

Humane Considerations in Architecture and the Outstanding Universal Significance of 20th Century Cultural Heritage: The Case of Paimio Hospital in Finland

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Abstract: The finding of the under-representativity of 20th century heritage properties on the World Heritage List urged many States Parties to the World Heritage Convention to nominate heritage properties representing this pattern for listing as World Heritage Sites. One of these properties is Paimio Hospital in Finland designed by Alvar Aalto. One of the major themes that have been adopted to justify the hospital's Outstanding Universal Value is the humane considerations in Alvar Aalto's design. The main aim of this study was to explore the common themes and criteria that have been frequently adopted to justify the Outstanding Universal Value of 20th century heritage properties. The study also aimed at discussing the humane considerations in Alvar Aalto's design of Paimio Hospital and the relevance of these considerations to the justifications of the outstanding significance of Hassan Fathy's heritage in Egypt. To achieve the previous aims, seven case studies representing recent heritage were adopted for the analysis of the common themes and criteria adopted to justify the Outstanding Universal Value of recent heritage. One of the previous case studies, which is Paimio Hospital, was adopted for a further analysis of the humane considerations in its design. The findings revealed the diverse humane considerations in Alvar Aalto's design of Paimio Hospital. The findings also revealed that criterion (i) is one of the most frequently adopted criteria to justify the Outstanding Universal Value of 20th century heritage properties. The study suggests that humane considerations in architecture can also be adopted to justify the outstanding significance of Hassan Fathy's heritage in Egypt.

Keywords: Heritage Management, Urban Conservation, 20th Century Cultural Heritage, Alvar Aalto, Hassan Fathy, Paimio Hospital, World Heritage Sites

1. Introduction

A recent study revealed that the World Heritage List suffers from the under-representativity of particular UNESCO's regions and particular heritage patterns. The Arab States region, to which Egypt belongs, is one of the under-represented regions, while modern architecture of the 20th century and vernacular heritage are among the under-represented patterns [1]. To overcome the previous problem, the World Heritage Committee adopted a strategy called the Global Strategy in 1994 [2] and undertook a number of measures to implement it. These measures involve encouraging States Parties to nominate properties that belong to the under-represented patterns for listing as World Heritage Sites. The World Heritage Centre, in collaboration

with the ICOMOS and DOCOMOMO, has also founded the Modern Heritage Programme in 2001 [3] in order to take care of the recent heritage representing the modern architectural movement of the 19th and 20th centuries. The findings of the previous study have encouraged many States Parties to list on their Tentative Lists properties representing 20th century heritage, while others managed to either nominate for inscription or to inscribe similar properties on the World Heritage List. "Paimio Hospital (formerly Paimio Sanatorium)" in Finland designed by Alvar Aalto is an example of the 20th century heritage properties that have been nominated for listing as a World Heritage Site [4].

"Alexandria, ancient remains and the new library" is the only property that is listed on the Egyptian Tentative List that incorporates within its boundaries an element representing

modern architecture, which is the library of Alexandria [5]. On the other hand, one of the Egyptian World Heritage Sites incorporates within its boundaries two properties representing 20th century and vernacular heritage and are designed by Hassan Fathy. This World Heritage Site is “Ancient Thebes with its Necropolis” in Luxor. The previous two properties are New Gournia Village and Stopplaere House. However, these two properties are not considered among the elements that contribute to the World Heritage Site’s Outstanding Universal Value [6] that is because this World Heritage Site has been inscribed mainly because of its archaeological value and because the recognized earthen heritage elements inside this World Heritage Site do not involve any of the properties designed by Hassan Fathy [7]. However, the properties designed by Hassan Fathy still enjoy outstanding heritage qualities that allow them the chance to qualify for the World Heritage Site status [8].

On the other hand, Paimio Hospital in Finland, which has been nominated for listing as a World Heritage Site in 2004 [4], represents the architectural heritage of the modern movement. Three world heritage criteria; which are (i), (ii) and (iv); have been adopted to justify the hospital’s Outstanding Universal Value. The justifications concerning criterion (i) attributed the property’s Outstanding Universal Value to the humane considerations in Alvar Aalto’s design [9]. Humane considerations in design can also be adopted to justify the Outstanding Universal Value of New Gournia Village in Egypt.

In order to inscribe Paimio Hospital, as well as Hassan Fathy’s heritage, as World Heritage Sites, these properties should be proven to enjoy an Outstanding Universal Value. The Outstanding Universal Value of heritage properties has been introduced as a level of heritage significance by the World Heritage Convention [10]. The World Heritage Convention indicates that the World Heritage Sites that enjoy an Outstanding Universal Value are either cultural or natural properties that are important for all the peoples of the world, and represent a significant part of the world heritage of mankind as a whole [10]. Properties nominated for listing as World Heritage Sites are considered to enjoy an Outstanding

Universal Value if they were found to satisfy one or more of a list of 10 criteria (Table 1). In addition to the previous criteria, nominated properties should also meet the conditions of integrity and/or authenticity and must have adequate protection and management systems, so that they can be inscribed on the World Heritage List [11].

2. The Aim and the Method of the Study

The main aim of this study was to analyze the common themes and criteria that have been frequently adopted to justify the Outstanding Universal Value of 20th century heritage properties listed on the World Heritage List or on Tentative Lists. The study aimed at scrutinizing the humane considerations in Alvar Aalto’s design of Paimio Hospital in Finland that have been adopted to justify the hospital’s Outstanding Universal Value. The study also aimed at discussing the relevance of these humane considerations in design to the justifications of the outstanding universal significance of Hassan Fathy’s heritage in Egypt.

In order to analyze the major themes and criteria that are frequently adopted to justify the Outstanding Universal Value of 20th century heritage properties, seven case studies representing 20th century heritage (Table 2) were adopted. Six of the previous case studies were chosen to represent the architectural heritage of the modern movement while the seventh, which is the mosque of Niono in Mali, represents recent vernacular heritage [20]. For the analysis of the humane considerations in design that can be adopted to justify the Outstanding Universal Value of 20th century heritage properties, the study focused on one case study, which is Paimio Hospital in Finland designed by the Finnish architect Alvar Aalto. A thorough exploration of the humane considerations in the design of Paimio Hospital was carried out for the previous purpose and was followed by a brief analysis of the humane considerations in Hassan Fathy’s design of New Gournia Village in Egypt and a discussion on the relevance of the humane considerations in design to the justifications of the outstanding universal significance of New Gournia.

Table 1. The World Heritage Centre’s criteria that are used to justify the Outstanding Universal Value of the properties nominated for the inscription on the World Heritage List (Source: [11, pp 16-17]).

Criteria	
(i)	represent a masterpiece of human creative genius
(ii)	exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design
(iii)	bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared
(iv)	be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history
(v)	be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change
(vi)	be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria)
(vii)	contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
(viii)	be outstanding examples representing major stages of earth’s history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features
(ix)	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
(x)	contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation

The previous two case studies, which are Paimio Hospital and New Gournia Village, were considered relevant for several reasons. The first reason is that Alvar Aalto (1898-1976) [21] was a contemporary of Hassan Fathy (1900-1989) [22]. The second reason is that both architects share the same early career shift from the then prevalent architectural style of Classicism to either Modernism, which is the case of Alvar Aalto [21], or to Vernacular Architecture, which is the case of Hassan Fathy [23]. However, the previous argument reveals one of the major differences between the two architects' ideas. While Alvar Aalto believed in the two principles of modernism, which are functionality and standardization in design, Hassan Fathy was an advocate of one of the principles of traditional architecture that is concerned with individuality in design. The third reason is the profound influences of both architects' ideas. Hassan Fathy's ideas have had profound influences on many architects and philanthropists who adopted his ideas and tried to apply them, such as Simone Swan in the United States [24]. On the other hand, the architectural materials and paradigms employed by Alvar Aalto in his designs still inspire other architects worldwide.

3. The Major Themes and Criteria Adopted to Justify Recent Heritage Universal Significance

The analysis (Table 2) indicated that the major themes adopted to justify the Outstanding Universal Value of the six properties representing the architectural heritage of the modern movement involve the modern architectural ideas and the creativity in design that these properties represent. For instance, the justifications of the Outstanding Universal Value of the Bauhaus involve its representation of avant-garde architectural ideas. The other major themes involve modernism's concepts such as functionalism and standardization. Being an example expressing the concept of functionalism was adopted to justify the outstanding significance of the Bauhaus and Paimio Sanatorium. The outstanding significance of Paimio Sanatorium has also been justified based on its representation of the concept of standardization. Using modern materials and latest construction technology represents another theme that has been adopted in the case of the Bauhaus. The themes adopted to justify the Outstanding Universal Value of Paimio Sanatorium also involve employing latest technical solutions in architecture.

Table 2. An analysis of the main themes and criteria adopted to justify the Outstanding Universal Value of the adopted seven case studies (Source: [4, pp 1-2; 9, pp 31-35; 12; 13, pp 26-27; 14, pp 1-7; 15, pp 1-7; 16, pp 1-8; 17, pp 1-6; 18, pp 1-5; 19, pp 1-3]).

Criteria	Property [State Party] and the major themes
	Bauhaus and its Sites in Weimar and Dessau [Germany] *
(ii)	1. Being a central work of European modern art, embodying avant-garde ideas, which involve functionalism, directed towards radical renewal in architecture and design that have worldwide influences
(iv)	2. Being a fundamental representation of Classical Modernism and an essential component of the image of the 20 th century
(vi)	3. Being the foundation of the modern movement which was to revolutionize artistic and architectural thinking and practice in the 20 th century, and the strong influences of its design on artistic and architectural thinking and practice worldwide in the 20 th century
	4. The creativity in using then modern materials (reinforced concrete, glass and steel), industrial resources, and modern construction technologies (skeleton construction, glass facades)
	5. The association with the pioneers of modernism
	Major Town Houses of the Architect Victor Horta (Brussels) [Belgium]*
(i)	1. The creativity of the houses' design and their representation of the highest expression of Art Nouveau Style
(ii)	2. The representation of the houses of a decisive stage in the evolution of modern architecture in the closing years of the 19 th century
(iv)	3. Being outstanding examples representing the transition from the 19 th to the 20 th century
	Works of Antoni Gaudí [Spain]*
(i)	1. Exceptional creativity in the houses' design and its influences on the development of architecture and building technology in the late 19 th century and early 20 th century
(ii)	2. The profound influences on the development of modern construction technology in the 20 th century
(iv)	3. The creative contribution to the development of building typology in the 20 th century
	Sydney Opera House [Australia] *
(i)	1. Creativity in architectural design, in relation to architectural form and structural design
	2. Great 20 th century architectural, urban sculptural and townscape qualities
	Frank Lloyd Wright Buildings [United States of America]**
	1. The outstanding creative contribution to 20 th century architecture
(i)	2. The creativity in designing modern architecture, in terms of the dynamic interiors; the response to users' needs; the creative integration with the immediate context and the creative relationship between form and function
(ii)	3. The outstanding influences on the development of modern architecture and on architects worldwide
	4. The outstanding influential modern architectural qualities; in relation to treatments of spaces, abstract geometry of form and integration with the setting
	Paimio Hospital (formerly Paimio Sanatorium) [Finland]***
	1. Employing creative and latest architectural solutions to serve the needs and well-being of the patients
(i)	2. Innovative experimentation with new technical solutions and the development of interior design with a strong emphasis on the significance of the human touch
(ii)	3. Strong influences on the development of functionalism worldwide
(iv)	4. Being a pure example of functionalism responding to the requirements of standardization and hygiene

Criteria	Property [State Party] and the major themes
La grande mosquée de vendredi de Niono [Mali]**	
(iii)	1. Exceptional traditional architectural qualities in terms of elements, style and construction techniques
(iv)	2. Exceptional townscape qualities in terms of the mosque's harmonious relationship with its surroundings

* World Heritage Site

** On the Tentative List

*** On the Tentative List and nominated

The major themes adopted to justify the outstanding significance of the previous six properties involve their representation of 20th century's new architectural styles, such as Modernism and Art Nouveau. Representing the Art Nouveau style is one of the themes adopted in the case of the houses of Victor Horta. Representing a decisive stage in the evolution of modern architecture at the end of the 19th century and the transition to the 20th century is another theme adopted in the case of the houses of Victor Horta. The influences on the development of modern architecture and on architects worldwide represent another theme adopted in some of the previous case studies. However, a unique theme has been adopted to justify the Outstanding Universal Value of Paimio Sanatorium, which is concerned with employing the latest technologies to serve the needs of the patients and with Aalto's human touch in design, or what can be described as the humane considerations in design. On the other hand, the major theme adopted to justify the Outstanding Universal Value of the mosque in Niono is the property's exceptional traditional architectural qualities, particularly its architectural style and traditional construction techniques. The analysis (Table 2) also indicated that the most frequently adopted world heritage criteria, in the case of the six properties representing the architectural heritage of the modern movement, are criteria (i) and (ii), followed by criterion (iv) (Table 1). On the other hand, the criteria that have been adopted to justify the Outstanding Universal Value of the property that represents recent and vernacular heritage, which is the mosque in Niono, are criteria (iii) and (iv) (Table 1).

4. The Humane Considerations in the Design of Paimio Hospital

4.1. General Backgrounds on the Architect, Alvar Aalto, and Paimio Hospital

Alvar Aalto was born in Kuortane, Ostrobothnia, Finland in 1898. He started his architectural education at Helsinki Polytechnic in 1916 and graduated as an architect in 1921. In 1923, Alvar Aalto founded his first architectural office in Jyväskylä. In 1933, Alvar Aalto moved to Helsinki where he founded his new office. In 1976, Alvar Aalto passed away [21]. Alvar Aalto designed a large number of buildings in

Finland; such as Paimio Hospital, Villa Mairea, Säynätsalo Town Hall, and Jyväskylä administrative and cultural centre. Alvar Aalto designed other buildings abroad, such as Viipuri City Library in Vyborg in Russia [25]. He also designed a large number of wooden chairs, furniture elements and light fixtures [25], some of which are still produced on a commercial level by the Finnish company Artek [26], in addition to some plastic housewares [25]. Among the most interesting items that Alvar Aalto designed is his wooden motorboat [27].

The spread of tuberculosis in southwest Finland at the end of the 1920s urged 48 municipalities in the Finnish region of Varsinais-Suomi (southwest Finland) to found a specialized tuberculosis sanatorium. The site of the sanatorium was chosen in the city of Paimio in the province of Varsinais-Suomi. At the end of 1928, an architectural competition was held for the design of the sanatorium, the winner of which was declared in 1929 to be Alvar Aalto [9]. Alvar Aalto's concept of the design of the sanatorium was to harmoniously connect the quiet zone where the patients' rooms are located and the noisy services zone. The main sanatorium building (Figure 1) comprises three sections, the first of which encompasses the patients' rooms and the rest halls. The second comprises the communal spaces; which are the dining hall, the recreation rooms, the library, and the hobby rooms. The first and second sections are connected by the vertical circulation area. The third section comprises the technical and services rooms, such as the kitchen and the heating plant [28]. The noisy services zone in the main building was kept away from the patients' rooms. The site (Figure 2) comprises other small separate buildings; which are the garage, the physicians' houses, and the employees' houses [28]; in addition to the landscape elements.

From the middle of the 1960s and onward, the number of tuberculosis sufferers has declined. Consequently, the function of the sanatorium has changed to involve the treatment of all kinds of pulmonary diseases. The sanatorium's function has been expanded in the 1970s to involve the treatment of rheumatic diseases. In 1993, the property incorporating Paimio Sanatorium and the surrounding residential and supplementary buildings has been listed as a national building monument [9].



Figure 1. The main building in Paimio Sanatorium (Source: [12]).

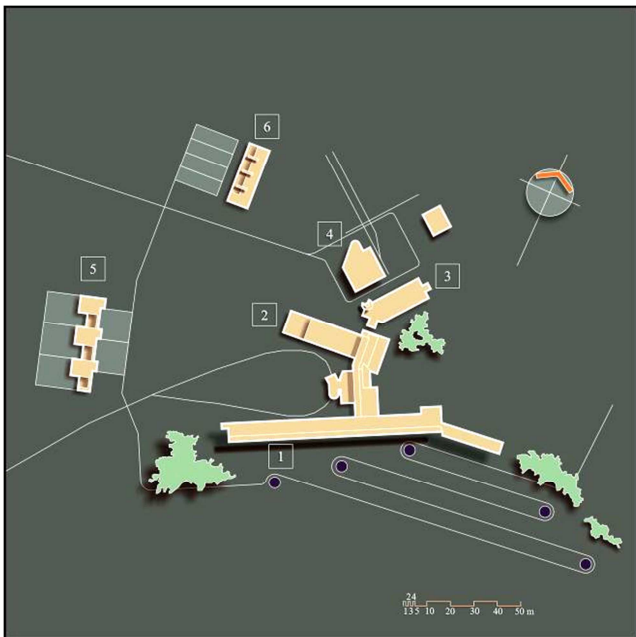


Figure 2. The main elements in the site of Paimio Sanatorium (Source: [28, p32; 12]). 1. Patients' wards and rest terraces, 2. Common rooms, 3. Technical and services rooms, 4. Garage, 5. Physicians' houses, 6. Employees' houses.

4.2. The Humane Considerations in Alvar Aalto's Design of Paimio Hospital

In 2004, the Finish government nominated Paimio Sanatorium for listing as a World Heritage Site, and was later called Paimio Hospital [4]. Three world heritage criteria have been adopted to justify the property's Outstanding Universal Value; which are criteria (i), (ii) and (iv) (Table 1) [9]. Criterion (i) has been the only criterion adopted to justify the property's Outstanding Universal Value on the basis of the humane considerations in Alvar Aalto's design [9]. The justifications of criterion (i) focus on Alvar Aalto's experimentation with new technological solutions, characteristic of modernism architecture and functionalism, in order to serve the needs of the patients. On the other hand, the justifications of criterion (ii) focus on the influences of the hospital's design on the development of functionalism in

Finland and the Nordic countries. Finally, the justifications of criterion (iv), which focus on the consideration of the hospital as an outstanding example of a type of building and architectural ensemble that illustrates a significant stage in human history, consider the hospital as one of the pure examples of functionalism that respond to the requirements of standardization and hygiene [9].

Alvar Aalto's architectural principles emphasize his humane considerations in design, in general. Using techniques to serve human beings' needs is one of Alvar Aalto's architectural principles that indicate these humane considerations [28]. The hospital building in Paimio emphasizes Alvar Aalto's humane considerations in design. The building embodies a functionalism ideology that is concerned with employing architecture to serve society and to improve social disadvantages [9]. The modernism principles that Alvar Aalto adopted in his design of the hospital also emphasize his humane considerations in design. These principles involve standardization in design, concerns for hygiene and economy in design, and concerns for users' comfort [9]. The hospital's success in satisfying the special needs of tuberculosis patients indicates Alvar Aalto's humane considerations in design. Alvar Aalto's design of the hospital aimed at creating what he called the perfect peace, which was for him a prerequisite for healing patients [9].

Alvar Aalto's humane considerations in the design of the hospital are emphasized by his meticulous design of the various architectural elements and spaces to promote the patients' physiological and psychological wellbeing. From the early stages in the design process, Alvar Aalto focused on tuberculosis patients, whose comfort and wellbeing were of central importance to him. He carefully oriented each wing of the hospital building to the orientation that suits its function. For instance, the patients' rooms were oriented to the east to face the morning sun [9], and to avoid the noise and the pollution of the traffic [28]. The patients' rooms were also oriented to the east towards the forest and the surrounding gardens to provide the patients with the serenity they need [28]. Alvar Aalto incorporated in his design a number of sun balconies for the patients, which were designed large enough to accommodate at least 24 patients lying down on beds. He designed these balconies for the psychologically vulnerable patients. Alvar Aalto also provided a sun deck (Figure 3) for at least 120 patients on the upper floor [9]. This sun deck was oriented to face the surrounding serene forest and gardens mainly to boost the patients' morale. Alvar Aalto incorporated in his design two other relevant elements, which are the rest halls that are located at the east end of the building, and the rest terraces [28]. The communal spaces that Alvar Aalto installed in the hospital's building to promote the patients' social life and psychological wellbeing emphasize the humane considerations in his design. These communal spaces involve the library, the reading rooms, the work rooms, the common rooms, and the dining hall [9].

In order to create an internal environment that helps in promoting the patients' physiological and psychological wellbeing, Alvar Aalto meticulously designed the smallest

details in the patients' rooms. Alvar Aalto paid close attention to the design of the lighting, heating, ventilation, and acoustics systems in the patients' rooms [9]. The heating panels of the radiating ceilings in the patients' rooms were placed so that radiation is directed to the patients' feet away from their heads. The rest of the room receives very slight radiation. The windows in the patients' rooms were designed so that air enters diagonally away from the patients, thus naturally becomes warmer [28]. The previous concerns emphasize the humane considerations in Alvar Aalto's design of the hospital.



Figure 3. The sun deck in Paimio Sanatorium (Source: [12]).

Alvar Aalto's meticulous design of many furniture elements in the hospital to create a comfortable and peaceful internal environment for the patients indicates the humane considerations in his design. One of these furniture elements is the patients' wooden chair [9], which is usually referred to as Paimio chair (Figure 4). Alvar Aalto designed the backrest of the chair leaning at a particular angle that was confirmed to improve the patients' respiration [25]. The other significant furniture element that Alvar Aalto designed especially for Paimio Hospital is the non-splash washbasin in the patients' rooms (Figure 5) [9]. Alvar Aalto designed the washbasin so that the stream of water coming from the faucet meets the porcelain in an angle that was confirmed to abolish the noise and splash of the water stream [28]. The appropriate angle of inclination of the porcelain was determined as 45 degrees. The washbasin was supplemented by a glass conical spittoon that has a circular rim inside which running water was provided, which was provided for the tuberculosis patients [29]. He also installed a special mechanical ventilation and exhaust system in the kitchen that made it possible to get rid of the swinging doors, which usually separate the kitchen and the service area from the dining hall, and to get rid of the noise they produce [28]. Alvar Aalto was also careful in his design of the hospital's interior to use the colors that create a cosy and humane atmosphere [9].

The landscape elements that Alvar Aalto designed in the green areas adjacent to the hospital reflect his care for the patients' needs and the humane considerations in his design. The most significant of these landscape elements is the serpentine path with water fountains (Figure 6), which create a pleasant atmosphere and help in the rehabilitation of the patients. Emphasizing his care for the wellbeing of the patients, Alvar Aalto appended a purification plant to the hospital's building to provide the patients with clean drinking water. He also designed a special shaft network and maintenance system to guarantee the highest possible hygiene in the hospital and the peace of the patients [9].



Figure 4. Paimio chair that is exhibited inside the main sanatorium building (Source: [12]).



Figure 5. The non-splash washbasin inside one of the patients' rooms in Paimio Sanatorium (Source: [12]).



Figure 6. The serpentine path with the water fountains that Alvar Aalto provided in the immediate surroundings of the main building in Paimio Sanatorium (Source: [12]).

5. Hassan Fathy's Heritage in Egypt

Hassan Fathy, Egypt's most renowned 20th century's architect, was born in Alexandria in 1900 and passed away in 1989 [22]. Hassan Fathy designed a large number of projects many of which were constructed [23]. New Gournia Village is Hassan Fathy's most significant community centered project. The aim of the design of the village was the relocation of a traditional community residing inside a nearby village called Old Gournia in the new village [30]. The construction of New Gournia began in 1946 and was suspended in 1947 [23].

The various projects that Hassan Fathy designed, particularly New Gournia, express his extreme humane considerations in design. These humane considerations are represented by Hassan Fathy's interest in designing buildings that are sensitive to their users' physical and cultural needs [22], his interest in using natural ventilation and energy saving design techniques that are based on the most advanced scientific knowledge [23], and his interest in using cheap traditional building materials to build inexpensive houses for the peasants in Egypt [23]. The previous considerations also involve his interest in allowing the peasants the chance to participate in the design of their houses in New Gournia [31], and his interest in maintaining Old Gournia community's traditional way of life and marriage through his design of New Gournia [23]. Hassan Fathy's care to design the smallest details of the internal spaces and the furniture elements in the peasants' houses (Figure 7) and his devotion to understand the peasants' needs and way of life emphasize the humane considerations in his design of New Gournia. These spaces involve the cooking place in the kitchen, the laundry area, the bathrooms, and the bedrooms (Figure 8) [31]. Hassan Fathy's efforts to combat bilharzia disease through his design of New Gournia, and his interest in providing the village with an artificial lake whose water would have been decontaminated against bilharzia [31], represent one of the key humane aspects in his design.



Figure 7. One of the peasants' houses in New Gournia (Source: [12]).

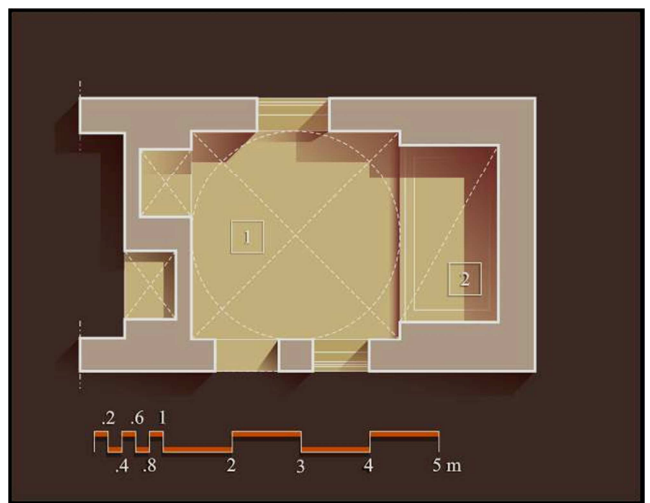


Figure 8. The design of the bedrooms in the peasants' houses in New Gournia emphasizes the humane considerations in Hassan Fathy's design of the village. Taking into consideration the poverty of the peasants, Hassan Fathy provided the bedrooms in their houses with built-in beds that have enough storage area under them. The figure shows the plan of one of the bedrooms that Hassan Fathy designed for one of the peasants' houses in New Gournia. 1. Dorkaa, 2. Iwan (Source: [31, illustration 113; 12]).

The diverse and extreme humane considerations in Hassan Fathy's design of New Gournia and his other projects contribute to the outstanding significance of his heritage. These humane considerations can also be adopted to justify the Outstanding Universal Value of Hassan Fathy's heritage. These humane considerations were based on the most advanced scientific knowledge [32]. Consequently, criterion (i), which has been adopted in the case of Paimio Hospital to justify its Outstanding Universal Value based on its humane considerations, can also be adopted to justify the Outstanding Universal Value of Hassan Fathy's heritage based on his humane considerations in design.

6. Conclusions

The findings revealed that the themes that are most frequently adopted to justify the Outstanding Universal Value of 20th century heritage properties involve the modern architectural ideas and creative design concepts that these

properties embody, and the modern materials and later technological solutions used in their construction. A unique theme has been adopted in the case of Paimio Hospital, which is concerned with employing the latest technologies to serve the needs of the patients and with Alvar Aalto's human touch in design. The findings revealed that the world heritage criteria that are most frequently adopted to justify the Outstanding Universal Value of the architectural heritage of the modern movement involve criterion (i), which is concerned with the cultural properties that represent a masterpiece of human creative genius. On the other hand, the key criteria adopted to justify the Outstanding Universal Value of recent and vernacular heritage properties involve criterion (iii), which is concerned with the unique or exceptional testimony of the heritage property to a cultural tradition or to a civilization which is living or which has disappeared.

The findings revealed the diverse humane considerations in Alvar Aalto's design of Paimio Hospital. Alvar Aalto's devotion to utilize the most advanced technologies to serve the needs of the patients and his design of furniture elements such as the non-splash washbasins in the patients' rooms are some of the most significant humane consideration in his design of the hospital. When Paimio Hospital was nominated for listing on the World Heritage List, the humane considerations in Alvar Aalto's design were adopted among the justifications of its Outstanding Universal Value addressed through criterion (i). The study also emphasized the humane considerations in Hassan Fathy's design of New Gournia and their possible contribution to the village's potential Outstanding Universal Value. The study recommends inscribing Paimio Hospital as a World Heritage Site based on its representation of a unique theme concerned with humane considerations in design. The study also recommends the recognition of New Gournia among the elements that contribute to the Outstanding Universal Value of the World Heritage Site in Luxor, and adopting criterion (i) to justify the potential Outstanding Universal Value of the village on the basis of the humane considerations in its design.

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