borassus flabellifer*, Palmae Family) leaves are used. This technique is more complicated with paper yarn binding which uses materials from outside Lombok. According to local scribes, processing *lontar* leaves takes four months and involves various steps determined by custom, starting from the time of picking, the number of leaves picked, and the drying method. The picking time itself is set by the local leader based on the Rowot Sasak Calendar.

Traditional measures for the care of historical manuscripts are simpler than modern preservation measures as established in Indonesian museums. The ingredients used are *komak* (*Lablab purpureus* (L.) Sweet) leaves, *upak jaran* (*Eclipta prostrata*) leaves, lemongrass (*Cymbopogon citratus*) leaves, dried coconut fiber, charcoal, candlenuts (*Aleurites moluccanus* (L.) Willd.), and used engine oil. All these materials are obtained from gardens, forests, and the environment around the villages and are prepared by various groups using different techniques. People in Bayan, North Lombok mix roasted coconut fibers with squeezed *komak* leaves. Evidence of possible antioxidant and anti-fungal properties has also been found in various plants used for palm leaf manuscripts preservation (Rahman and Akhter 2018).

In Sade, Central Lombok slices of *komak* leaves are mixed with rice water. The presence of *komak* leaves in mixtures used for caring for palm leaf manuscripts is specific for Lombok. In contrast, people in Situ Kabuyutan, Ciburuy, West Java clean palm leaf manuscripts by burning incense and coconut fibers and blowing the smoke on the manuscript sheets (Aghisni, Agustini, and Saefudin 2022). The custodians of palm leaf manuscripts in Surakarta, Central Java care for the manuscripts by rubbing them with lemon grass oil and candlenut powder (Rachman 2018). People in Singaraja, Bali, clean manuscript pages using alcohol and hazelnut charcoal (Narendra 2021). In Gapura, Central Lombok lemon grass leaves are mixed with used oil. In Sakra, *upak jaran* leaves are ground and rubbed on the palm leaves.

2 Literature Review

There has been little research on traditional manuscript care in Indonesia. Rachman (2017) describes traditional conservation methods carried out in the Rekso Pustoko Library at Mangkunegaran Palace in Surakarta Province, Indonesia. Library employees still use traditional materials including vetiver, frankincense, and lemongrass. Zhang et al. (2022) discusses traditional preservation methods for palm leaf manuscripts in Potala Palace in Tibet, China, focussing on the types of damage. Zakiyyah et al. (2022) studied the preservation of historical manuscripts on paper in Indonesia mainly focussing on digitization. Digital reproductions of historical manuscript are accessible online. Narendra (2021) describes preservation measures for manuscripts of the Lontar collection at the Gedong Kirtya Lontar Museum which include (1) storage in Kropak wooden boxes to prevent damage by wood-eating animals. The Kropak boxes are stored in special cabinets which are filled with Naphthaline or camphor and equipped with silica gel to keep RH stable at ca. 45–55 %, (2) regulation of temperature to 24 °C in tropical areas and 20 °C in cooler climates, (3) protection from sunlight, and (4) cleaning manuscripts with chemicals which prevent script from fading. Christiani (2020) focusses on the preservation of documents belonging to Mangkunegaran at Rekso Pustaka. Measures include the application of cloves as insect and rodent repellents. Additionally, Japanese tissue is inserted between the pages of manuscripts.

3 Objectives of the Study

This article provides information about the various traditional methods and strategies developed by communities in the Lombok region for caring and preserving *takepan* manuscripts they own, using local materials. This knowledge has never been documented before. The methods described in this contribution do not confirm to standard preservation methods and have not been studied scientifically. They are not to be understood as a recommendation for treating historical palm leaf manuscripts, but rather as a record of local traditions which may also inform caretakers of manuscript collections about possible earlier treatments of their collected items.

By documenting local knowledge and wisdom about how to care for and protect manuscripts in disaster-prone areas from damage, it is hoped that a model of manuscript preservation strategy in vulnerable areas can be obtained.

4 Methods

This research focuses on local knowledge of strategies for manuscript care carried out by manuscript owners in Central Lombok District, East Lombok District, and North Lombok District, West Nusa Tenggara Province. It is a qualitative-descriptive approach (Creswell and Zhang 2009).

The evaluation is based on the interpretive method with meanings and interpretations as their two distinguishing characteristics. The term “meaning” describes how actors interpret their experience or come to terms with their day-to-day lives. The term “interpretation” involves the act of deriving meaning or drawing conclusions about occurrences within an organization. Scholars emphasize on how these accounts come together, align in specific ways, and become collective, while these techniques focus on the subjective accounts of actors (Putnam 1983). Interpretive researchers usually concentrate on providing detailed accounts or accurate portrayals of organizational events from the perspective of those involved (Geertz 1973). In this study, data was collected using unstructured interviews with manuscript owners, scribes, as well as local and religious leaders who oversee caring for historical manuscripts. Interviews took place from April to May 2024 and were recorded or documented in writing. To complement information obtained from interviews, involved observations were carried out during the ritual cleaning of historical manuscripts. Interviews were analysed post-recording and transcription. In the interpretive approach, the researcher values the roles of owners and scribes of manuscripts in interpreting manuscript information and understanding historical relationships.

5 Results

5.1 Overview over Materials Used for Manuscript Care

Two main strategies for the care of manuscripts can be distinguished. The first strategy concerns traditional ways of dealing with natural disasters which will happen again at times that cannot be predicted in advance. However, the owners of the ancient texts created a way to prevent the massive impact of disasters on society. This method is related to the rule of not to build houses in the path where materials for cleaning ancient manuscripts grow. For example, *Upak Jaran* (*E. prostrata*) grows a lot in coastal areas that are prone to earthquakes. Not building settlements in these areas is a traditional way of respecting plants in Lombok and to prevent major impact of earthquake on society.

The second strategy to care for manuscripts concerns preservation of manuscripts which is not limited to the physical aspects of the manuscript, but also covers the information contained in the manuscript (Latiar 2018: 77). According to Rajan and Esmail (2021), there are internal and external factors causing damage to manuscripts. Thus, preservation entails a series of methods that aim to protect manuscripts against physical damage so that they last longer, and their content remains accessible (Pramana 2022; Rahmawati and Wahdah 2019).

The use of plants such as *komak*, *pupak gagak* (*Amorphophallus konjac*), *urang aring* (*Eclipta prostrata*), and candlenut leaves for preservation measures is typical for the Lombok region. These plants have been grown and cultivated by the people of Lombok for generations. This aspect of local wisdom is related to the close relationship between humans and nature in the spirituality of the Lombok people (Quddus et al. 2024).

Komak leaves are planted by the community as a vegetable together with corn (Ihsan 2017). They produce a bright green liquid which serves as a natural dye (Maulidan et al. 2022) and improves the visibility of the characters incised into the palm leaves with a *lontar* or pangot writers' knife. *Komak* leaves contain antibacterial and anti-fungal properties which protect the palm leaves (Peix et al. 2014). Sometimes charcoal from coconut fiber is mixed into the green liquid to further improve the readability of the letters. *Pupak gagak* leaves are squeezed until they release a blackish-green liquid which is then applied to the surface of the palm leaves. The liquid has an active ingredient that turns the incised letters of the writing black (Yu et al. 2020). In addition, cheap and easily accessible traditional materials such as cloves and camphor are used as insect repellents which also protect manuscripts from being damaged by other animals.

5.2 Traditional Care of Manuscripts in the Sasak Indigenous Community, Lombok

The earthquake that shook the island of Lombok in July 2018 had a magnitude of 6.4 on the Richter scale (SR) and continued into August 2018 with a magnitude of 7.0 on the SR. This powerful earthquake not only destroyed infrastructure but also caused the damage of historical manuscripts. After the large earthquake, several traditional rituals related to disaster mitigation were carried out by the Lombok people, especially those in Bayan, North Lombok, and Sembalun, East Lombok.

- (1) Planting palm leaf trees in Bayan, North Lombok. This tree planting was carried out by the Bayan people on the earthquake fault line which they knew about from their grandfathers. In this condition, the Bayan indigenous people perceived the earthquake as a warning addressed towards Sasak people who no

longer respect traditional spiritual values. These values are related to the tradition of planting trees for rituals, especially rituals for cleaning ancient manuscripts. According to them, the area where the trees are planted is included in the Customary Forest where building is prohibited for the Bayan community (Tramdheni, Suana, and Sukenti 2023). Besides being important as a form of preventing the impact of earthquakes, these values that connect human entities with nature and God have been written down from generation to generation in the Lontar script and are orally passed on in various rituals, e.g., *nyembek* (giving thanks ritual). Approximately one year after the earthquake, traditional leaders in Bayan agreed to ban people from outside Bayan to enter the mosque and the house where traditional objects were stored – including palm leaf manuscripts – and decided to plant palm trees. Planting of palm trees aims at providing palm leaf writing materials for people outside Bayan who want to see and know the *lontar* texts in Bayan. A mixture of *komak* leaves, roasted candlenuts, and incense were used for ritual cleaning of the manuscripts' surface. *Komak* leaves are picked on a predetermined day based on the *Rowot* calendar by the traditional leaders and *takepan* guards in Bayan. Crushed *komak* leaves are then mixed with roasted candlenuts or charcoal from coconut shells. This mixture of ingredients is then spread on the *takepan* sheets.

- (2) Giving Thanks to the Mountain (*nyembek gunung*) and Gathering and Dancing (*ngayu-ngayu*) in Sembalun, East Lombok. Before the big earthquake, the Sembalun people performed *ngayu-ngayu* in two places. When the earthquake occurred, people in Sembalun Bumbung linked this to the earthquake and from that date performed the *ngayu-ngayu* ritual in one place only with water from nine wells (Raudloh et al. 2022). This ritual has been returned to its original form to protect the earthquake path on Mount Rinjani from tourism disturbances. The *nyembek gunung* ritual is carried out by traditional leaders and several community representatives who climb the mountain carrying an old manuscript, water from nine sacred wells and various traditional equipment. After reciting the spell, the manuscript along with the traditional utensils is placed next to the water, incense, *Upak Jaran*, and Sirih leaves.

5.3 Traditional Care of Manuscripts in West Bayan, Bayan Village, North Lombok

Rituals involving palm leaf manuscripts in Bayan village are usually carried out during *begawe beleq*. This event is held once every eight years in every village in the Bayan area. During *begawe beleq*, a manuscript reader (*pemaca*) opens a palm leaf

manuscript, and its leaves are washed with water taken from a spring in the Bayan area which had been collected in a bowl called *tambang* (Figure 1) used only for special occasions. The washing of the palm leaf manuscript is performed from 5 to 8 p.m.

The washing of palm leaf manuscripts is also part of life cycle rituals as, for example, the ritual of circumcision or *kurisan* (shaving the baby's hair). During such rituals, the palm leaf manuscript is opened and washed with water that has been prepared in a special bowl. Manuscript washing may involve the entire palm leaf manuscript or certain parts which are needed in the ritual. The water used to wash the palm leaf manuscripts will then be dropped on the hair or face of the child. After the washing ritual, the manuscript dries in the sun in the air for approximately one week. Once the sheets are dry enough, they are wrapped in white cloth and stored in a traditional house called *bale beleq*.

Palm leaf manuscripts may be replaced when they are damaged, as reported by Mr. Raden Kertayadi, aged 56 years, located in West Bayan Hamlet, Bayan Village on Wednesday on May, 1st, 2024:

Caring for ancient manuscripts is an important part of the lives of the Bayan people. The teaching about life and the stages in which humans recognize their identity is summarized quite well in the sequence of verses in the ancient manuscripts. Because of this, the process of caring for ancient manuscripts involves the activities of concocting leaves and water as well as rewriting ancient manuscripts. Leaf and water are symbols of life on earth. Meanwhile, the tradition of writing ancient texts is a symbol of the human mind.



Figure 1: Tambang bowl for the collection of water taken from a spring in the Bayan area for the during *begawe beleq* ritual.

5.4 Traditional Care of Manuscripts in Pada Mangku, Bayan Village, North Lombok

In Pada Mangku, Bayan village, local natural materials, specifically *komak* leaves (Figure 2) are used for the care of manuscripts. Usually, an odd number of leaves (7 or 9) are picked. These rules are set by the *takepan* guard. After mixing and squeezing with water, the leaves are crushed and mixed with charcoal from burnt coconut fiber (Figure 3). The paste is then stirred before being rubbed onto the palm leaves. The charcoal settles in the incised areas of the writing and makes the letters clearly visible. This process was reported by Mr. Sumirat, aged 55 years, located in West Bayan Hamlet, Bayan Village on Wednesday on May 1st, 2024.

5.5 Traditional Care of Manuscripts in Sakra Village, East Lombok

Every year in January, rituals involving palm leaf manuscripts are performed in Sakra village, Central Lombok, by the manuscript owners of the region. The ritual cleaning of manuscripts is also carried out when manuscripts are to be read during religious ceremonies. Candlenuts (Figure 4) and *pupak gagak* leaves are used in these



Figure 2: *Komak* leaves collected for the care of manuscripts.



Figure 3: Charcoal from burnt coconut fibers.



Figure 4: Candlenut (*kemiri*) prior to charring for ritual manuscript treatment.

rituals. After charring the candlenuts, the charcoal is applied to the whole surface of the writing area of the palm leaves.

Palm leaf manuscripts are also treated with *pupak gagak* leaves (Figure 5) which are squeezed until they release liquid which is then applied to the surface of the palm leaves. The liquid turns the incised letters of the writing black so that the writing becomes clearer and easier to read, as reported by Mr. Mamiq Jap during an interview in Bayan Village, West Lombok on Friday May 3rd, 2024.

5.6 Traditional Care of Manuscripts in Gapura Village, Central Lombok

In the village of Gapura, the tradition of copying manuscripts using palm leaves continues. The copying of manuscripts was pioneered by Mr. Wirasentana and



Figure 5: *Pupak gagak* leaves which are squeezed to obtain a liquid for application on the surface of the palm leaves.

maintained because of the increasing scarcity of readers and writers of ancient manuscripts. After the 2018 earthquake, he founded studios for writing *lontar* manuscripts. In the process of creating *lontar* manuscripts, Mr. Wirasentana uses *lontar* leaves which are obtained from *lontar* trees (*B. flabellifer*) in the village. The leaves are selected from the four midrib leaves on the top of the tree which are still in bud. The leaves must be old, otherwise they will be too transparent for writing. After picking, the palm leaves dry in the sun for a day. Drying palm leaves for too long causes them to shrivel and tear. The dry palm leaves are then cut into the desired size and are pressed between two palm leaf fronds which are tied at the end of the midrib with sugar palm skin as a rope. After that, this package is tied up tightly in the *takepan* for about a month. They are ready for use after 2–3 months. Before writing, the wrinkled edges of the palm leaves are cut using a cutter and ruler. The neatly trimmed leaves are then perforated in three places to insert the thread used to string the palm leaves together.

Characters are incised with a sharp tool, and a mixture of lemongrass and charcoal from candlenut is applied to make the writing clearly visible. This paste is also used as an insect repellent and the candlenut charcoal removes streaks of ink which can be caused by humid air. Then each dry palm leaf is cleaned with a cloth and sometimes rubbed with citronella oil which again serves as an insect repellent. Sometimes, used engine oil is used for this process which renders the palm leaves more durable and flexible and prevents damage by termites. Palm leaves are dipped into used engine oil, drained, and aired. Brittle palm leaves will regain their physical strength. The thicker the used oil, the better because the concentrated used oil will accentuate the writing on the palm leaves clearer. This method has been used for almost 50 years; the oil is easy to find and renders the leaves more flexible. This effect was not found in *komak* and *pupak gagak* leaves. Used oil is often mixed with candlenut oil and lemongrass oil. Candlenut oil is obtained by crushing burnt candlenuts, and lemongrass oil adds a fragrant aroma to the palm leaves, as reported by Mr. Wirasentana in Gapura Village, Central Lombok on Saturday May, 4th, 2024.

5.7 Traditional Care of Manuscripts in Sade Village, Central Lombok

After the creation of a manuscript, liquid from crushed *komak* leaf or burnt candlenuts is applied to make the writing more visible. Subsequently, the manuscript is treated with used engine oil which renders the palm leaves more flexible and protects them from mold and small insects, as reported by Mr. Amaq Wanah (or Ngembul), Sade Village on Tuesday, May 7, 2024. In this context, manuscript maintenance is carried out to maintain the physical form of the manuscript and protect the information contained in the manuscript sheets.

6 Conclusions

Until today, Lombok people use different traditional methods to care for their palm leaf manuscripts with the aim of preserving them. These methods involve natural ingredients that are found in the immediate environment, such as *komak* and *pupak gagak* leaves which have anti-bacterial and anti-fungal properties and can prevent manuscripts from being damaged by insects or mould. Thus, Lombok people's traditional approaches to manuscript preservation can be used as an alternative to save manuscripts from damage. Additionally, in some communities used engine oil mixed with lemon grass oil, charcoal from coconut fibers, and candlenut oil may be applied. In this article, the author provides detailed documentation of traditional ways of caring for palm leaf manuscripts used by the Lombok community.

References

- Aghisni, S. S., N. Agustini, and E. Saefudin. 2022. "Kegiatan Preservasi Preventif Naskah Kuno Berbasis Kearifan Lokal: Studi Kasus Tentang Preservasi Preventif Naskah Kuno Berbasis Kearifan Lokal Di Situs Kabuyutan Ciburuy Kabupaten Garut." *Nautical: Jurnal Ilmiah Multidisiplin Indonesia* 1 (5): 400–7.
- Amin, Faizal. 2011. Preservasi Naskah Klasik. *Jurnal Khatulistiwa* 1 (1). 89–100.
- Behrend, T. E., eds. 1998. *Katalog induk naskah-naskah Nusantara, jilid 4: Perpustakaan Nasional Republik Indonesia* (Catalogue of Indonesian manuscripts, volume 4: National Library of the Republic of Indonesia). Jakarta: Yayasan Obor Indonesia and École française d'Extrême-Orient.
- Christiani, Lydia. 2020. "Preservasi, Konservasi dan Restorasi Dokumen di Rekso Pustaka." *Jurnal Anuva* 4 (3): 371–82.
- Creswell, J. W., and W. Zhang. 2009. "The Application of Mixed Methods Designs to Trauma Research." *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies* 22 (6): 612–21.
- Geertz, C. 1973. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.
- Hendrawati, Tuty. 2018. "Digitalisasi Manuskrip Nusantara Sebagai Pelestari Intelektual Leluhur Bangsa." *Jurnal Media Pustakawan* 25 (4): 24–32.
- Ihsan. 2017. Manfaat Dan Khasiat Komak Bagi Kesehatan. <https://ragammanfaattanaman.blogspot.com/2017/06/manfaat-dan-khasiat-komak-bagi-kesehatan.html> (accessed August 1, 2024).
- Ikram, Achadiati. 1997. *Filologia Nusantara*. Jakarta: Pustaka Jaya.
- Jamaluddin. 2005. "Sejarah Tradisi Tulis Dalam Masyarakat Sasak Lombo." *Jurnal Ulumuna* IX (2), Edisi 16. <https://ulumuna.or.id/index.php/ujis/article/view/84/74>.
- Latiar, Hadira. 2018. "Preservasi Naskah Kuno Sebagai Upaya Pelestarian Budaya Bangsa." *Jurnal Al-Kuttab* 5 (1): 67–83.
- Maulidan, Y., S. Sukiman, K. Sukenti, N. I. Julisaniah, and R. Kurnianingsih. 2022. "Study of Habitat Characteristic and Ethnobotanical Aspects of Komak Beans (Fabaceae) in North Lombok Regency." *Jurnal Biologi Tropis* 22 (4): 1347–60.
- Narendra, A. P. 2021. "Preservation and Conservation of Lontar Gedong Kirtya Lieftrinck-Van Der Tuuk Singaraja Bali." *Record and Library Journal* 7 (1): 28–39.

- Peix, A., M. H. Ramírez-Bahena, E. Velázquez, and E. J. Bedmar. 2014. "Bacterial Associations with Legumes." *Critical Reviews in Plant Sciences* 34 (1–3): 17–42.
- Pramana, Wahyu Dian. 2022. Strategi pelestarian naskah kuno di Dinas Perpustakaan dan Kearsipan Provinsi Jawa Timur. *Jurnal Daluang* 2 (2): 31–41.
- Putnam, Linda. 1983. "The Interpretive Perspective: An Alternative to Functionalism." In *Communication and Organizations: An Interpretive Approach*, edited by M. E. Pacanowsky, and L. L. Putnam, 31–54. Newbury Park: Sage.
- Quddus, Abdul, Lalu Muhammad Ariadi, Sigit Wahyudi, Nurmaidah, and Ika Juhriati. 2024. "Environmental Theology and Worship Teaching of Lombok Wetu Telu Old Manuscripts." *AL-IHKAM: Jurnal Hukum & Pranata Sosial* 19 (1): 249–70.
- Rachman, Yeni Budi. 2017. "The Use of Traditional Conservation Methods in the Preservation of Ancient Manuscripts: A Case Study from Indonesia." *Journal of Preservation, Digital Technology & Culture* 46 (3): 109–15.
- Rachman, Yeni Budi. 2018. "Palm Leaf Manuscripts from Royal Surakarta, Indonesia: Deterioration Phenomena and Care Practices." *Restaurator. International Journal for the Preservation of Library and Archival Material* 39 (4): 235–47.
- Rahman, S. A., and M. S. Akhter. 2018. "Antibacterial and Cytotoxic Activity of Seeds of White Hyacinth Bean (*Lablab Purpureus* L. Sweet 'White')." *Journal of Advanced Biotechnology and Experimental Therapeutics* 1 (2): 49–54.
- Rahmawati, Laila, and dan Siti Wahdah. 2019. *Preservasi Naskah Kuno (Manuskrip) Kalimantan Selatan*. Banjarmasin: Antasari Press.
- Rajan, Sarita S., and S. Mohamed Esmail. 2021. "Manuscript: Preservation in the Digital Age." *Lincoln. Library Philosophy and Practice*. <https://www.proquest.com/scholarly-journals/manuscripts-preservation-digital-age/docview/2506600229/se-2>.
- Raudloh, St., L. E. Husnan, M. Shubhi, and Syaiful. Bahri. 2022. "Ngayu-Ayu Ritual Practice of Sasak Ethnic: Ethnolinguistic Perspective." In *Proceedings of the 12th Annual International Conference 2022 (the 12th AIC 2022)*, 40–8. Banda Aceh: Universitas Syiah Kuala.
- Teeuw, A. 1998. *Sastra dan Ilmu Sastra: Pengantar Teori Sastra*. Jakarta: Pustaka Jaya.
- Tramdheni, A. F., I. W. Suana, and K. Sukenti. 2023. "The Wisdom of the Bayan Indigenous Community in Conserving the Traditional Forest in North Lombok, Indonesia." *Jurnal Biologi Tropis* 23 (4): 700–705. <https://10.29303/jbt.v23i4.5657>.
- Zhang, M., X. Song, J. Wang, and X. Lyu. 2022. "Preservation Characteristics and Restoration Core Technology of Palm Leaf Manuscripts in Potala Palace." *Archival Science* 22: 501–19.
- Yu, Shu-Juan, Jin-Hai Yu, Fei He, Jie Bao, Jun-Sheng Zhang, Yin-Yin Wang, and Hua Zhang. 2020. "New Antibacterial Thiophenes from *Eclipta Prostrata*." *Fitoterapia* 142: 1–4.
- Zakiyyah, Fina Nurul, Ninis Agustini Damayanti, Ute Lies Khodijah, and Lutfi Khoerunnisa. 2022. *Preservasi Naskah Kuno Pada Yayasan Sastra Lestari Berbasis Digital*. *Jurnal Al-Kuttab* 4 (2): 1–12.