
Online Digital Photography of Ancient Indonesian Statues for Research Purposes

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ABSTRACT

During the pandemic, lockdown and closure of facilities limited access to museums and archaeological sites. This condition heavily impacted researcher who require observation for analysis on archaeological object, such as statues. As alternative, photography of statues that is distributed to online platform will certainly help to solve this problem. In this regard, three main topics are presented in this paper. Firstly, a review of studies conducted in the past on ancient Indonesian statues using photography as the main source will be presented showing that photography is able to present a formal dimension of sculpture that is useful for stylistic and iconographic studies. Secondly, an overview of current conditions revealing that a number of museums and institutions have provided digital catalogs containing photographs of ancient Indonesian statues, but they have different policies. Lastly, there are some issues with digitizing photographic resources that require multidisciplinary collaboration to solve.

Keywords: Ancient Indonesian Statues, Photography, Formal Analysis, Online Digital Catalogue, Digitization

ABSTRAK

Selama masa pandemic Covid-19, penghentian kegiatan dan penutupan fasilitas telah membatasi kunjungan ke museum dan situs arkeologi. Keadaan ini sangat berdampak pada peneliti yang harus mengobservasi objek kajiannya, misalnya patung. Sebagai alternatif, foto patung yang disebarluaskan secara daring dapat menjadi solusi masalah ini. Dalam tulisan ini akan dibahas tiga hal terkait hal ini. Pertama, tinjauan terhadap kajian patung kuno di masa lalu yang menggunakan foto sebagai dasar kajian menunjukkan cara itu mampu menyediakan data dimensi bentuk yang amat berguna dalam analisis gaya dan ikonografi. Kedua, kini beberapa museum dan lembaga telah menyebarluaskan katalog digital fotografi patung Indonesia kuno, meskipun kebijakan yang diterapkan beragam. Terakhir, untuk menghadapi berbagai isu digitalisasi sumber kajian berupa fotografi perlu dilakukan kerjasama multidisiplin.

Kata kunci: Patung Kuno Indonesia, Fotografi, Analisis Bentuk, Katalog Digital Daring, Digitalisasi

INTRODUCTION

When the pandemic of COVID-19 struck, it created a problem of accessing directly Indonesian museums and archaeological sites because of the mobility restriction, lockdown, and closure of several facilities. Up to May 2020, it was estimated that 162 museums in Indonesia were temporarily closed due to the pandemic (UNESCO, 2020). In response to this situation, digitization became a priority alternative for many museums to survive. Museums had taken some initiatives during the pandemic, and it varies in activities such as 360o virtual tour, online exhibition, online publication, webinar, and boost the activity in social media (UNESCO, 2020). While pandemic effectively triggered the digital transformation among museums, the benefit of digital shifting should also have been advocated on accessible digital catalogue of collections for scholarly pursuit, since the sector of cultural research was also severely impacted by the pandemic. However, the idea of digitizing museum collections and making them available to researchers has in fact been considered since the 1990s among practitioners in Europe (Keene, 1997).

Looking back to the history of Indonesian archaeology, integrating archaeological activities into the most recent technological advancement had always been the interest for archaeological institution. The short interval between the discovery of the first functional photographic daguerreotype in 1839, and its experimental application in pre-independent Indonesia by J. Munnich just a year later attests to how early archaeological activity tried to capitalize on the latest technological discoveries. Afterward, a lot of photographers attempted their effort in documenting the scattered Indonesian's antiquities, such as Adolf Schaefer in 1844, Isidore van Kinsbergen in 1863 and 1873, and Kassian Cephas in 1889-1890 (Sholah, 2021, pp. 358-359). These early efforts paved the way for more systematic attempt of documenting ancient Indonesian heritages through the establishment of Commission for the Archaeological Research in Java and Madura (Commissie voor Oudheidkundig Onderzoek op Java en Madoera) in 1901 and its successor Archaeological Survey of the Netherland East Indies (Oudheidkundige Dienst in Nederlandsch-Indië) in 1912. The result of their persistent endeavour was enormous resources of up to 25000 photographs which were published through an annual report named Oudheidkundige Verslagen (OV) (Hinzler, 1993, pp. 34-35). The documentation of the early 20th century Indonesian heritages is not only an enormous asset for contemporary



archaeological research but also a reminder to always maintain relevancy with technological breakthrough (Sholah, 2021).

Nowadays, as a strategy to face digital transformation and as investment for the future, the dissemination of digitally photographed archaeological resources to online platform seems to be a promising project. The massive utilization of photographic copy of artifacts and monuments since the early invention of photography demonstrates the significance and potency of photography for archaeological research. Meanwhile, elaborating the already constructed digital catalogue of material culture can give a clearer overview on how the idea of digitization can reach a wider audience through online platform. On the other hand, digitization itself is often hindered because providing digitized collections online is not an easy job for any institutions (Caraffa, 2019). Among the many problems at hand, dealing with cost and technical matters alongside copyright issues is becoming notable more than ever now (Bandle, et al., 2020). Exploring this matter will make obvious of how multidisciplinary effort is required for such ambitious project.

There are three main ideas presented in this paper, each of which aims (1) to discuss the value of photo research as data in archaeology, (2) to see how currently museums and institutions provide access to digital catalogues, and (3) to provide an overview of the challenges encountered in providing online digital platforms for catalogues. To limit the scale of the research, the author will only focus to conventional photography, which include analogue and digital photography, in the digitization scheme. Therefore, other computational photography such as photogrammetry and reflectance transformation imaging (RTI) are not discussed in this paper. Restrictions are also made on the types of archaeological objects that serve as examples of discussion, namely ancient Indonesian statues. A statue is a portable object that is very practical to digitize but raises interesting questions regarding the formal quality of replacing the original statue with a photographic copy. It is this discourse that will be a foundation in highlighting the significant value of photography of statues as data for research.

METHOD

Elaborating the various topic within this paper, which span from archaeological approach to photography and digitization, require multidisciplinary insight. To gain

such necessity, the author conducted study from miscellaneous literatures that fall within the category of related topic. Therefore, publications about photography, formal analysis, and digitization, are treated as primary sources to build the argumentation in this paper. Meanwhile, the author also selectively took various examples on previous archaeological research and museum and institutional websites to be used in a case study. There are two previous studies on ancient Indonesian statues, five museum websites, and a library website that altogether are used as samples to support the argument. The information from those websites was collected in March until June 2021.

RESULTS AND DISCUSSIONS

1. Photography of Statues for the Study of Style and Iconography

Early archaeologist had been using various methods to duplicate formal aspect of statues, such as printmaking, plaster, and electrotype. The printmaking method, such as engraving and lithograph, was the traditional and cheapest method to copy statues into a sheet of paper. However, oftentimes these methods have more intervention of human subjectivity through imaginative reconstruction, modified detail, and addition of engraver's preference of style. On the other hand, plaster cast had been used as alternative, but this method also encountered authenticity problems since the plaster cast cannot preserve the texture and medium of the original and some details are often the result of additions from the caster. As a plaster cast, electrotype also preserves the dimension of an object, with additional quality of serving perfect replication since the copy took directly from the surface of an object. Unfortunately, this method only worked with bronze copy as the result, so it is not always suitable for an object where metal is not the main material (Fawcett, 1987). As relatively new technology, early photography was competing with those existing methods. The debate of using photography for analytical purposes on archaeological and art historical studies was as old as the camera itself. Compared to illustration, early photography was seen as a failure to serve three-dimensionality since it rather shows optical and perspectival distortion (Klamm, 2017). Indeed, the roundness of sculpture could never be impressed through the two-dimensional medium of photography (Johnson, 1999).



Despite the limited aspect, photography was still widely preferred since it offered objective reproduction of a statue. Analysing the formal aspect of a statue is one of the advantages which can be taken from photography. In this manner, photography is capable to show the details of the statue in an extraordinary way, which goes beyond what other media can show. The three-dimensional object also is simplified by concentrating on the surface structure. The photography of a specific fragmented part of an object and the whole part is significant to gain the complete characteristic of an object (Klamm, 2017). Such an attempt in which specific close-up detail photograph was used to highlight the formal features in fact had been done by 19th century art historian Alois Riegl through his book titled *Late Roman Art Industry* (Lockard, 2016). Moreover, photography also presents the natural state of a statue itself. It can be stated that the mechanical objectivity of photography is a non-manipulable equivalent of the real object (Klamm, 2017). Hence, conducting the formal assessment of statue through its photographic copy, especially from the specific detail part, is as possible as directly looking at the object itself.

Another notable advantage of using photography for the archaeological research is capability to conduct analysis of objects from multiple places at the same time. As a 19th century German archaeologist, Adolf Furtwängler, claimed, that the close-up photography of statue is feasible to give a precise comparison of different copies in a different location (Klamm, 2017). This mobility of photograph reformed the comparison method as it is possible to include as many data as photographically available.

The preserved formal value and comparability offered by photographic copy of statues is a great potential for studies such as style and iconography. Besides the contrast goal of these approaches, both stylistic and iconographic analysis of statue require a thorough formal description at the first step in order to conclude a complete interpretation. For the next part, we will discuss how the general ideas of formal analysis in each study complemented with an example which used photographic data. In that regard, there are two papers selected from the previous research on ancient Indonesian statues. The first one, concerning the style of ancient Javanese bronze statues, is work by Scheurleer and Klokke (1988) published in the introductory remark of the 1988 exhibition's catalogue entitled *Divine Bronze*. The second one is also a paper by Klokke (1994) published in *Ancient Indonesian Sculpture*, the

symposium held by Rijksmuseum under the occasion of the exhibition *Divine Bronze*, which discussing about the iconography of East Javanese statues.

The study of style, especially in archaeology, is concerning with a motive or pattern that helps categorizing artifact into the region and period as well as establishing connectivity between cultures (Schapiro, 1953). Even though there are no fixed system of analysis in the stylistic description, Shapiro (1953) generally distinguish three aspects for the references. Those aspects are form elements or motives, form relationships, and qualities which include expression (Schapiro, 1953). Observing the form will let the researcher to understand the object better to put it in the bigger contextual framework, such as cultural influence and relative dating.



Image 1. The Photograph of Nganjuk Mandala
(Sumber: digitalcollection.universiteitleiden.nl, OD-1705)

For example, Scheurleer and Klokke (1988) categorized the style ancient Indonesian bronze statues into seven groups based on stylistic, geographic, and chronologic features. The so-called group five is concerned with bronze statues set found in Nganjuk, East Java in 1913, which are often regarded as *Nganjuk Mandala*. The majority of *Nganjuk Mandala* and the main statue, Mahawairocana, are stored in Museum Nasional Indonesia in Jakarta. Meanwhile, Scheurleer and Klokke used the OD Photograph and the photographs taken in exhibition Borobudur held by Rijksmuseum in 1977, which portray several statues of *Nganjuk Mandala* as primary source for the description (Scheurleer & Klokke, 1988). Based on the description, the characteristic of the set, including ornamentation, bodily shape, and the complementary element such as lotus cushion and backing, were elaborated in detail.

As a result, the style of *Nganjuk Mandala* can be concluded as the style of pure Javanese in which Indian influence is no longer to be seen. Besides the stylistic elaboration, based on comparison of the *kala makara* ornament on top of the back-slab of the main figure with the *kala makara* ornament as commonly found on the temples, Scheurleer and Klokke (1988) had suggested the dating of *Nganjuk Mandala* statuettes to the last quarter of the 10th century.

The study of iconography on the other hand, focusses on the meaning of work of art. Panofsky (1972) distinguished three stages which he called pre-iconographical description, iconographical analysis, and iconographical interpretation. The first level, which goal is to understand the primary or natural meaning, is the description of pure form as representation of objects, events, or expressions based on one's subjective life experience. Meanwhile, the next levels, which attempt to understand conventional and intrinsic meanings, require more higher source of interpretation such as literary knowledge and synthetic intuition (Panofsky, 1972).

In her work, Klokke (1994) had criticized the idea of mortuary statues in the late East Javanese period. The object concerned is the statues from Majapahit that bear similar characteristics, stiff standing figures without any flexion, the quite unusual attributes combination, and specific serenity expression. She made preliminary inventory of the statues' photographs from OD photographs and her own photographs taken from the Museum Nasional Indonesia for the purpose of the study. The iconographic analysis shows that the statue's attributes combined with the *mudras* display a characteristic of divine features in meditational states. The same meditational *mudra* is also seen in Candi Kedaton's relief, which depicts *Arjunawiwaha* stories. Meanwhile, the concept of meditational divine is explained in Old Javanese text. This idea of meditational divine confronts the former theory that assumed the *mudra* and face expression represent the dead king and queen.

The two studies above illustrate how photography of statues can be useful for style and iconography studies. This functionality also demonstrates potential research value of photographic data that could support the idea to provide accessible photography of statues. During and after the COVID-19 pandemic, within the current movement of digital transformation, the online catalogue of digital photography is indisputable alternative for answering such demand. Aside from the online platform that reaches wider audiences, the digital format causes the effort to study formal

analysis through photography more viable. As already stated, formal analysis requires both the detail and the whole part of statues photograph for more comprehensive results. The high-definition resolution in digital format provides both detailed and whole picture in a single file. Another point in the case of digital format, the metadata of the object is no less valuable than the object itself. The digitization that includes comprehensive metadata often makes extensive data harvesting more attainable. It is now clear that photography of statues and its metadata sufficient for archaeology and art history studies should be provided digitally.

2. The Transformation to the Digital Catalogue

The invention of collotype revolutionized the printing method of photography into a sheet of paper in early 19th century. Many early archaeological publications in pre-independent Indonesia were exclusively using this technology. The circulation of photographic printing within publication certainly boosted the accessibility of archaeological data which provenance were naturally scattered or inaccessible due to conservational reason. It was also connected scholars internationally who had interest on Indonesian antiquities (Sholah, 2021). By the middle of 20th century, the more comprehensive catalogues of ancient Indonesian statues had been made on many occasions. Bernet Kempers' Ancient Indonesian Art is worth mentioning because of its perceptiveness in carrying out early attempts to preserve the photography of Indonesian antiquity after the world turmoil in the first half of the 20th century (Kempers, 1959). Other important catalogues were made after exhibitions, such as the 1988 exhibition *Divine Bronze* in Rijksmuseum, Amsterdam, and the 1990 exhibition *The Sculpture of Indonesia* in National Gallery of Art, Washington. With up to a hundred photographs on each catalogue, these examples become a valuable source to look for ancient Indonesian statues. Not only that these catalogues display clear image of statues, but also elaborate the description which give contextual explanation useful for the literature review.

Despite the great value of those catalogues have to offer, the printed format made the distribution only circulated among limited scholars. On the other hand, the quality and detail of each photograph is also confined on the size of the paper and the layout of the page, make it insufficient for the formal analysis. Therefore, it is necessary to use the medium of catalogue that capable to provide more better and broader access. Entering the internet era, website or online platform become the certain



alternative. Many museums and institution have been migrating to bring their service into the internet, including providing access of their digital catalogue.

As the institution that store objects, museums are at the frontier in improving the digitization of material cultures with the current technology. As notable examples, international museums like Museum Volkenkunde (Leiden), Rijksmuseum (Amsterdam), The Metropolitan Museum of Art (New York), and The British Museum (London) each have done excellent efforts to include their Indonesian collections in their vast digitization project. These museums demonstrate remarkable results on providing the online digital photograph of ancient Indonesian statues. Their main ideas are identical, which is to distribute their digital collections online. However, each museum has their own preference for the access restriction. Museum Volkenkunde, along with the other affiliates of Netherland National Museum of World Culture (*Nationaal Museum van Wereldculturen*), have made a digital collection website that can be accessed freely online but requires purchasing for download (Modest, n.d.). In other ways, Rijksmuseum and The Metropolitan Museum of Art have chosen a public domain for their digital collection, which mean anyone is allowed to download, modified, and commercially use the photograph. Meanwhile, The British museum applies the middle way through restricted access for commercial use and open access for non-commercial use (The British Museum, n.d.).

Other examples of online platform that display annotated photography of statues published by museums and institutions within Indonesia are still elusive. This is quite unfortunate considering museums and institutions within the country are undeniably the parties that hold the most significant objects, both qualitatively and quantitatively. Example of a few online digital catalogue by Indonesian Museum is the digital display and exhibition by The National Museum in Jakarta. The National Museum used a platform provided by Google to display their digital objects, as recommended by UNESCO. The utilization of Google Art and Culture platform became a trend in museums around the world when the pandemic started (UNESCO, 2020). However, The National Museum displayed their multidiscipline collection in this limited project, so the availability of photography of statues is the only trifling amount from their extensive collections.

Furthermore, library also plays pivotal role in providing access of ancient Indonesian statues photograph, especially those who hold important collection of old photographs such as Leiden University Library. Collaborated with Kern Institute, they had taken the initiative of digitization as early as the 1990s, which led to a website created for OD photographs (Hinzler, 1993). They uploaded the database and made it accessible via the internet in 2005 and on the Digital Collection website since 2009. As of 2012, 15% of the image have been scanned (Boer, 2012). Most of these materials can be accessed freely from anywhere without registration request, and its license is Copyright Undetermined with proper credit for publication purposes (Boer, 2012).

All the above-mentioned websites are certainly facilitating scholars who demand access for ancient Indonesian statues. Apart from the high-resolution digital file, the vital feature that present on each website are capability to zoom the image and see the detail on the statues. This element allows scholars to use this digital copy for formal analysis. On the other hand, each museum has also been attempting to give the complete metadata, so that the object can be put in the proper context. Lastly, the various copyright policy allows the scholar to choose and access the photograph according to their needs.

Considering the benefit and prospect of online digital catalogue, it is expected for other museums and institutions to conduct systematic digitization of their collections. This strategy will give advantage to the museums by generating more research on the related digitized object. On the other hand, researcher can also contribute in building the data by embracing digital transformation as dissemination of the result. However, it is only through collaborative work and serious attention, where such efforts are possible to be done with satisfying output.

3. Various Aspects of the Digitization

A set of frameworks and steps need to be considered before any digitization attempt is taken. Digitized material should not be separated from their surroundings such as catalogues, inventories, human agents, and technology (Caraffa, 2019). Therefore, in providing online digital photography of statues collection, the challenge that will be faced is beyond just taking a photograph. The process involves multilevel stages that can be roughly divided into preparation, conversion, and distribution. Each



stage has its own complication that is related to the process. This paper will attempt to bring a single complication form each stage of digitization. Before digitization begins, categorisation of an object needs to be elaborated to obtain the metadata that complements the digitized image. Next, the digitization process itself requires several technical matters such as cost, technology, and human resource that can be measured to offer the most efficient way. Last, the dissemination of digitized material would deal with serving an online format of both image and metadata and the ethical aspect or copyright. This part will give a general overview of metadata building, expenditure, and copyright along with the digitization effort.

4. The Metadata

In a digitization project, metadata is as important as the digitized object itself. In object such as sculpture and its digital copy, metadata is a piece of information that comprises intrinsic value, context, and structure (Gilliland, 2008). Based on its type, metadata has broad primary function from object management, such as disposition, description, categorization, and organization, to object utilization, such as searching and referencing. For digitized museum collection, there have been a standardized structure or schema comprises a set of elements which formulate metadata. However, many individuals in professional communities have developed a thorough metadata schema to articulate their specific purpose distinction and facilitate common element data mapping. Several known metadata standards, for example, are the Encoded Archival Description (EAD) for archive, the Anglo-American Cataloguing Rules (AACR) for library, and Geospatial Metadata for Geographic Information System. One of the metadata standards intended for the broader community but is suitable for museum collections is Dublin Core Metadata Element Set (DCMES) (Gilliland, 2008). DCMES has fifteen general elements that consist of contributor, coverage, creator, date, description, format, identifier, language, publisher, relation, right, source, subject, title, and type (Dublin Core, 2012). Another standard that specifically customizes the requirement of museums is SPECTRUM. Coordinated by Museum Documentation Association, this standard is based on the UK museum collection and is intended to contain all the elements common to most museums (Patel, et al., 2005). In the end, it is the museum who have to decide which metadata scheme is most suitable based on their necessity. Hence, it is also plausible for museum to combine different metadata

scheme feature for their collections. rview of metadata building, expenditure, and copyright along with the digitization effort.

5. The Expenditure

The conversion of statues into the digital format requires a lot of consideration to create efficient expenditure. It is noteworthy to distinguish digitization format for different purposes of museum activities. Crucial purposes, such as conservation, long-term curation, and research, require a high-resolution and descriptive photograph, while general purposes, like exhibition planning, promotion, and marketing, can use low-resolution and attractive photographs since it is more suitable (Poole, 2010). As another significant point, digitizing photographs that already exist is not less important than digitizing the real object directly. Digitizing old or existing photograph offers efficiency both in time and cost as well as conservatory remark since the old state of statues is visible. It is also preserving the state of fragile photography as an important archive (Seguin et al, 2018).

Furthermore, both digitizing object and photograph require proper technology and software. Besides, the digitization of museum collections is different from other institutional digitization projects, such as library and archive. Museum collections, like statues in various size and material, might need special equipment and photographed from multiple and correct angles (Poole, 2010). The tools, such as camera, studio, lighting set for object digitization, scanner for photograph digitization, combined with the handling by professional staff also determine the result of the digitization process. In this respect, professional handling is as much needed in the digitization project.

In response to digitization market value, several enterprises have emerged to provide the service. These enterprises customized their project in digitating and managing digital collection. They will also offer professional human resources if a museum or archaeological institution wants to use a third party with more reliable expertise. *Axeill*, *ETHER (Eternal Heritage)*, and *Picturae* are several well-known enterprises based in Europe, while *SEAMS (Southeast Asian Museum Service)* fills the niche of cataloguing service companies in Southeast Asia.

Meanwhile, as for the cost of digitization, it will vary according to multiple factors such as the scale of collection and country. *Numéric*, French-based computer & software science company, estimated that a single museum collection digitization



would cost between €25 to €136. That cost is modelled after several component such as preparation, conservation, right clearance, location and movement control, photography or scanning, metadata creation, quality assurance, and project management. It is a considerable amount for the vast museum collections which mostly also have limited source of donation or investment. It is reasonable if many museums have focused their digitization on higher-value objects, which are potential for promotional and commercial use (Poole, 2010).

6. The Copyright

The costly digitization project will only be a futile attempt if the dissemination is hampered. Rijksmuseum has shown a significant example that serves their digital resource as Linked Data. The process of distributing their digital collection as Linked Data, which integrates with other data source, has enhanced the utilization of digital data (Dijkshroon, et al., 2018). There are 400,000 photographs and 650,000 objects metadata in Rijksmuseum Linked Data (Rijksmuseum, n.d.), where 29,782 objects are sculptures and 3,722 are Asian arts as per March 2016. The object metadata, modelled in Dublin Core and Europeana Data Model, is built upon Resource Description Framework (RDF) (Dijkshroon, et al., 2018). Both Rijksmuseum and the Met also open the access for the API (Application Programming Interface) of their digitized collection and metadata for the developer to access and use the information.

To build a comprehensive digital dissemination like those museums, copyright clearance is priority to prevent unwanted lawsuit. Some museums decided to use public domain for the copyright, so that there is no restriction in accessing the digitized copy of statues. However, the process of solving copyright clearance, especially digitized material distributed on online platforms, will likely face various barriers caused by the regulation or the object itself. In the case of ancient Indonesian statues, where usually the creator is unclear, it can be categorized as an “orphan”. That means such work is protected by copyright, but the right holder remains unknown. Indonesia jurisdiction, as stated in Copyright Act number 28 of 2014 sentence 38, regulates that orphan work is owned by the state, and all its utilization is intervened by the state. However, there are other solution for orphan work by using Extended Collective Licencing (ECL) model. This model regulates that the authority or collective right management organisation (CMO) may grant a license to utilize an object even if it is not assigned by the right holder. Even though the problem about the right of an object

is solved, it does not guarantee the museum has the right to access its digital copy since the digitized material is the object of copyright as well. Moreover, photograph of three-dimensional object, such as sculptures, is more likely to be attributed with copyright than two-dimensional object photographs. Because of this legal uncertainty, many museums put so much restriction on their digital collection. The solution for this issue is a negotiation and clear contract between the museum and the photographer to gain understanding about the right of digitized material (Bandle, et al., 2020). Indeed, a museum has the full right to charge their digital collection, especially for commercial use, but that reason should not limit the accessibility for research purpose. Moreover, the uncertainty of copyright regulation in digital resource mining for scientific purposes is apparent in the current state of copyright law (Bandle, et al., 2020).

The collaboration between archaeologist and art historian, curator, cataloguer, photographer, information engineer, computer scientist, programmer, and many other expertise is necessary for a comprehensive digitization project. In Indonesia, the digitization of museum collection for research purposes is a topic that gets less attention in scholarly discussion. The extensive digitization project of ancient Indonesian statues becomes an inclusive opportunity for everyone from various disciplines to discuss this issue in their respective fields. The complete research about digitization in Indonesia can be a starter for more serious effort. Meanwhile, museums and archaeological institutions still have plenty of things to do to prepare for their digitization project. Evaluating museum potency and capability for digitization project anticipate the challenge along digitization process.

CONCLUSION

The study of statues, i.e., style and iconography, can potentially be done through the high-quality photographic copy of the statues. Hence, disseminating high-resolution digital photography of statues with its contextual metadata through online platform is the best way to support this cultural research sector during the pandemic and afterward. Unfortunately, the access to ancient Indonesian statues photography from a museum and archaeological institution is either scarce or limited. In Indonesia, the case even becomes more elusive since a complete digitization effort has not been conducted yet. This accessibility issue is an obstacle for researchers to gain comprehensive data. Indeed, digitization is a project that includes complex



process and multi-expertise collaboration. The technical and conceptual matter is a set of frameworks that needs to be considered for a successful digitization effort. Digitization needs to consider several things about digitized materials, including object and metadata, digitization cost, technology, expert, distribution through online platform, and copyright law problems. These complicated steps will give a valuable result since the digitized material will always fit in the digitally transformed world. Hence, any attempts at digitization, especially those that come from within the country should be encouraged and supported. Moreover, some experts from multidisciplinary field related to digitization should take part in this collaborative work as well. Through this substantial effort, museums and archaeological institutions in Indonesia that store most of ancient Indonesian statues may have comprehensive digitized data that boost the research of related fields in the future.

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