

Woman Education Texts from Surakarta and Yogyakarta Palace

Yusro Edy Nugroho¹, Teguh Supriyanto², Fathur Rokhman³, Hari Bakti Mardikantoro⁴

Abstract---The Javanese Palace was a big community of Islamic Mataram dynasty where teaching texts for Javanese women in the 19th century AD have developed. Several texts regarding the education for Javanese women are currently recorded as historical documents that can serve as references or materials to reveal the background of their paradigm and behavior in the present day. This study focused on the inventory efforts of Javanese manuscripts about teaching for women sourced from texts produced in Surakarta Sunanate, Yogyakarta Sultanate, Mangkunegaran Duchy, and Pakualaman Duchy. However, this study did not only attempt to look for the origin of the texts and publish their editions but also resulted in the distribution portrait of the manuscripts that contained woman education in the form of *serat piwulang*. A philological approach was employed in this study, in which the data collection technique involved the catalog study. The collected data were manuscripts of *piwulang* (teaching) for women sourced from some libraries in Indonesia, namely Sonobudoyo library in Yogyakarta, Faculty of Letters library of Universitas Indonesia, Yogyakarta Language Center library, and National Library of Indonesia in Jakarta. The results of this study were manuscripts regarding woman education in the 19th century spread over several libraries in Indonesia. Those also included manuscript collections owned by four Javanese Palaces, including Surakarta Sunanate, Yogyakarta Sultanate, Mangkunegaran Duchy, and Pura Pakualaman Duchy. Many *serat piwulang* texts comprising teaching for women included *Serat Wulang Putri Nyi Adisara*, *Serat Darmaduhita*, *Serat Darmarini*, *Serat Warayagnya*, *Serat Menak Cina*, *Serat Panji Jayengsari*, *Serat Candrarini*, *Serat Wulang Estri PB IX*, *Serat Wulang Wanita*, and *Piwulang Putra-Putri Bab Palakrama*. These manuscripts used to be copied and distributed to married princesses who lived in other places. The marriage of the princesses was usually related to politics for establishing a harmonious relationship among authorities in the hierarchy of in-laws and son/daughter-in-law, vice versa.

Keywords--- philology, manuscript inventory, Javanese palace, *piwulang putri*.

I. Introduction

As the center of Javanese culture, Surakarta Palace and Yogyakarta Palace have become two of four palaces that still exist today. The four palaces include Yogyakarta Sultanate, Pura Pakualaman, Surakarta Sunanate, and Pura Mangkunegaran. Before the Independence Day, these palaces did not only serve as the center of culture and literary activities but also as the administrative capital. The Javanese Palace was initially a big community of Islamic Mataram dynasty where *piwulang putri* texts have developed (Hughes-Freeland, 1991).

The existence of the four Javanese palaces is explained as follows. The first palace is Surakarta Hadiningrat Palace that was built in 1743 and inaugurated on February 17, 1745. This palace was moved from the former palace located in Kartasura that was destroyed after a revolt. Previously, Kartasura Hadiningrat was the administrative capital

¹ Universitas Negeri Semarang, Semarang, Indonesia

² Universitas Negeri Semarang, Semarang, Indonesia

³ Universitas Negeri Semarang, Semarang, Indonesia

⁴ Universitas Negeri Semarang, Semarang, Indonesia

and place of Mataram Kings, which was established by the order of Amangkurat II (1677-1703). Due to the revolt towards Plered (1674), Kartasura Palace was in ruin, so that the King decided to establish a new palace in Sala village, or currently known as the city of Solo (Hakim et al., 2015; Rahayu et al., 2020).

The second one is Yogyakarta Palace that was historically established by opening forest (*babad alas*) in Pabringan. This palace was established by Prince Mangkubumi, who later became Sultan Hamengkubuwana I in 1756. The city of Yogyakarta was established after the incident of *palihan negari* as a result of the Treaty of Giyanti. This treaty was then followed by a summit between the Sultan of Yogyakarta and Sunan of Surakarta in Lebak, Jatisari, on February 15, 1755 that conferred the cultural basis for each kingdom. The agreement that was called the Jatisari Treaty took into consideration the identity differences of both kingdoms, including dress code, custom, language, dance, gamelan, and the like. The core of this treaty was that Sultan Hamengku Buwono I decided to remain the old habit of Mataram culture. Meanwhile, Sunan Pakubuwono III approved to modify or generate new forms of culture. The Jatisari conference had become the early point of different cultural developments between Yogyakarta and Surakarta (Aryanti, 2017; Hughes-Freeland, 1991).

As a social entity, the Javanese Palace is a community that has its own culture. Besides, an interaction occurs individually and collectively. The King and his whole family, courtiers, soldiers, and *abdi dalem* live an aristocratic life and apply rules, etiquettes, manners, ethics, and social relations socialized to all members of communities, both verbally and in writing. Literary works serve as the media that carry ethical messages in the palace community, which are delivered aesthetically. At that time, literary works functioned as a tool to legitimize an administration and as an education facility. The rise of Javanese literary works is inseparable from the presence of the Dutch colonial power in the kingdom. The process of creating Javanese literature, specifically in Surakarta and Yogyakarta, has reached the golden era and is commonly referred to as the revival period of Javanese literature. Such a rise in Yogyakarta Palace is also noticeable after the Diponegoro War. Sultan Hamengkubuwana V, who ruled in 1822-1855, gave an excessive concern on cultural development, so that more than 120 literary works had been produced (Creese, 2001; Hall, 2005).

Among the literary works produced in those days, some of which talk about woman education written in several manuscripts called *serat piwulang putri*. *Piwulang putri* texts comprise the viewpoint of a king, poet, or relative of a kingdom on ideal women or their attitude. In the family of Javanese Palace, woman education is written in some manuscripts that belong to four Javanese Palaces and are currently kept in several museums of Javanese manuscripts (Girardet, 1983; Ratna Saktimulya, 2010).

All this time, philology studies mostly focus on finding out where the texts come from, as well as the publication of text editions for further study. This study, however, was conducted to determine the portrait of the distribution of the manuscripts that contain woman education in Javanese Palace. The study examined the manuscripts in four scriptoria of Javanese manuscripts, namely Surakarta Sunanate, Yogyakarta Sultanate, Mangkunegaran Duchy, and Pakualaman Duchy. Manuscripts about *piwulang putri* are not only in those four Javanese Palaces mentioned earlier, but also in Sonobudoyo library, Faculty of Letters Universitas Indonesia library, Yogyakarta Language Center library, and National Library of Indonesia in Jakarta (Tatyana et al., 2020; van der Meij, 2013).

II. Methodology

A philological approach was employed in this study in order to find out where the manuscripts came from and to produce text editions that the contents could be accounted for. Moreover, the data were collected from the catalog study, and were further analyzed using codicology. The data were in the form of some manuscripts about *piwulang putri* spread over manuscript catalogs. In terms of the catalog study, this study looked for information about the location

of the manuscripts from the available catalogs. The sources of data included Sonobudoyo library in Yogyakarta, Faculty of Letters Universitas Indonesia library, Yogyakarta Language Center library, and National Library of Indonesia in Jakarta.

Research stages were implemented by identifying various catalogs of manuscripts in Sunanate, Sultanate, Mangkunegeran, and Pura Pakualaman. Djamaris (1977) mentioned five effective stages to conduct a philology study, i.e., inventory, transliteration, description, method application, and text editing. The stages undertaken in examining manuscripts philologically were as follows:

- 1) Determining the object of a philology study in the form of texts and manuscripts.
- 2) Reading the manuscript catalogs by discovering and selecting the best manuscripts to be examined.
- 3) Determining singular and plural manuscripts to be examined.
- 4) Describing the manuscripts by providing information in codicology.
- 5) Transliterating the manuscripts.
- 6) Giving editing marks as a way to critique texts.
- 7) Using footnotes if important or difficult-to-understand words were found in the manuscripts.
- 8) Translating the texts to the Indonesian language, through literal, semantic, and free translation (Nichols, 1990; Restall, 2003).

III. Results and Discussion

Javanese manuscripts about teaching for women are not only in those four Javanese Palaces mentioned previously, but also in Sonobudoyo library, Faculty of Letters library of Universitas Indonesia, Yogyakarta Language Center library, and National Library of Indonesia in Jakarta.

Most manuscripts in Sonobudoyo Museum are inherited from the Panti Boedaja Foundation that was established in 1930, along with collected and copied manuscripts until 1942 under the supervision of Th. Pigeaud. The copies of the Panti Boedaja manuscripts made at that time are distributed to several libraries, such as Universitas Leiden, National Library of Indonesia, and Faculty of Letters Universitas Indonesia. The manuscripts inherited from Panti Boedaja that currently becomes Sonobudoyo Museum collections are around 1,200, including 200 *lontar* (ancient manuscripts written on *lontar*/kind of palm leaves), and other 175 manuscripts. Those manuscripts have been registered or recorded in Kraemer 1933: 423-432 (35 texts), Pigeaud II: 911-912 (35), Girardet 1983: 769-948 (776), and Behrend 1988: 37-38 (186). Further, in 1987-1989, a project was led by T. E. Behrend with financial support by The Ford Foundation and other parties. This project intended to make an inventory of these collections, detailed descriptions, and microfilm of each manuscript. The microfilm was given to several institutions, e.g., National Archive of the Republic of Indonesia in Jakarta, National Library of Indonesia in Jakarta, Center for Research Libraries, Chicago (Ill., AS), and Australian National University, Canberra. The description of the manuscripts is very detailed because it compares every manuscript with those that contain the same texts in other libraries, and it registers the poems of each manuscript. Such a process results in 3750 pages in six volumes, i.e., Behrend (ed.) (1989). The catalogs are then summarized and published as Behrend (ed.) 1990. A number of manuscripts as the collection of this scriptorium are also palace manuscripts which are presented to Dutch officials at that moment (Behrend, 1993; COSTER—WIJSMAN, 1953).

The manuscript collections of Faculty of Letters library of Universitas Indonesia were initially organized by Dr. Th. Pigeaud who composed different Javanese scripts from 1925 to 1942 when he aided as a language officer (*taalamtenaar*) of the Dutch administration in Yogyakarta and Surakarta. His duty was to create a new Javanese vocabulary. At the same time, he was also in charge as a scientific advisor (*wetenschappelijk adviseur*) in Stichting Panti Boedaja, a foundation that helped preserve Javanese literary traditions (Behrend 1990: vii). Pigeaud, in one of his reports, states that those Javanese manuscripts were purchased upon request of *Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen* (KBG). The collection and purchase were carried out by Pigeaud and assisted by J.L. Moens (Pigeaud 1933: 254-263). The manuscripts collected by Pigeaud were periodically sent to KBG in Batavia (Jakarta), which now becomes part of manuscript collections of the National Library of Indonesia (Hooykaas, 1970; Pigeaud, 1966).

Nevertheless, at the time when the war began with Japan, hundreds of manuscripts collected under the name of KBG remained in the hands of Pigeaud in Yogyakarta, along with other materials that had been collected by Pigeaud during his 18 years of duty in Java. After the war of independence of the Republic of Indonesia, those materials were stored in the Indonesian Cultural Research Institute (*Instituut voor Taal en Cultuur Onderzoek* or ITCO) that was under the auspices of Faculty of Letters and Philosophy, Universitas Indonesia. ITCO was established in 1947 under the leadership of DR. G.J. Held. However, this institute changed its name to Language and Cultural Institute in 1952. Before changing the name, Language Research Division and Language Center had joined ITCO. Afterwards, Language and Cultural Institute was still under the auspices of Faculty of Letters and Philosophy, Universitas Indonesia led by Prof. Dr. Prijono, who was later replaced by Prof. Dr. P.A. Husein Djajadiningrat. On June 1, 1959, Language and Cultural Institute changed its name to Language and Culture Institute and was officially separated from the Faculty of Letters Universitas Indonesia. It was then under the auspices of the Department of Education and Culture. Pigeaud's manuscript collections, which were originally kept at the Language and Culture Institute, became the collections of the Faculty of Letters, Universitas Indonesia. In 1970, those manuscripts were stored in the Manuscript Bureau of the Faculty of Letters, Universitas Indonesia. Since 1984, the Manuscript Bureau of the Faculty of Letters, Universitas Indonesia had been experiencing organizational changes. Manuscript Bureau became the sub-section of the manuscripts from the Faculty of Letters, Universitas Indonesia library. It is now widely acknowledged as the Manuscript Room of the Faculty of Letters, Universitas Indonesia (Hubinger, 1989; Robson, 2011).

In addition, Javanese manuscripts regarding *piwulang putri* are also in the manuscript collections of the National Library of Indonesia. The collections consist of thousands of handwritten manuscripts, arranged periodically for a century and a half by several Dutch officials, including R.H.Th. Friederich, A.B. Cohen Stuart, J. von de Wall, L.W.C. van den Berg, R. Saleh, J. Knebel, Winter and Wilkens, Ph. S. van Ronkel, J.A. Aeckerlin, C. Snouk Hurgronje, J.L.A. Brandes, C.M. Pleyte, K.F. Holle, C. Th. Te Mechelen, H.N. van der Tuuk, H. Kraemer, Ir. L. Moens, Th.G.Th. Pigeaud, C. Hoykaas, R. Ng. Poerbatjaraka, the Princes of Mangkunegaran Ping IV and VII, and others (Dewi, 2012).

The collections of manuscripts in the National Library of Indonesia were initially part of museum collections sponsored by *Bataviaasch Genootschap van Kunsten en Wetenschappen* (abbreviated as BG) that was established in 1778. However, the procurement of manuscripts was carried out in 1845 after the changes in the organization and mission of BG under the leadership of Dr. W. R. van Hoevell. Since Van Hoevell's time, BG institution started routinely collecting archeology, ethnography, books/libraries, and manuscripts, which currently serve as the core of the collections of the National Museum and National Library of Indonesia. Manuscript collections comprised some primary collections according to local language or manuscript form. The primary collections are arranged in accordance with their forms, including *lontar*, amulet, map, bamboo, and book. On the other hand, the arrangement of the collections is

in compliance with local language have Batak language, Rencong language, Javanese, Malay, Sundanese, Arabic, Dutch, and other different languages (Massil, 1989; Rachman, 2017).

Dozens of manuscripts about *piwulang putri* spread over 16 bundles. Some of them entitle 9 *teks*, including *Serat Wulang Putri Nyi Adisara*, *Serat Darmaduhita*, *Serat Darmarini*, *Serat Warayagnya*, *Serat Menak Cina*, *Serat Panji Jayengsari*, *Serat Candrarini*, *Serat Wulang Estri PB IX*, *Serat Wulang Wanita*, and *Piwulang Putra-Putri Bab Palakrama* (Ratna Saktimulya, 2010).

Those ten texts spread over several catalogs, as follows.

1) *Serat Wulang Putri Nyi Adisara*

The text of *Serat Wulang Putri Nyi Adisara* is in manuscript P27 *Serat Piwulang Warna-Warni* of Sonobudoyo catalog on page 462 with 94 pages. This text is also contained in manuscript P28 in *Kempalan Serat Warni-warni* with 397 pages. Moreover, manuscript number P203 in *Kidung Sisingir* on page 541 also has 402 pages of *Serat Wulang Putri Nyi Adisara*. This text consists of three poems, e.g., Kinanthi (23 stanzas), Maskumambang (26 stanzas), and Sinom (15 stanzas).

2) *Serat Darmaduhita*

Serat Darmaduhita can be found in manuscript P28 in *Kempalan Serat Warni-Warni* on page 462 with 397 pages. It is also contained in manuscript P203 in *Kidung Sisingir* on page 541 with 402 pages. This text only encompasses one poem, Kinanthi with 30 stanzas.

3) *Serat Darmarini*

The text of *serat Darmarini* is in manuscript P28 of *Serat Warna-Warni* of Sonobudoyo catalog on page 462 with 397 pages. This text has two poems, namely Pocung (14 stanzas) and Gambuh (10 stanzas). Pocung poem discusses nine advice given to girls, especially those who will get married.

4) *Serat Warayagnya*

This text can be figured out in manuscript P203 of *Kidung Sisingir* of Sonobudoyo library collections, as well as in manuscript SP269/46RA entitled *Serat Wasita Dyah Utama* as the collections of Sana Pustaka Kraton Surakarta library. *Serat Warayagnya* only comprises one poem, Pocung with 16 stanzas.

5) *Serat Menak Cina*

Serat Menak Cina is in manuscript L199 in *Serat Menak Kandhabumi dumugi Menak Cina* with 301 pages. This text can also be found in manuscript L210 in *Serat Menak Cina dumugi Menak Malebari* that has 861 pages, along with in manuscript L213 in *Serat Menak Kuwari dumugi Menak Malebari* with 504 pages. Another manuscript containing this text is the manuscript P28 in *Kempalan Serat Warni-warni* with 397 pages. *Serat Menak Cina* consists of two poems, i.e., Mijil (9 stanzas) and Asmarandana (17 stanzas).

6) *Serat Panji Jayengsari*

The text of *Serat Panji Jayengsari* is spotted in manuscript P28/SK20 entitled *Kempalan Serat Warni-Warni* as the collections of Sonobudoyo library. In this text, the song of Dhandhanggula teaches about married people.

7) *Serat Candrarini*

Serat Candrarini is in manuscript *Kumpulang Kidung Sisingir* with 402 pages on page 542 in the Sonobudoyo catalogs. This text owns five poems, including Simon, Dhandhanggula, Asmarandana, Mijil, and Kinanthi.

8) *Serat Wulang Estri PB IX*

The text of *Serat Wulang Estri* is in manuscript P152 *Serat Piwulang Warna-Warni* of Sonobudoyo catalog on page 517 with 107 pages. Additionally, it can be found in manuscript I28 *Serat Pethik Kumpul* of Sonobudoyo catalog on page 553 with 158 pages. The text of *Serat Wulang Estri* is contained in manuscript L89 *Kramaleya tuwin Serat Piwulang* of Sonobudoyo catalogs on page 333 with 207 pages. *Serat Wulang Estri* in manuscript P29 *Kempalan Serat-Serat Piwulang* with 220 pages has Sinom (8 stanzas) and Kinanthi (9 stanzas) poems.

9) *Serat Wulang Wanita*

Serat Wulang Wanita is included in manuscript P203 *Kidung Sisingir* of Sonobudoyo catalogs on page 540 that has 172 pages. This text comprises four poems of Dhandhanggula, Asmarandana, Kinanthi, and Mijil.

10) *Piwulang Putra-Putri Bab Palakrama*

The original manuscript of this text is manuscript number 64140 (PB 08) that becomes the collections of the Yogyakarta Language Center library. The manuscript consists of 128 pages with Javanese language and letter of alphabet, and is written with European papers.

IV. Conclusion

Manuscripts that contain woman education in the form of *serat piwulang* used as moral teaching materials in several places (i.e., Surakarta Sunanate, Yogyakarta Sultanate, Mangkuneragan Duchy, and Pakualaman Duchy) can be found in Sonobudoyo library in Yogyakarta, Faculty of Letters Universitas Indonesia library, Yogyakarta Language Center library, and National Library of Indonesia in Jakarta. A number of woman education texts include *Serat Wulang Putri Nyi Adisara*, *Serat Darmaduhita*, *Serat Darmarini*, *Serat Warayagnya*, *Serat Menak Cina*, *Serat Panji Jayengsari*, *Serat Candrarini*, *Serat Wulang Estri PB IX*, *Serat Wulang Wanita*, and *Serat Piwulang Putra-Putri Bab Palakrama*. These manuscripts used to be copied and distributed to the royal family, particularly to married princesses who lived in other places due to the lineage crossing and the marriage process among authorities in those days. The marriage of the princesses was usually related to politics for establishing a harmonious relationship among authorities in the hierarchy of in-laws and son/daughter-in-law, vice versa.

References

- [1] Amit, S., & Jitendra, R. (2017). Continuous time H-infinity filter with asymptotic convergence. *International Research Journal of Engineering, IT & Scientific Research*, 3(4), 77-87. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/553>
- [2] Aryanti, T. (2017). Vision and Gendered Space: Making Women Invisible in Yogyakarta Sultanate Palace. *Space and Culture*, 20(3), 301-314.
- [3] Astawa, P., Budaarsa, I., Sumadi, I., & Mahardika, I. (2016). Additional turmeric powder (curcuminoid) into traditional ration to improve the productivity of bali pig. *International Research Journal of Engineering, IT & Scientific Research*, 2(7), 34-41. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/496>
- [4] Behrend, T. E. (1993). Manuscript production in nineteenth-century java. Codicology and the writing of javanese literary history. *Bijdragen Tot de Taal-, Land-En Volkenkunde*, 3de Afl, 407-437.

- [5] Chemmel, U., & Phillippe, R. (2018). The role of pragmatics in cross-cultural. *Linguistics and Culture Review*, 2(1), 45-59. <https://doi.org/10.37028/lingcure.v2n1.11>
- [6] COSTER—WIJSMAN, L. M. (1953). Illustrations in a Javanese manuscript. *Bijdragen Tot de Taal-, Land-En Volkenkunde*, 2de Afl, 153–163.
- [7] Creese, H. (2001). old Javanese studies: a review of the field. *Bijdragen Tot de Taal-, Land-En Volkenkunde*, 157(1), 3–33.
- [8] Dewi, K. H. (2012). Javanese women and Islam: Identity formation since the twentieth century. *Southeast Asian Studies*, 1(1), 109–140.
- [9] Duizenberg, M. R. (2020). Linguistics landscape: A cross culture perspective. *Linguistics and Culture Review*, 4(1), 15-28. <https://doi.org/10.37028/lingcure.v4n1.17>
- [10] Girardet, N. (1983). *Descriptive catalogue of the Javanese manuscripts and printed books in the main libraries of Surakarta and Yogyakarta* (Vol. 30). Steiner.
- [11] Hakim, M. A., Liu, J. H., Isler, L., & Woodward, M. R. (2015). Monarchism, national identity and social representations of history in Indonesia: Intersections of the local and national in the sultanates of Yogyakarta and Surakarta. *Asian Journal of Social Psychology*, 18(4), 259–269.
- [12] Hall, K. R. (2005). Traditions of knowledge in Old Javanese literature, c. 1000–1500. *Journal of Southeast Asian Studies*, 36(1), 1–27.
- [13] Hewamanage, W. (2016). A critical review of dietary laws in Judaism. *International Research Journal of Engineering, IT & Scientific Research*, 2(3), 58-65. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/488>
- [14] Hooykaas, C. (1970). Literature of Java. Vol. 2: Descriptive lists of Javanese manuscripts. By Theodore G. Th. Pigeaud. (Codices Manuscripti, X.) pp. xv, 972. Leiden, University Library, 1968. Fl. 90. *Journal of the Royal Asiatic Society*, 102(1), 87–88.
- [15] Hubinger, V. (1989). Theodore G. Th. Pigeaud, P. Voorhoeve, Handschriften aus Indonesien [Bali, Java und Sumatra](Book Review). *Archív Orientální*, 57, 176–177.
- [16] Hughes-Freeland, F. (1991). Classification and communication in Javanese palace performance. *Visual Anthropology*, 4(3–4), 345–366.
- [17] Kapoor, K. (2017). Nautanki as a performative art form of north India. *International Journal of Linguistics, Literature and Culture*, 3(1), 7-16. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/185>
- [18] Karjono, M., Bakta, I. M., Karmaya, I. N. M., Pradnyaparamita, D., & Murtiananingsih, -. (2017). Force, support, and endorsing factors of early marriage in adolescent Sasak (Sasak Ethnic) in Central Lombok. *International Research Journal of Engineering, IT & Scientific Research*, 3(2), 171-178. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/545>
- [19] Karnata, I. N., & Putra, A. A. G. (2017). Improving products of vegetable types in dryland on potatoes compost waste basis and cattle rumen. *International Research Journal of Engineering, IT & Scientific Research*, 3(2), 50-58. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/531>

- [20] Keohin, H. C., & Graw, N. J. (2017). Linguistic and cognitive ability of children before five years old on their effort to communicate action. *Linguistics and Culture Review*, 1(1), 50-59.
<https://doi.org/10.37028/lingcure.v1n1.5>
- [21] Kumari, N. (2016). A psychoanalytic reading of D.H. Lawrence's sons and lovers and lady Chatterley's lover. *International Journal of Linguistics, Literature and Culture*, 2(4), 34-42. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/136>
- [22] Linzan, Ángel R. A., Sauvanell, Ángel L. B., & Parra, M. I. F. (2018). Exergoeconomic and ecological efficiency analysis of steam generation system in ecuadorian tuna industry. *International Research Journal of Engineering, IT & Scientific Research*, 4(2), 52-62. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/92>
- [23] Marimuthu, G., & Ramesh, G. (2016). Comparison among original AHP, ideal AHP and moderate AHP models. *International Research Journal of Engineering, IT & Scientific Research*, 2(5), 29-35. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/493>
- [24] Massil, S. W. (1989). The history of the National Library of Indonesia: the bibliographical Borobudur. *Libraries & Culture*, 475-488.
- [25] Mishra, G. J. (2016). Birth of the cool: African American culture and the beat identity. *International Journal of Linguistics, Literature and Culture*, 2(4), 104-109. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/144>
- [26] Nichols, S. G. (1990). Introduction: philology in a manuscript culture. *Speculum*, 65(1), 1-10.
- [27] Nurfatuhayah, -. (2017). Learning materials development on descriptive texts based on local culture as learning at junior high school. *International Research Journal of Engineering, IT & Scientific Research*, 3(6), 39-55. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/9>
- [28] Nyoman Suwija, I., Made Darmada, I., Nyoman Rajeg Mulyawan, I., Suryasa, W. (2020). Balinese folklore value revitalization "Lubdaka" on Siwaratri holy day. *International Journal of Advanced Science and Technology*, 29(9), 5106-5112.
- [29] Pigeaud, T. P. (1966). Literature of Java: Catalogus of Javanese Manuscript in the Library of the University of Laiden and Other Public Collections in Nedherland. *The Hague: Martinus Nijhoff*.
- [30] Rachman, Y. B. (2017). The use of traditional conservation methods in the preservation of ancient manuscripts: A case study from Indonesia. *Preservation, Digital Technology & Culture*, 46(3), 109-115.
- [31] Rahayu, N., Wardo, W., Sudardi, B., & Wijaya, M. (2020). Dynamics of Social Values and Teaching in the Global Era: Beyond Sekaten Tradition in Surakarta Kingdom. *Journal of Social Studies Education Research*, 11(1), 213-229.
- [32] Ramos, JLM, Pérez, AV, Gámez, MR, & Zambrano, RVH (2018). Renewable energy sources on the change of energy matrix in Manabí province. *International Research Journal of Engineering, IT & Scientific Research*, 4 (4), 17-29. <https://doi.org/10.21744/irjeis.v4n4.255>
- [33] Ratna Saktimulya, S. (2010). Le manuscrit du Langen Wibawa du palais du Pakualaman (Yogyakarta). *Archipel*, 79(1), 101-124.
- [34] Restall, M. (2003). A history of the new philology and the new philology in history. *Latin American*

Research Review, 38(1), 113–134.

- [35] Robson, S. (2011). Javanese script as cultural artifact: Historical background. *RIMA: Review of Indonesian and Malaysian Affairs*, 45(1/2), 9.
- [36] Sarwadi, -. (2017). Metaphor translation towards Cilinaye manuscript. *International Journal of Linguistics, Literature and Culture*, 3(4), 49-59. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/217>
- [37] Sawirman, -. (2017). Anti-language, war on discourse, agrolinguistic case, and museum of palm oil in Indonesia. *International Journal of Linguistics, Literature and Culture*, 3(5), 72-82. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/225>
- [38] Saxena, A., & Bharti, M. (2015). Spreading awareness and job opportunities through odl. *International Research Journal of Engineering, IT & Scientific Research*, 1(1), 45-49. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/236>
- [39] Singh, A. (2016). Female genital mutilation: a dark age's curse in the 21st century. *International Journal of Linguistics, Literature and Culture*, 2(3), 23-27. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/113>
- [40] Singla, S. (2016). Confrontation of protest against male chauvinism in arundhati roy's the god of small things. *International Journal of Linguistics, Literature and Culture*, 2(3), 13-17. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/111>
- [41] Situmeang, Y. P. (2017). Utilization of biochar, compost and phonska in improving corn results on dry land. *International Research Journal of Engineering, IT & Scientific Research*, 3(3), 45-57. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/563>
- [42] Suarsini, N. N. (2017). The terminology form in Ngerahinin Kuningan of the perspective Krama Pura Pemaksan Asak Pagutan. *International Journal of Linguistics, Literature and Culture*, 3(2), 24-33. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/201>
- [43] Suryasa, W. (2019). Historical Religion Dynamics: Phenomenon in Bali Island. *Journal of Advanced Research in Dynamical and Control Systems*, 11(6), 1679-1685.
- [44] Suryati, N. M., & Jirnaya, I. K. (2016). Deixis variations of place in balinese language. *International Journal of Linguistics, Literature and Culture*, 2(2), 16-26. Retrieved from <https://sloap.org/journals/index.php/ijllc/article/view/85>
- [45] Tatyana, A., Andrey, K., & Natalia, K. (2020). On Teaching Mathematics to Philology. *Journal of Talent Development and Excellence*, 12(No. 3s (2020): Special Issue), 556–567.
- [46] Udayana, I. G. B. (2017). Marketing strategies arabica coffee with information technology in Kintamani District Bangli. *International Research Journal of Engineering, IT & Scientific Research*, 3(3), 93-102. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/568>
- [47] van der Meij, D. (2013). Nancy K. Florida, Javanese literature in Surakarta manuscripts. Volume 3. Manuscripts of the Radya Pustaka Museum and the Hardjonagaran Library. Ithaca, NY: Southeast Asia Program Cornell University, 2012, 360 pp. ISBN 9780877276098. Price: USD 45.95 (paperback). *Bijdragen Tot de Taal-, Land-En Volkenkunde/Journal of the Humanities and Social Sciences of Southeast Asia*, 169(1), 151–154. .

- [48] Venkatanarayana, I. (2016). Startups in India: sustainable development. *International Research Journal of Engineering, IT & Scientific Research*, 2(3), 43-49. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/486>
- [49] Yusuf, M., Adiputra, N., Sutjana, I. D. P., & Tirtayasa, K. (2016). The improvement of work posture using rapid upper limb assessment: analysis to decrease subjective disorders of strawberry farmers in Bali. *International Research Journal of Engineering, IT & Scientific Research*, 2(9), 1-8. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/403>
- [50] Zambrano, M. I., Veliz, E. A. R., Ormaza, G. F., & Laz, G. L. (2017). Comparison between the material improvement of the megarok and san José quarries, applying the AASTHO standards. *International Research Journal of Engineering, IT & Scientific Research*, 3(5), 50-57. Retrieved from <https://sloap.org/journals/index.php/irjeis/article/view/575>