Characteristics of the fortress of Wuna City as a UNESCO cultural heritage

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Abstract. This study uses library research. The data used in this research is secondary data. The data collection technique is carried out by reading, studying, and recording various literature or reading materials, in the form of report documents such as the 2018 Wuna City Fortress Mapping Report by the South Sulawesi Cultural Heritage Conservation Center (BPCB), books, journals, articles, etc, that are relevant to the characteristics of the Fortress of Wuna City which will be related to the theory of the provisions of the OUV (Outstanding Universal Values) assessment by UNESCO. The result shows that the area of the Fortress of Wuna City reaches 265 Ha, so it can be categorized as a monument viz an element or structure. The result of UOV analysis (on the 2nd criterion) shows the value of fort architecture as a strong defense system from enemy attacks. This fort is in the form of a labyrinthine tunnel, built on 2 cliff sides while the slope is between 45–90° with a maximum height of 17.48 m from the ground. On top of the fort's wall structure, there are 23 bastions as a place to guard the royal soldiers. Apart from that, the fortress of Wuna City also shows the value of urban planning. The people of Muna have known 'the city' since 1538. In addition to the fort, supporting facilities that show modern knowledge today is also found in the site. Keywords: UNESCO; Cultural Heritage; Fortress of Wuna City.

1. Introduction
Architecture is more than an object. It is a reflection or expression of a culture’s totality and civilization. In architectural evolution, community change begins with a nomadic system that can be identified by the discovery of caves and huts, a permanent system with people's buildings, and a social system with monumental buildings, government and religion [1]. Moreover, a city that could maintain its character is said to have a local genius [2]. This proves that architecture, culture, and cities have a high correlation.

Urban cultural heritage, whether in the form of objects or intangibles, is a source of social cohesion, diversity, and an impetus for creativity, innovation, and urban regeneration [3]. Therefore, it is necessary to preserve cultural heritage so that the processing of a place in an urban area with the objective of preserving cultural significance in accordance with local situations and conditions as a medium of future generations of learning can be manifest.

One of the many cultural heritage sites found in Indonesia is the fortress. Relic fortress sites found in Indonesia could be a sign that the Nusantara architecture was not familiar with the building construction. The size of the fort building as the defense was built using the unit of measure fathoms
or spans depending on the leader or king [4]. Therefore, several forts found in Indonesia have different characteristics and shapes. In the province of Southeast Sulawesi there are 78 fort sites, and one of them is the fort of Wuna city [5]. This fort is a relic of the Muna Kingdom, built with a wall of rock circling the city [6]. It has been registered as a National Cultural Heritage in the structure category but is still in the review and assessment stage of the Expert Team [7]. This situation requires the assessment of the Cultural Heritage Expert Team in order to be set as a cultural heritage by the Regional Government, as well as the Cultural Conservation Expert Team to conduct a National Cultural Heritage rating which will be determined by the Minister [8]. The fortress of Wuna City is an example of an archipelago fortress site that requires more attention in preservation efforts so that it becomes a medium for learning history for future generations.

UNESCO (United Nations Educational, Scientific and Cultural Organization) is a United Nations Special Agency whose role is to pay attention to the field of world culture. Several stages must be passed by a site (nominee) until it is confirmed as a world heritage by UNESCO, namely: the stages of preparation, preparation, registration, assessment, withdrawal, determination, and modification. In the assessment stage, 3 main pillars must be fulfilled, i.e.: the registered inheritance must meet at least 1 or more of the 10 criteria for the OUV (Outstanding Universal Values) assessment, meet the criteria for wholeness and authenticity, and meet the criteria for protection and management [9]. Indonesia is one of the countries with world heritage sites, which have been recognized by the UNESCO. Those sites consist of 5 cultural sites and 4 natural sites as well as 19 sites that are still on the tentative list or submission [10]. This shows that there is not one fort-type cultural heritage included in the list, even though Nusantara forts are varied and widely found. One of the UNESCO's World Heritage missions is to encourage member countries to register sites in national territories to be included in the world heritage list [11]. Indonesia could consider registering other types of cultural sites such as fortresses based on the National Cultural Heritage rating by the Expert Team.

One of the examples of a fortress that is a UNESCO world heritage is the Bahla Fort in India. This fortress has fulfilled the Outstanding Universal Values (4th criterion) which is an outstanding example of a harmonious type of defensive architecture, surrounding oasis settlements that allowed the dominant tribes to prosper in Oman and the Arabian Peninsula [12].

This study does not analyze the Fortress of Wuna City as a world heritage by UNESCO in 3 main pillars, however, the objective of this study is only to analyze the OUV of the Fortress of Wuna City, where it is one of the main pillars in the UNESCO world heritage assessment stage. Since the Fortress of Wuna City is a cultural site, this study only analyzed 6 of the 10 OUV criteria set by UNESCO.

2. Methods
This study uses library research. Library research is research that is carried out using literature, either in the form of books, notes, or reports on the results of previous studies [13]. The data used in this research is secondary data. Secondary data is data obtained or collected by people who research existing sources [14]. The technique of data collection is carried out by reading, analyzing, and recording various literature or reading materials, in the form of document reports such as the 2018 Wuna City Fortress Mapping Report by the South Sulawesi Cultural Heritage Conservation Center (BPCB) in 2018, books, journals, articles, etc. that are relevant to the characteristics of Wuna City Fort which will be related to the theory of the provisions of the OUV (Outstanding Universal Values) assessment by UNESCO.

3. Discussion
The research location is the in The Fortress of Wuna City site which is located in Tongkuno District, Muna Regency, the province of Southeast Sulawesi (see figure 1).
3.1. Outstanding Universal Values (OUV)

Outstanding Universal Value (OUV) or the so-called universal outstanding value statement is the basis of all valuations and preservation used by the UNESCO in determining world heritage. Based on the Operation Guidelines for the Implementation of the World Heritage Convention article 4, it states the meaning of the statement of outstanding universal value is, "Cultural and natural heritage are some assets that cannot be measured in price and cannot be replaced (their existence), not only for the country (where the heritage is located) but also for all mankind. Losses, due to deterioration or loss, some of these inheritances constitute impoverishment of the legacy of the world community. Because of their outstanding quality, these parts of the cultural/natural heritage can be considered as ‘universal outstanding value’ and valuable enough to receive special safeguards against things that are harmful ‘.

All sites that fulfill the characteristic of the OUV can be designated as a world heritage. This means that the site no longer belongs to one culture or country, but belongs to the entire world community. The priceless and irreplaceable characteristic of a world heritage presented by UNESCO in the 1972 Convention of Cultural Heritage, was later reflected into the 10 criteria for world heritage. A site or building can be called as a world heritage if it meets 1 or more of the 10 criteria. The 10 criteria set by UNESCO are as follows:

1) To represent a masterpiece of human genius (both intellectual and technical);
2) To exhibit an important human value for a certain period or in the cultural area of the world, in architectural or technological developments, monumental art, urban planning, or landscape design;
3) To bear a unique or extraordinary evidence of a cultural tradition or civilization that is still alive or extinct;
4) To be an outstanding example of a building type, building unit or architectural landscape or technology that represents an important level in human history;
5) To be an outstanding example of the traditional settlement, land use, or sea that represents one or more cultures or human interactions with the environment during changing times;
6) To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;
7) To contain superlative natural phenomenon or an area of exceptional natural beauty;
8) To be outstanding example that shows the changing stages of the earth's history, including the record of life, the processes of geological change that took place in the development of the shape of the earth's surface;
9) To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;
10) To contain the most important and significant natural habitats that are critical for in situ conservation of biodiversity, including outstanding species that are threatened with extinction.

UNESCO divides world heritage (world heritage) into 3 categories; cultural sites, natural sites, and mixed sites [10]. The 1st to 6th criteria are the criteria for cultural sites, the 7th to 10th criteria are the criteria for natural sites while the overall criteria are the criteria for mixed sites. Furthermore, in the criteria for the integrity of cultural heritage, UNESCO defines the following 7 attributes:

1) Form and design;
2) Materials;
3) Utilization and function;
4) Traditions, techniques, and management systems;
5) Location and setting;
6) Language, and other forms of intangible heritage;
7) Passion and race.

Whereas what is meant by authenticity for the world heritage set by UNESCO is 3 attributes as follows:

1) The whole means all the related attributes are in the heritage location;
2) Completeness means all attributes are still visible, none of them are missing or have suffered significant damage;
3) Not threatened means all attributes related to inheritance are not under threat due to development (city), deterioration, or neglect.

In the UNESCO World Heritage Center Number 12/01 July 2012 concerning Operation Guidelines for the Implementation of The World Heritage Convention which adopted from the convention in 17 sessions of the General Conference in Paris on November 16, 1972, it was explained that world cultural heritage is divided into 3 general categories, namely:

1) Monument. Included in the category of monuments are architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings, and combinations of features, which have an outstanding universal value from a historical, artistic, or scientific point of view. An example of a monument to world cultural heritage in Indonesia is the Borobudur Temple.
2) Building group. Included in the category of building groups are groups of buildings that are separate or connected because their architecture, homogeneity, or place in the landscape, has an outstanding universal value from a historical, artistic, or scientific point of view. An example of a group of world cultural heritage buildings in Indonesia is the Prambanan Temple complex.
3) Site. Included in the category of sites are human works or works of a combination of nature and humans, and the area includes archaeological sites that have outstanding universal value from a historical, aesthetic, ethnological, or anthropological point of view. An example of a world cultural heritage site in Indonesia is the Sangiran Prehistoric Site.

The assessment process will be carried out by the World Cultural Heritage Committee. The assessment is carried out by repeatedly criticizing the OUV represented by the nominees and making comparisons with similar legacies that have been designated as a world heritage [9].

3.1.1. History of Wuna City Fortress

*Wuna* is the name of an area (now called Muna). The origin of the name *Wuna* was the existence of a hill called Bahutara Hill (ark/boat) which is a rocky hill that from time to time grows and resembles a stone flower and is called *kontu kowuna* (flowering stone). Saweri Gadi (from Luwu-South Sulawesi) and his crew were stranded on the East Coast of Muna, precisely in Butu village. Most of the crew members continued their journey in West Muna and formed a village called Saweri Gadi (Lagadi). In this village, they did not last long and returned to form a village around Butu village (the initial location of being stranded), namely Wamelai, which then developed and there was a marriage with the original inhabitants of Muna (*To Wuna*).
Furthermore, they formed a larger village called Tongkuno which is headed by kamokulano Tongkuno (Tongkuno’s elders). There was deliberation at a house called Lambu Bahalano by kamokulano Tongkuno, which agreed to form 8 villages, whereas 4 villages were headed by mieno (inhabitants) and 4 villages headed by the kamokula. The eight villages are referred to as the Wamelai clump (family) which had the capital of government in Lambu Bhalano.

Mieno Wamelai and kamokulano Tongkuno agreed to appoint La Eli with the title bheteno ne tombula (came up from bamboo) as King I (1417–1467). Moreover, the kings who were appointed were titled sugi such as: Kaghua Bhangkano Fotu had the title Sugi Patola (King II years 1467–1477), La Mbona had the title Sugi Ambona (King III 1477–1497), La Patani had the title Sugi Patani (King IV years 1497–1512) and La Ende had the title Sugi La Ende (King V 1512–1527).

During the reign of the 4 sugi above (after King I), the Government Capital was in Kawuna-wuna City (around the cave/ liang Khobori), where the development of the Muna Kingdom community at that time was already advanced. This is evidenced by the discovery of paintings in several caves depicting hunting, warfare, farming, sailing and astrology, and even paintings of flying humans. Based on the archaeological site, Muna’s historian and the National Archaeological Team call it a prehistoric era that lasted around the 12th century (without foreign influences).

During the reign of La Manuru with the title Sugi Manuru (King VI 1527-1538), there was territorial development of the Muna Kingdom with the formation of 28 new villages, bringing the number to 36 villages. With the increasing number of villages, The King of Muna then named the villages in 4 major areas, as; Ghoerano Tongkuno, Kabhawo, Lawa, and Katobu. As an influential king, Sugi Manuru not only carried out territorial development but also established boundaries between villages, the basis of customary law, rules for the distribution of personnel, requirements for Royal Council officials, held education and government training among his family, visited and made friendships and united the kingdoms around. Sugi Manuru also married women (among his family) in his kingdom as well as women from the surrounding kingdom, in order to get the best descendants. He then divided his descendants into 3 groups based on the formation of character which consisted of; Kaomu (talented in government and science), Walaka (talented in law, religion, and society), and Anangkolaki (talented in agriculture, animal husbandry as well as hunting). This classification resulted in the birth of the classification principle of the Royal Council, namely; Kaomu as Marintano (Government), Walaka as Foatorono (Regulator) while Anangkolaki as Customary Implementer. Apart from these three groups, there was one group called Maradika who were descendants of 8 villages (the pioneers of the formation of the Muna Kingdom), of which the four groups are the Muna Kingdom Council [15].

The fortress of Wuna City was built during the period of the 2 brothers of King Muna (son of Manuru), namely La Kila Ponto (King VII years 1538–1541) and La Pusaso (King VIII years 1541–1551) [6]. In fact, the planning and construction of the fortress of Wuna City, which was initiated by King La Kila Ponto (entitled Mepokanduaghoono Ghoera), did not yet have buildings and were not inhabited by the community. Later, during the reign of King La Posasu (titled Kobhangkuduno), the construction of the Wuna City Fortress was continued and moved to the new Wuna City [16]. He considered Lambu Bhalano, was no longer suitable as the Capital of Government. The location chosen was the southern part of Muna Island [17]. To facilitate the running of the wheels of government, supporting buildings such as; 1 Lambu Bhalano as a royal palace and government center, 4 Lambuno Ghoera (guardhouses), made a highway that connects 36 villages. It is also stated that during the reign of King La Posasu, the Muna Kingdom imposed a modern government [15].

On the orders of King La Posasu, all the villages were moved to the new capital, but only 3 villages were ordered to live outside the fort even though they had residences inside Wuna City. The three villages were used as the ports of the Muna Kingdom. Also, these three regions were the origin of the term bharata (slave). The villages that are classified as 3 bharata, are led by a kino who was appointed by kino bharata (not omputo, a descendant of sugi). Those who were not real kino, were not allowed to enter Wuna City. After all, kino had been crowned, omputo got the title as omputo kino Wuna.
(master of all Wuna kino). This term became known as *Lakina Muna*, who was known during the reign of La Ode Rere (1926–1928) (see figure 2) [16].

![Figure 2. Ancient map of Wuna City Fortress.](image)

Based on other references, King La Kila Ponto established the fortress of *Wuna* City on the orders of his father Sugi Manuru, as the location of the new government which was previously outside the Fortress of *Wuna* City. After that King La Kila Ponto was appointed as Sultan in the Kingdom of Buton. During the reign of La Posasu, apart from continuing the construction of the fort as the center of the new Muna Kingdom, they also began to build various royal facilities that previously did not exist. Furthermore, during the reign of the king of Rumpu Isomba (1555–1575) there were 4 villages. Also, the agricultural and fisheries sectors have been developed. Agricultural products were exported to Sombaopu, Bulukumba, Bajoe Bone, even to Central Sulawesi and North Sulawesi. The territorial waters of the Muna Kingdom at that time were located in the western waters and the eastern waters of Muna, each of which was guarded by a Kapitalao (warlord) [18].

Previously, the villages in Muna were agricultural areas with houses scattered except inside the Fortress of *Wuna* City. Every part of *Wuna* City was inhabited by a ghoerano along with kino, mino, and a fato lindomo. Apart from them, only the La Ode, the Walaka with their wives and servants, were allowed to stay in *Wuna* City. People who lived outside *Wuna* City, could enter the city during market days or wanted to be summoned by the royal leadership. *Wuna* City had 3 paths in and out of the *Wuna* City Fortress. *Wuna* City was abandoned during a dispute between La Ode Kaili (Lakina Wuna) and La Ode Tau (kapitalao Lohia). With security that was no longer guaranteed, *Wuna* City was increasingly collapsing [16].

Of all the remains contained in the area of the Wuna Settlement unit, it was one of Muna's historical assets which socially, culturally and religious had very strategic value for the development of the historic area. From the several remains found at the *Wuna* City Fortress Site, some relics came from different eras, this gives an illustration that generally the remains that are in the *Wuna* City Fortress Site are sustainable relics, from the megalithic tradition to the Islamic era [6].

Regarding the entry of Islam into the Muna Kingdom, it is stated that Islam was brought by a scholar named Abdul Wahid, who came from Mecca during the reign of La Pusaso, with the establishment of a mosque [18]. This is consistent with other references which state that at the end of the reign of King La Posasu, he founded a mosque (not the current location of the mosque) [15]. The
Muna Sultanate is the 10th Sultanate/Kingdom of Islam (founded in 1538) which has carved out its work in the Archipelago [19].

### 3.1.2. Structure of Wuna City Fortress

The structure is one of the elements that cannot be separated from an architectural work [20]. The structure is a means of transferring loads and the consequences of the use and/or presence of the building into the ground. A structure can also be defined as a physical entity that has a whole of character which can be understood as an organization of the main elements that are placed in a space in which the character of the whole dominates the interrelation of its parts. The structure is part of the building that transmits loads [21]. A broader interpretation of the structure is in which the support tools and construction methods are considered intrinsic factors and determinants of form in the process of building design [22].

A building can be called a fortress even if it is only a wall (one side, two sides, three sides, four sides, or more). The fort building can also be complex. Fort buildings can be built using wood, bamboo, or walls (stone, brick, soil, etc.) [6]. Furthermore, the fortress has the meaning of a place that is strengthened by a wall around the walls, for the residence of soldiers [23].

The outer structure of the Fortress of Wuna City is 5.8 km long. However, the total length of the inner structure (Sangia Latugho Fortress) and the outer structure is 7.47 km. This fortress has a thickness between 0.5–6.28 m. One point of the structure is 450 m to the west of the Sangia Latugho Tomb with a height of about 0.5 m which is arranged on a cliff with a height of 17.48 m from the ground. The fort structure that intersects directly with the cliff, besides that the fort structure in the valley is between 2 cliffs. This commonly found in the structure of the Fortress of Wuna City (see figure 3) [18].

![Measurement map of The Fortress of Wuna City](image)

**Figure 3.** Measurement map of The Fortress of Wuna City.
Above the fort wall structure (figure 4 and 5), there are 23 bastions, 13 bastions on the north side, 6 on the south side, and 4 on the west side. The bastion on the north side has 3 different types, a semicircular pattern and the direction of the basin towards the outside of the fort, a semicircular pattern but leads into the fort, and a square pattern and has steps that could function as a patrol road (see figure 6 and 7) [18].

Besides of the Fortress of Wuna City, there are other archaeological potentials inside the fort, it is Sangia Latugo Fortress, pedestal stone of the king’s house, the inauguration stone, the Sangia omputo tomb complex, and the former mosque, Kobangkudono Fort, as well as the ancient tombs, moreover there is a distribution of local and foreign ceramic fragments within the fort. Sangia Latugo Fortress has 1.67 m long (the inner structure) and Kabangkudono Fort is 63.37 m long and 53.33 m wide. In addition, there is the inauguration stone of King Muna with 4.25 m long and 6.24 m wide (see figure 8 and 9) [18].
There is a wall structure that used to function as a protector or stone barrier for the inauguration of the king. The length of the barrier is 8.27 m while the width is 10.29 m. Furthermore, there is a structure for the entrance to the king's inauguration hall made in square zigzags (see figure 10 and 11) [18].

Graves also found there, where the tombs are of a single type and some are in the form of a tomb complex surrounded by a wall structure (see figure 12-15) [18].
The structure of the exile of Fortress of Wuna City is rectangular, 5.18 m long, and 5.08 m wide. An entrance to the exile found with 1 m wide. Currently, the Muna Mosque is still standing inside the Fortress of Wuna City. It has been renovated from its original form. Wuna City Mosque was built with a foundation height of about 100 m. The current area of the Wuna city mosque is about 30 x 40 m, with a wall structure and a steel roof frame with one main pillar in the middle of the mosque as support (see figure 16 and 17) [6].

![Figure 16. Exile plan.](image1)

![Figure 17. Wuna City Mosque.](image2)

4. Results

4.1.1. The area of Wuna City Fortress: Based on the measurement of the length of the outer structure of the fort [18] and a circular plan of The Fortress of Wuna City [16], the researcher tried to find the area (L) of the fort by using the length of the outer structure of the Fortress of Wuna City as the circumference (k) to get the radius (r).

\[
\begin{align*}
    r &= \frac{k}{2 \times \pi} \\
    r &= \frac{5.8 \text{ km}}{2 \times 3.14} \\
    r &= 0.92 \text{ km}
\end{align*}
\]

\[
\begin{align*}
    L &= \pi \times r \times r \\
    L &= 3.14 \times 0.92 \times 0.92 \\
    L &= 2.65 \text{ km}^2 \\
    L &= 265 \text{ Ha}
\end{align*}
\]

Based on the results of these calculations (see table 1), the Wuna City Fortress is wider than the Buton Sultanate Fort (the largest fort in the world) which is 22.8 Ha [24], and the Borobudur Temple (UNESCO world heritage from Indonesia) [9] which is 3 Ha [25].

4.1.2. OUV Analysis of The Fortress of Wuna City: Based on the determination of the world heritage category by UNESCO, the potential of Fortress of Wuna City can be classified into the category of monuments. In the monument category, The Fortress of Wuna City as an element or structure has a length of 5.8 km that surrounds the city area (kingdom).

Furthermore, in this study, the UOV criteria used to analyze the characteristics of the Fortress of Wuna City is the 2nd criteria, which is the criteria for world heritage types of cultural heritage as follows:
4.1.2.1. Exhibits an important human value for a certain period or in the cultural area of the world, in architectural or technological developments, monumental art, urban planning, or landscape design: As previously mentioned, the fortress building can be complex. This complexity can be seen from the structure of the Fortress of Wuna City. Technologically, this fort is made of natural stone chunks obtained from the surrounding environment. While architecturally, the fortress was made in a shape like a labyrinth hallway. This prevented the enemy to enter the central territory of the kingdom. When the enemy was able to get close to the fort walls, they would find it difficult to cross the fort and find a way out because they were trapped.

Another uniqueness found in the Fortress of Wuna City, it is not only built on one side of a cliff but on 2 steep cliffs sides at once. The slope of the cliff is between 45–90° with a maximum height of 17.48 m above the ground. Above the fort wall structure, there are 23 bastions. The distribution of bastion locations is in the north, south, and west. This made it difficult for the enemy to cross the Muna Kingdom Fort. With this defense strategy, in historical records many times the VOC troops, assisted by soldiers of the Sultanate of Buton, were unable to break into the fort's defenses.

In the historiography of urban history, the oldest study of the history of cities in Indonesia is probably de Haan's writings of 1922–1923, Oud Batavia [26]. Whereas, based on the time, Wuna City Fortress was built during the reign of 2 King Muna (1538–1551). This shows that the community of Muna already familiar with the term ‘city’. Although explicitly, there has been no research to explain the term ‘city’ used whether it was a modern city as it today or just a local ‘city’. However, based on the history of the planning of Wuna City, it was formed to move the location of the new Government Capital, as a result of the territory of the Muna Kingdom and the expansion of the increasingly widespread villages, and the construction of supporting facilities by the King of La Posasu, such as; Lambu Bhalano as the royal palace and center of government, Lambuno Ghoera (guardhouse), the main road as a link between villages. And as shown in the ancient map of the Fortress of Wuna City, the other facilities that have been built are; Mosques as places of worship, markets as shopping centers inside and outside the fort, court offices, and burial complexes. So it can be concluded that the Muna Kingdom was familiar with the modern city as it is today.

5. Conclusions

• Based on the calculation of the area of the Fortress of Wuna City, it was found that the area of the fort is 2.65 km² or 265 Ha;
• Based on the world heritage category according to UNESCO, The Fortress of Wuna City can be categorized as a monument, which is an element or structure that has a length of 5.8 km and surrounds the city area (kingdom);
• In the UOV analysis on the 2nd criterion, The Fortress of Wuna City shows the value of the fort’s architecture as a strong defense system from enemy attacks. This fortress also was in the form of a labyrinth. The fortress was built on 2 steep cliffs sides while the slope is between 45–90° with a maximum height of 17.48 m from the ground. On top of the fort's wall structure, there are 23 bastions as a place to guard the royal soldiers. Apart from that, the Fortress of Wuna City also shows the value of urban planning. The people of Muna have known the term 'city' since 1538 (naming the Wuna City). Apart from the fortress, supporting facilities were built in the city to show modern knowledge today.

References

[1] Nuryanto 2011 Hubungan Arsitektur dan Budaya (Bahan Ajar Arsitektur Vernakular) (Jurusan Arsitektur-FPTK UPI)
[2] Amar 2009 Identitas Kota, Fenomena dan Permasalahannya Jurnal Ruang 1(1) (September 2009): 55–59.
[3] United Nations Educational 2013 Scientific and Cultural Organization (UNESCO). Nafas Baru Kota Bersejarah; Penjelasan Tentang Pendekatan Lanskap Kota Bersejarah. France: ©UNESCO
[4] Kasdar 2018 Arsitektur Benteng dan Rumah Adat di Sulawesi (Jakarta: Badan Badan Pengembangan dan Pembinaan Bahasa Kementerian Pendidikan dan Kebudayaan)
[5] Sistem Registrasi Nasional Cagar Budaya. [Online] retrieved from: http://cagarbudaya.kemdikbud.go.id/. Accessed on June 2020,
[6] Sindara S H, Abdul R S and Syahrun 2019 Tinggalan Arkeologis Di Situs Benteng Kota Wuna Kecamatan Tongkuno Kabupaten Muna Jurnal Sangia Penelitian Arkeologi 3(2) pp 54–64
[7] Sistem Registrasi Nasional Cagar Budaya n.d. Benteng Kota Wuna [Online] Retrieved from: http://cagarbudaya.kemdikbud.go.id/search?search=benteng+kota+wuna. Accessed on June 2020
[8] Tobing L R L 2012 Penilaian Cagar Budaya Istana Maimun Skripsi S1 yang dipublikasikan. Universitas Indonesia
[9] United Nations Educational, Scientific and Cultural Organization (UNESCO). World Heritage List. diakses Juni 2020, http://whc.unesco.org/en/list/
[10] Phinemo.com. Hal yang Perlu Kamu Pahami tentang UNESCO World Heritage, https://phinemo.com/unesco-world-heritage/
[11] United Nations Educational, Scientific and Cultural Organization (UNESCO). Bahla Fort. diakses Juni 2020, http://whc.unesco.org/en/list/433
[12] Hasan M Iqbal 2008 Analisis Data Penelitian dengan Statistik (Jakarta: Bumi Aksara)
[13] Unknown 2002 Pokok-pokok Materi Metodologi Penelitian dan Aplikasinya (Bogor: Ghalia Indonesia)
[14] Indonesia. Undang–Undang Cagar Budaya. UU No. 11 Tahun 2010
[15] Batoa L K 1991 Sejarah Kerajaan Daerah Muna (Raha: CV. Astri)
[16] Couvreur J 2001 Sejarah dan Kabudayaan Kerajaan Muna (Kupang: Artha Wacana Press)
[17] Nasrun M 1989 Kerajaan Muna dan Sistem Pemerintahan (Bandung: Indah Jaya)
[18] Balai Pelestarian Cagar Budaya (BPCB) Sulawesi Selatan 2018 Laporan Pemetaan Benteng Kota Wuna Kecamatan Tongkuno, Kabupaten Muna Provinsi Sulawesi Tenggara (Makassar)
[19] Sulistiono Budi 2011 History Umat Islam Nusantara-Problematika dan Tantangannya Paper presented at Prosiding Seminar Pemetaan Arkeologi Islam Nusantara pp 1–15
[20] Schodek D L 1998 Struktur (Bandung: PT. Refika Aditama)
[21] Macdonald A J Struktur & Arsitektur (Jakarta: Erlangga)
[22] Snyder J C and Catanese A J 1989 Pengantar Arsitektur (Jakarta: Erlangga)
[23] Poerwadarminta 1983 Kamus Umum Bahasa Indonesia (Jakarta: Balai Pustaka)
[24] Selviyanti E 2019 Morfologi Kawasan Benteng Keraton Buton (Masa Kesultanan Buton Dan Masa Kini) Skripsi SI yang tidak dipublikasikan UNISSULA
[25] Radio Merapi Indah. Borobodur. diakses Juni 2020, http://merapiindahfm.com/terkini/
[26] Makkelo I D 2017 Sejarah Perkotaan: Sebuah Tinjauan Historiografis dan Tematis Lensa Budaya: Journal of Cultural Sciences 12(2) pp 83–101