

## **The Reconstruction of Ancient Egyptian Buildings and Site's Remains and Ruins The Justifications and an Overview of Some Practices**

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### **Abstract**

The reconstruction of archaeological remains and ruins of buildings and sites is a dilemma and a controversial theme among specialists, but the predominant and widespread the conservative view the reversible minimum interventions which is against reconstruction . this paper exhibits this current approach and confounds it with the warrants or justifications for buildings and sites reconstruction 's remains and ruins particularly ancient Egyptian ones which have some particular conditions , and with exhibition to the general criteria for reconstruction, holding the pass with an overview of some proverbial reconstruction practices of ancient Egyptian buildings (the temple of Hatshepsut at el-Deir el-Bahari, the white chapel of Senusret I , the Egyptian Alabaster Chapel of Amenhotep I and the Red Chapel of Hatshepsut at Karnak .

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## 1. Introduction

The reconstruction <sup>(1)</sup> of historic and archaeological remains and ruins of buildings and sites is a dilemma which has long been a controversial subject among professional in archaeology conservators especially for those interesting in the material evidence of the past, where the owners of the conservative approach claim maintenance and emphasize the authenticity of materials and data (archaeology and documentary records) , pretend mislead the public unnecessarily and that liberal approach creates contention with respect to verification and emphasizes interpretive values , thereupon the adoption of the most of international conservation charters and codes of the reversible minimum interventions, however, at the same time did not put these charters rules for time and type of intervention , the extent to which he has stopped and there is no clear answer to the question as to whether incomplete buildings should be reconstructed, it was considered that the each monument is particular and different case It is be approached on its merits <sup>(2)</sup>, so reconstruction has always been one of the most

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<sup>(1)</sup> Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric , see : *The Burra Charter* (ICOMOS Australia, 1999) Article 1.8 , and it differs from restoration which means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material, see : *The Burra Charter* (ICOMOS Australia, 1999) Article 1.7, as well as differs also from Re-creation which means speculative creation of a presumed earlier state on the basis of surviving evidence from that place and other sites and on deductions drawn from that evidence, using new materials .

Above-mentioned According to *The Burra Charter* (ICOMOS Australia, 1999 and two of the most recent charters address the specific issues of authenticity and reconstruction: the Riga Charter of 2000 'On Authenticity and Historical Reconstruction in Relationship to Cultural Heritage' and the 'Nara Document on Authenticity' of 1994, It is worth setting out the definitions provided by English Heritage in 2001 in the 'English Heritage Policy Statement on Restoration, Reconstruction and Speculative Recreation of Archaeological Sites Including Ruins', which are adopted from the Burra Charter of 1999 , see also : *Catherine, W.* , Preventive conservation of ruins: reconstruction, reburial and enclosure , Chapter 5, in : *Conservation of Ruins* , edited by John Ashurst , 1<sup>st</sup> ed., Butterworth-Heinemann is an imprint of Elsevier , 2007 , p. 148 .

<sup>(2)</sup> See for example W.A. Oddy, ed. *Restoration: Is It Acceptable?* , British Museum Occasional Paper 99 , British Museum Press, London, 1994 and in *Faut-il Restaurer les Ruines?*,(Actes des Colloques de la Direction du Patrimoine.) Entretiens du Patrimoine(Paris:=

controversial and debatable issues .and so there are no many professional experts in ruins and remains conservation.

This paper runs contrary to the concept - promoting the reconstruction of buildings and site's remains and ruins particularly the ancient Egyptian ones - which has been central to much of the theory of conservation and restoration that developed and diffused worldwide <sup>(3)</sup>- that the buildings may have a greater value in its current remaining incomplete case state - where a valued building or work of art that is incomplete is a very strong one - than if it is reconstructed , where the philosophy of ‘ conserve as found ’has spread <sup>(4)</sup> ,and support this philosophy which counters reconstructions the following debates :

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=Picard, 1991);Stanley-Price, N. , The Reconstruction of Ruins: Principles and Practice, in: Conservation Principles, Dilemmas and Uncomfortable Truths , The Board of Trustees of the Victoria and Albert Museum and Alison Bracker. Published by Elsevier Ltd, in Association with the Victoria and Albert Museum London , 2009 , p.32.

<sup>(3)</sup> had been going against traditions that provide for the regular renovation of buildings of continuing religious or other functions. It is now more widely admitted that it is the preservation of the spiritual values of such buildings ( ‘ living heritage ’ ) that is more important than conservation of their physical fabric alone, and that theory was concluded and followed by the question as to how far restoration should be taken and various attitudes towards that such as disagreements over the extent to which paintings at the National Gallery of London should be cleaned, and what methods should be used, led to official Commissions of Enquiry in 1850 and 1853 and remarkably, a century later, were revived following the criticisms by Cesare Brandi and others of what they considered the Gallery’s excessive cleaning of early paintings , also in the nineteenth century John Ruskin criticized in his critique of the ‘ stylistic restoration ’ of historic buildings that aimed at reviving earlier styles rather than respecting the age-value and patina that a building had accumulated through time . see: Stanley-Price, N. , 2009 , op.cit.,p.32, 43 ; Part VI “ Cleaning Controversies, ” Issues in the Conservation of Paintings , eds. D. Bomford and M. Leonard (eds) (Los Angeles: The Getty Conservation Institute, 2004) 425 – 547 ; Part V, Restoration and anti-restoration ,in : Historical and Philosophical Issues in the Conservation of Cultural Heritage , editors Stanley-Price, N. , Talley, M.K., Jr. and A. Melucco Vaccaro ,Los Angeles: The Getty Conservation Institute, 1996 , p. 307 – 323; Stanley-Price, N. , 2009, op.cit., p.32.

<sup>(4)</sup> similar in some ways to the urge to improve or correct someone else’s text , both involve a strong desire to see an object that is complete and integral to one’s own satisfaction, rather than tolerate a creative work that has been diminished in its intelligibility . see: Stanley-Price, N. , 2009 , op.cit.,p.32.

## 2. Debates Contrary Reconstruction

2.1 the core of international views as stated in the Venice Charter (1964) and its subsequent (revised) documents and other ICOMOS essential and traditions texts including the Burra Charter (1979), the Florence Charter (1981), the Declaration of Dresden (1982), the Lausanne Charter (1990) and the Nara Document (1994), as well as, the UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) and the UNESCO Nairobi Recommendation (1976) establish a allowance against reconstruction (which includes evocation, interpretation, restoration or replication <sup>(5)</sup>) of the cultural heritage (which includes monuments, groups of buildings and sites and landscapes of cultural value as defined in Article 1 of the UNESCO World Heritage Convention) , so the recognition contrary and strictures of reconstruction <sup>(6)</sup> outweigh the justifications for expressed in international legislation and guidelines of the World Heritage Conventions and charters for example : reconstructions serve two important functions: experimental research and interpretation. They should, however, be carried out with great caution, so as to avoid disturbing any surviving archaeological evidence, and they should take account of evidence from all sources in order to achieve

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(5)English Heritage Policy Statement on Restoration, Reconstruction and Speculative Recreation of Archaeological Sites Including Ruins , February 2001 , pp.17- 29.

(6) with excepting circumstances where reconstruction is necessary for the survival of the place; where a 'place' is incomplete through damage or alteration; where it recovers the cultural significance of a 'place'; or in response to tragic loss through disasters whether of natural or human origin, and providing always that reconstruction can be carried out without conjecture or compromising existing *in situ* remains, and that any reconstruction is legible, reversible, and the least necessary for the conservation and presentation of the site, see: The Riga Charter (The delegations of Estonia, Latvia, Lithuania, Belarus and Ukraine, together with colleagues from ICCROM, Canada, the United States of America and the United Kingdom, assembled here in Riga, Latvia, from 23rd to 24th October, 2000, for the Regional Conference on *Authenticity and Historical Reconstruction in Relationship to Cultural Heritage*, initiated by ICCROM, at the invitation of the Latvian National Commission for UNESCO and the State Inspection for Heritage Protection of Latvia, in co-operation with the World Heritage Committee, and the Cultural Capital Foundation of Latvia,) and see : English Heritage Policy Statement on Restoration, Reconstruction and Speculative Recreation of Archaeological Sites Including Ruins , February 2001 , pp.17- 29.



authenticity. Where possible and appropriate, reconstructions should not be built immediately on the archaeological remains .

**2.1.2** Charter of Venice (1964) states with regard to the reconstruction of archaeological sites (Article 15): ‘ all reconstruction work should however be ruled out. Only anastylosis, that is to say, the reassembling of existing but dismembered parts, can be permitted. ’

**2.1.3** the Lausanne Charter for Archaeological Heritage Management (1990) (Article 7) recognizes the uses of reconstructions for experimental research and interpretation .

**2.1.4** and in many subsequent (revised) documents of the Venice Charter such as the revised version (1999) of the Burra Charter of Australia ICOMOS, states:

Burra Charter (Article 1.8) states acceptable reconstruction on archaeological sites only in ( ‘ the reassembling of existing but dismembered parts ’ ) .

Also Article 20. (20 .1.) reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence

to reproduce an earlier state of the fabric. In rare cases, reconstruction may also be appropriate as part of a use or practice that retains the cultural significance of the place.

20 .2. Reconstruction should be identifiable on close inspection or through additional interpretation.

**2.1.5** most recently, a regional meeting in Eastern Europe has agreed the Riga Charter (2000) which has wider application and re-establishes the presumption against reconstruction except in very special circumstances and re-iterates that it must in no way be speculative .

**2.1.6** international conventions legislation and guidelines-generally contain little reference to reconstruction, but discourage narrowly reconstructing incomplete buildings ( revise for example international consensus, the obligations of UNESCO’s World Heritage Convention (1972) , and generally the reconstruction of

archaeological remains of buildings or sites or districts is permitted only in particular estates (the Committee stressed that reconstruction is only acceptable if it is carried out on the basis of complete and detailed documentation of the original and to no extent on conjecture). (para 24(b)(I).

**2.1.7** for example English Policy Background : general guidance and policy therefore is that speculative reconstruction is wrong because it may damage original fabric and may affect authenticity<sup>(7)</sup> ,also there is the potential damage that substantial reconstruction or recreation might do to the original fabric. For these reasons even valid additions to a monument must be 'reversible' so that the original fabric is available for reassessment , also the proposals for reconstruction are intended in whole or in part to improve a site's interpretation, it is essential to consider whether the same result can be achieved by other means , also any proposals for reconstruction must be acceptable in terms of their impact not only upon the site itself but also on its setting ,they must therefore be acceptable also in the context of the development plan.

**2.2** The incoming of virtual realities technology and other multimedia facilitate making hypotheses of the buildings and sites offer a new way of seeing the past without requiring any intervention into the physical remains on-site .

**2.3** the possibility of mislead of public visitors , scholars and even professionals in case of incorrect or inaccurate reconstructions - which are based on a conjecture , not on extensive documentations - growing an ethical case of imparting inaccurate information and

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<sup>(7)</sup> PPG 15 (paras C5 - C6), the British Standard on The principles of the conservation of historic buildings (BS7913: (1998); paras 6.2.4 (e), 7.3.2.1-3), and in English Heritage's own publications (e.g. Brereton, Principles of Repair, pp 5-6) (the Draft Guidelines) , These general principles hold good for both buildings in use and for ruins and archaeological sites. Restorations or reconstructions of ruins and archaeological sites are more problematic than those of buildings in use, because less evidence survives and the potential for speculative work is higher. Reconstruction can also frequently be more destructive of significant fabric or structures. There can also be more pressure for recreations of structures or parts of structures .

knowledge <sup>(٨)</sup> , to say nothing of the possibility of puncture , render and let slip of the inaccessible archaeological testimonies on which are depended when reconstructed , destroying or limiting options of future scientific research when find additional evidences in future <sup>(٩)</sup> .

in addition to what explained above ; the disarray and pulling apart of landscape and context values , where reconstructed building in a ruined archaeological site and landscape could distorts visual and spatial relationships , and also for instance If only one or two buildings are reconstructed on a flat archaeological site and context, they tend to take visitors notice , attention and desire to circulate around this one or two buildings with possibility of enhancing an appreciation of the original form of those particular buildings but the inequalities of scale will risk diminishing an understanding of the site as a whole , such as in the site the temple of Hatshepsut at Dier El-Bahary in Luxor (according to this view point)getting distortion of site interpretation where the complexities of long archaeology are discontinued and ensconced incase of

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<sup>(٨)</sup> for example the reconstruction of Pyramid B at Tula in Mexico depending on conjecture and comparative testimony from other pre-Colombian sites has misled the professional, scholars and lay publics , see : Molina-Montes, A. “ Archaeological Buildings: Restoration or Misrepresentation, ”

Falsifications and Misreconstructions of pre-Columbian art, *Dumbarton Oaks*, pp. 14 – 15 ; *October 1975* , ed. E.H. Boone (Washington, DC: Dumbarton Oaks Institute of Meso-American Studies, 1982) 125 – 141, also see : Stanley-Price, N. ,op.cit. , 2009 , p.38.

<sup>(٩)</sup> for example The ICOMOS Charter for the Protection and Management of the Archaeological Heritage (1990), Article 7, evidently has this risk in mind: ‘ Where possible and appropriate, reconstructions should not be built immediately on the archaeological remains and should be identifiable as such. ’ The horizontal displacement of any reconstruction work to another site as ‘ experimental archaeology ’ avoids this problem, as does ‘ vertical displacement ’ to some extent – I is referred to the practice in Japan of leaving a layer of earth or concrete to separate the original subsurface remains from the foundations of the reconstruction , see : Kanaseki, H. “ Reconstructing a Ruin from Intangible Materials, ” *Nara Conference on Authenticity* , UNESCO World Heritage Centre, Agency for Cultural Affairs Japan, ICCROM, ICOMOS, ed. K.E. Larsen (Trondheim: Tapir, 1995) 337 – 338; Okamura , K. and Condon, R. “ Reconstruction Sites and Education in Japan: A Case Study from the Kansai Region, ” *The Constructed Past. Experimental Archaeology, Education and the Public* , *One World Archaeology* 36, eds. P.G. Stone and P.G. Planel (London: Routledge, 1999) pp.63 - 75 23 , , also see : Stanley-Price, N. ,op.cit. , 2009 , pp.38-39 , 45.

reconstructing a single period feature sacrificing the evidence of other periods buildings and attention to them in the site <sup>(10)</sup> .

**2.4** the reconstructions tend to reflect and express about their creators, rather than being honest re-procreations of the original which is prone to other influences <sup>(11)</sup> with difficulty or sometimes impossibility of achieving and preserving authenticity, couldn't-with few exceptions-fulfill the analogical requests of the international conservation charters and codes of the reversible minimum interventions that they be based on full, complete and extensive documentation, and include conjecture to some extent- because the remains could hard provide all required documentation <sup>(12)</sup> .

**2.5** financial problems particularly the reconstruction are very cost projects and political authorities focus on spectacular buildings and

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<sup>(10)</sup> such as At Knossos the visitor and even the scholar can forget that Knossos is the largest Neolithic site on Crete which is one of the two largest Greek and Roman sites on the island., see : Papadopoulos, J.K. " Knossos, " The Conservation of Archaeological Sites in the Mediterranean Region: an International Conference organized by the Getty Conservation Institute and the J. Paul Getty Museum, 6 - 12 May 1995 , ed. M. de la Torre (Los Angeles: Getty Conservation Institute, 1997) 115. and on the Acropolis of Athens, almost all evidence of post-Classical building had already been demolished in the

nineteenth century as part of the post-Independence glorification of the remains of Classical Greece, thus facilitating the current project, revise : other examples of political pressures requirement a specific historical occupation phase to be emphasized on a multi-period site, see: Mallouchou-Tufano, F. " Thirty years of anastylosis work on the Athenian Acropolis, 1975 - 2005, " *Conservation and Management of Archaeological Sites* , Volume 8, Number 1(2006): pp.27 - 38; and for example, Killebrew, A. " Reflections on a Reconstruction of the Ancient Qasrin Synagogue and Village, " *The Reconstructed Past. Reconstruction in the Public Interpretation of Archaeology and History* , ed. J.H. Jameson (Walnut Creek: Altamira Press, 2004)pp. 127 - 146 ; Stanley-Price, N., op.cit. , 2009 , p.39 , 46

<sup>(11)</sup> See for instance: Lounsbury, C.R. " Beaux-arts ideals and colonial reality: the Reconstruction of Williamsburg's Capitol 1928-1934, " *Journal of the Society of Architectural Historians* , 49.4 (1990): 373 – 389 ; Palyvou, C. " Architecture and Archaeology: the Minoan Palaces in the Twentyfirst Century, " *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives* , Cotsen Advanced Seminars 1, eds. J.K. Papadopoulos and R.M. Leventhal (Los Angeles: The Cotsen Institute of Archaeology, University of California at Los Angeles, 2003) 218 – 219; See also the striking photograph of the North Lustral basin at Knossos as restored in 1929 reproduced here as Figure 4.1; Stanley-Price, N., op.cit., 2009 , p.37.

<sup>(12)</sup> also compare the monumental scale of the reconstructed Stoa of Attalus in the Athens Agora, already referred to the Gymnasium of the Baths at Sardis and Pyramid B, Tula, Mexico, as restored by Jorge Acosta, 1941 , see Stanley-Price, N. , op.cit. , 2009 , p.40.

sites more than requisite ones , the decision and the criteria that define their scope and result, are not usually of the views of the professionals and sometimes had been undertaken for corruption and political reasons (revise many cases of historical Cairo in Egypt and reconstruction project of Babylon in Iraq <sup>(13)</sup> ).

**2.6** the buildings and sites remains and ruins are more emotional of archaeological and historical - if they are let as they remained - than if they are reconstructed .

But reconstruction of remains and ruins - which represents in many respects an extreme example of restoration for buildings and sites from the past whose existence was documented primarily from their excavated remains or their documents plus comparative analysis before being reconstructed through references - literary or pictorial - to their previous existence, and it is mainly through their insubstantial visible remains that they have become known again <sup>(14)</sup> - that are well thought out , researched and do minimal damage or destruction to the original archaeological remains - including measures to preserve any remains , materials, features, and spatial relationships based on the accurate duplication of features documented through archaeology conservation, archival research rather than on conjecture and meets tolerable standards of authenticity and pragmatism and does not come up to unacceptable limits of conjecture and supposition and preserves authenticity the main role of archaeology conservation - should be considered as

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<sup>(13)</sup> Parapetti, R. “ Recenti Interventi sul Patrimonio Archeologico in Iraq, ” *Restauro* , Volume 19, Number 110 (1990):pp. 94 – 102. also see : Stanley-Price, N. , 2009 , op.cit., pp.40- 41, 46.

<sup>(14)</sup> This paper concentrates on buildings and sites remains which differ from those have not documents or references whose reconstructions are often referred to as re-creation are highly conjectural.) , also differ from those buildings and sites that have been reconstructed immediately following a natural disaster or a war , these differ because there usually exists ample documentary evidence of the destroyed buildings , and differ from vanished buildings and sites , standing on the basis of shabby document and evidences, for more see : H. Stovel, “ The Riga charter on authenticity and historical reconstruction in relationship to cultural heritage: (Riga, Latvia, October 2000), ” *Conservation and Management of Archaeological Sites* , Volume 4. Number 4, (2001): 240 – 244; N. Dushkina, “ Reconstruction and its Interpretation in Russia – 2, ” *Proceedings of the Conservation: Principles, Dilemmas and Uncomfortable Truths* .

interpretive , preservation, management and educational tools , according to some of the competent institutions and agencies of conservation <sup>(15)</sup> .

### **3. Warrants for ancient Egyptian buildings and sites reconstruction 's remains and ruins <sup>(16)</sup>**

**3.1** Ancient Egyptian remained sites and buildings, have special problems (the success or failure of any scheme of reconstruction must be judged in its local, regional and national contexts <sup>(17)</sup>), they have considerable archaeological and historical importance, values and significances which would be lost in wholly or partially particularly in sequence of continuous neglect or demolition incidence , specially with the presence of most of these ruins and remains on the semi-isolated outskirts of the desert areas far from the control of officials from the Ministry of State of Antiquities and under weak guards- with low non-rewarding salaries - are responsible for large ample areas, and with low cultural and archaeological awareness, and under low financial and technical possibilities in general <sup>(18)</sup> , so :

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<sup>(15)</sup> such as the United States National Park Service (NPS), Jameson, John H., Jr., Introduction: "Archaeology and Reconstructions". In *The Reconstructed Past: Reconstructions in the Public Interpretation of Archaeology and History*, edited by John H. Jameson, Jr., Walnut Creek, AltaMira Press, 2004, p. 1-18.

<sup>(16)</sup> According to the Lausanne Charter International Charter for Archaeological Heritage Management (1990) reconstructions serve two important functions: experimental research and interpretation, It should be , however, be carried out with great caution, surviving archaeological evidence, and they should take account of evidence from all sources in order to achieve authenticity. where possible and appropriate, reconstructions should not be built immediately on the archaeological remains, and should be identifiable as such .

<sup>(17)</sup> see: *Catherine, W.* , op.cit. , 2007 , p. 149 .

<sup>(18)</sup> as well as the great burden borne by that ministry the large amount of archaeological sites and buildings , ruins and remains, whether underground or above that in need to detection , recording and preservation, and finally the infirmity application of domestic laws, which courage agricultural and population encroachment and the location of those remnants plus the damage caused by the establishment of irrigation, industrial projects, and other civil projects that will damage and sometimes devastating for the ancient Egyptian remnants and ruins of sites and buildings .

**3.2 Site and buildings conservation and preventive conservation** ; reconstruction, by showing that the site is being actively used, helps protect it from development pressures; alternatively, it may serve to stabilize precarious ruined structures , and If a salvage excavation , remains or ruins has taken place in advance of modern urban , industrial activities , irrigation projects , commercial development, and continuous neglect or demolition incidence , reconstructing the building whose remains have been excavated ,declared or survived can prevent the alternative development going ahead <sup>(19)</sup> (preventive conservation <sup>(20)</sup>) being justified in order to stabilize these remains or ruins <sup>(21)</sup>, then the reconstruction of these remains and ruins primarily achieve protection and preventive conservation of their risk- prone conditions that mentioned above (for example prevent immovable remains from further decay , and prevent movable remains from neglect, demolition or robbery), where concern for preservation through reconstruction that led to his interest in site presentation, rather than the more common path of a concern for site presentation leading to reconstruction , and

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<sup>(19)</sup> Okamura, K. and Condon, R. “ Reconstruction Sites and Education in Japan: a Case Study from the Kansai Region, ” *The Constructed Past. Experimental Archaeology, Education and the Public* , One World Archaeology 36, eds. P.G. Stone and P.G. Planel (London: Routledge, 1999) 63 – 75.

<sup>(20)</sup> The reconstruction is a part of conservation of an archaeological site or a building may potentially involve an element of restoration or reconstruction as well as repair, alteration, use, management and interpretation, and the aim of conservation –including reconstruction –is to retain the values of the site and to avoid damage, see .:

<sup>(21)</sup> for stabilization of ruins ; the classic case of reconstruction (or reconstitution as he called it) being justified in order to stabilize excavated ruins is Arthur Evans ’ work at Knossos,in fact, as C. Palyvou perceptively observes, it was Evans ’ concern for preservation through reconstruction that led to his interest in site presentation (aided also by his communication qualities as a journalist), rather than the more common path of a concern for site presentation leading to reconstruction, then the above-mentioned points resumes some of the main warrants that have been justified for reconstruction of buildings from excavated remains, see : A.E. Evans, “ Works of reconstitution in the palace of Knossos, ” *Antiquaries Journal* Volume 7 (1927): 258 – 267 ; 16 . C. Palyvou, “ Architecture and Archaeology: The Minoan Palaces in the Twentyfirst Century, ” *Theory and Practice in Mediterranean Archaeology: Old World and New World Perspectives* , Cotsen Advanced Seminars 1, eds. J. K. Papadopoulos and R.M. Leventhal (eds) (Los Angeles: The Cotsen Institute of Archaeology, University of California at Los Angeles, 2003), 205 – 233.

these points summarize some of the main justifications reconstructing buildings from excavated remains and ruins .

### **3.3 the reconstructions provide us with :**

**3.3.1** a three dimensional encounter with history to which people can relate and comprehend within their own experience.

**3.3.2** spatial and dimensional reality and intimacy to material culture, a sense of space for the visitor that cannot be accomplished by story telling or two-dimensional and even 3-dimensional scale models , It is a way is not always successful <sup>(22)</sup>.

**3.3.3** three-dimensional “reality” and scale , 3D models, virtual reality and (game engines) as tools for supporting archaeology and the reconstruction of ancient Egyptian remained sites and buildings physically and esthetically has resulted in a great variety of reconstructions .

So the reconstructions of the ancient Egyptian buildings and Site's remains and ruins are living attempts for sense of the past , and bring it to life for the public, as long as they are presented and understood as the attendant generation’s attempt to resurrect and to memorialize the antecedents with using technology in artistic expression to convey archeological information and insights to the public to create impressions that enable visitors to make emotional connections to archaeological and historical records that help them to understand and relate to the context, meaning, and significance of the resource also achieve more effective interpretations, via reaching out to our site managers, interpreters, tour guides and educators and arming them with the knowledge and understanding

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<sup>(22)</sup> for example : the Poet’s House Restored.’ Sir William Gell, *Pompeiana: The Topography, Edifices and Ornaments of Pompeii, the Result of the Excavations where technologies of diorama and cinema.*, they promise to finish the picture, proclaim an authoritative vision, and to preserve evidence of fragile reality, but ironically, some of those reconstructions are already defunct, long predeceasing their Pompeian models. Their builders are, apparently, repeatedly surprised by the unsatisfactory nature of the reconstruction which cannot find its own purpose (as opposed to those, like Getty’s villa, which are given their own function)-empty and lifeless, its over-determinism rejecting the imaginative contribution of the visitor , see : Hales , S. and Paul , P., *Introduction: Ruins and Reconstructions* , in : *Pompeii in the Public Imagination from Its Rediscovery to Today (Classical Presences)* , Oxford University Press, USA , 2012.



of how archaeology can contribute to people's sense of identity and ultimately improve their lives.

In the present-day current of ancient Egyptian sites and buildings tourism, we can hope that, in the future, only reconstructions that are well researched and do minimal damage to them will be considered as management and education alternatives<sup>(23)</sup>.

We have not depend only on traditional methodologies and analytical techniques in our reconstruction , but we have to explore the interpretive potential of cognitive imagery that archeological information , buildings and sites can inspire , we have to use the cogency of artistic expression to impart archeological information and insights to the public , we have use the archeological record to enhance the visitors experience, and, working with our tour guides and site managers to create opportunities for visitors to form intellectual and emotional connections to the meanings , values , significance and context of archeological information and the people and events that created them, tell the stories of Ancient Egypt's cultural heritage attractively, thereupon subsequently archaeology can contribute to people and archaeology tourism 's sense of identity and ultimately improve their knowledge and experience , reaching to reconstructions that are will be considered as management and education substitutes .

**3.4** even for the concept which has been represented to much of the theory of conservation and restoration that developed and diffused worldwide that the buildings may have a greater value in its current remaining incomplete case state - as mentioned earlier - it -at the same time - did not put these charters rules for time and type of intervention , the extent to which he has stopped and there is no clear answer to the question as to whether incomplete buildings should be reconstructed, it was considered that the each monument is particular and different case It is be deemed on its merits , in the

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<sup>(23)</sup> Jameson, John H., Jr., 2004, op. cit., p. 1-18.

same time also there are World Heritage Convention cite , justify and accept reconstruction only in exceptional circumstances and with specific controls, and restrictions set by (24) .

**3.5 as interpretive , presentable and educational tools ;** regarding the reconstruction process can be a corroborative research project, and the resulting building or site is an important educational tool for visitors , If interpreted extensively , this justification holds true for the great majority of reconstructed sites , a reconstructed building or site has the potential to have a high educational and research value, the comprehensive process of researching, testing and building unfailingly leads to a better understanding of the past by specialists and a better benefit by non-specialists from the new knowledge collected during the process and from viewing the built embodiment of it, so the reconstructions can play an important role as a background for public interpretation and education according to the firm linking values between environment and buildings & sites , whereas the ancient Egyptian buildings and sites remains sites are not just great iconic feature, monuments and places or even context , but they include and bear numerous of importance and values for more sectors of visitors either locals, site visitors or the larger public, interpretation and education can explain their entire meanings particularly reconstructions can produce and contribute - as a background- in forming intellectual and emotional connections - to the values and significance of archaeological buildings and sites - with multicultural audiences according to modern public interpretation programs which look for introducing a multifarious of colors to multicultural audiences that result in a greater understanding and appreciation of past activities, as well the presentation of the archaeological buildings and sites itself - via reconstructions - to the general public is an ultimate method of promoting an understanding of the archaeological origins and development of

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(<sup>24</sup>) see: Stanley-Price, N. , 2009 , op.cit.,p.34.

modern societies , in addition to be the most important means of promoting an understanding of the need for its protection , also presentation and information should be conceived as a popular interpretation of the present state of knowledge, and it must therefore be revised frequently, taking account of the multi-featured approaches to an understanding of the past <sup>(25)</sup> .

**3.6 retaining - partially or wholly - the archaeological , historical , architectural , esthetical , symbolic and national values ;** where the reconstructions of these ancient Egyptian buildings and sites have returned them to their previous existence, and it is mainly through their insubstantial visible remains that they have become known again through bringing them to life for the public, retaining , maintaining and revealing - partially or wholly – their archaeological , historical , architectural , esthetical , symbolic and national values significances .

**3.7 attraction visitors and tourists ;** the reconstruction of ancient Egyptian buildings and sites of attracts many visitors who would not otherwise visit them , thus can creates national income for the public authority (mainly the Ministry of State of Antiquities that manage them plus tourism associations) or private authorities (tourism companies ) and individuals <sup>(26)</sup> , the striking examples in this point are the reconstruction of temple of Queen Hatshepsut at el-Deir el-Bahari (west Thebes , Luxor) and the reconstructions in

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<sup>(25)</sup> loc.cit.

<sup>(26)</sup> the aims of the considerable massive reconstruction of pre-Hispanic sites in Mexico, Guatemala, Belize and Bolivia (Tiwanaku) in the 1950s and 1960s was attraction tourists and tourism promotion , as well as demonstrating national pride in the pre-Colombian past , see : A. Molina-Montes, “ Archaeological Buildings: Restoration or Misrepresentation, ” in ed. E.H. Boone, *Falsifications and Misreconstructions of pre-Columbian art, Dumbarton Oaks* , 14 – 15 October 1975, (Washington, DC: Dumbarton Oaks Institute of Meso-American Studies, 1982) 125 – 141; D. Schjerve, *La Conservación del Patrimonio Cultural en América Latina. Restauración de Edificios Prehispánicos en Mesoamérica: 1750 – 1980* (Buenos Aires: Instituto de Arte Americano e Investigaciones Estéticas “ Mario J. Buschiazzo, ” 1990) ; Stanley-Price, N. ,op.cit. , 2009 , p.36-37.also the proposed reconstruction of the Hwangnyongsa Temple in Gyeongju (Republic of Korea) has aimed the economic development of the city, especially through increased tourism, and not its potential re-use as a Buddhist temple , see : Stanley-Price, N. ,op.cit. , 2009 , p.36-37

the Open Air Museum at Karnak (east bank , Luxor) the white chapel of Senusret I , the Red Chapel of Hatshepsut and the Egyptian Alabaster Chapel of Amenhotep I, which without their reconstruction many visitors who have been attracted to them would not otherwise visit them , thus have contributed in national income increase .

### **3.8 the gap between the statements of Charters and the World Heritage Convention guidelines and actual practice of reconstruction**

Although the international reference and standard documents and the crescent number of Charters and its subsequent (revised) documents guiding conservation (reconstruction) practices have had a strong weight and restraints on these practices , but within the field of built heritage there is a particular case ; reconstruction that exposes a visible deviation and variance between principles and practice and application, where in reality, the strictures of these international documents have prevented neither the continued practice of reconstruction nor the inscription of sites with reconstructed buildings on the World Heritage List nor new reconstructions on sites already so inscribed. It is striking that a recent volume of essays on site reconstructions contains but one reference to the Charter of Venice, and mentions World Heritage only in the context of sites inscribed on the List that feature reconstructions <sup>(27)</sup>, so there is a gap between the statements of Charters and the World Heritage Convention guidelines and actual practice , thus on-site reconstructions are common where

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<sup>(27)</sup> for example the prehistoric Aztec Ruins and Mesa Verde in the USA. It is as if such reconstructions are justified for their public interpretation value whether or not they meet the criteria of international restoration documents , in reality, and not only in the USA, despite the almost universal consensus of the charters against reconstruction unless firmly based on evidence, it still holds a strong appeal - both for cultural heritage managers and for the public, so there is a duplicity and ambivalence between justification for the reconstruction of buildings and sites remains and ruins and the arguments against the practice, see: Jameson, John H., Jr., 2004, op. cit., pp. 7-8.

archaeological ruins have been partially rebuilt, and roofs and columns have been re-erected all time .

#### **4. So the general Criteria for reconstruction :**

**4.1** Reconstruction should retain the significance of the site partially or wholly .

**4.2** Must be based on a full understanding of the monuments and buildings of a site including buried and above ground structures, as well as landscape etc. (which includes a site description , its significance and its impressionable analysis and the future management , repair and overall conservation plan and its objectives and proposals.),and the assessment of significance either archaeological , historical , aesthetical , artistic , architectural , symbolic , national or technological, as well as landscape, natural, or other values .

Must not be hypothetical or speculative but based on the best available evidence .

**4.3** preparing a detailed investigations , tests , surveys and analysis of the building or the site which will be related to the proposed reconstruction <sup>(28)</sup> .

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<sup>(28)</sup> such as proper nicety survey and analysis of the building or site should normally take the form of a set of plans and elevations capable of resolution at an appropriate scale (usually at least 1:20 or 1:50) identifying surviving remains or ruins , those drawings should be analyzed to identify all previous phases of alteration ,a short report should be prepared to accompany the drawings, placing that detailed analysis in the context of the overall understanding of the site and its significance, set out in the Conservation Plan These drawings should be used as a basis for a set of drawings explaining what is proposed, which will clearly identify the relationship between existing remains and what is proposed, the drawings should be accompanied by a method statement and specification for work , the method statement should explain what measures will be taken to protect existing remains during works, as well as details of the materials and techniques to be used in the new work , the method statement should also explain what arrangements will be made for the ongoing analysis of the structure during works, and for the creation of a proper record of the research, analysis, investigation and work , It is likely a archaeology conservator will need to be part of the team supervising the work ,the role of this conservator will be to update the base drawings as new information is revealed, and to feed the results of their analysis into the day to day decision making process , at the end of the works, they should prepare a final report detailing what has been found and the work undertaken ,this will in turn feed into future revisions of the conservation=management plan, see : English Heritage Policy Statement on Restoration , Reconstruction and Speculative Recreation of Archaeological Sites Including Ruins , February 2001, Annex 6.

**4.4** Must not damage or impact on remaining monumental or the original or archaeological context of the site where select the least damaging option minor losses of monument , before working up detailed designs, since these should be available for future study and research , their implementation should not negatively affect archaeological contexts elsewhere including stratified deposits below ground as well as visible structures above it , nor should they adversely affect the setting or appearance of the site.

**4.5** We have to attach to the information available at the site a full analysis of the proposed reconstruction against available evidence from the site or building plus other evidences which can be useful, and more valuable .

**4.6** We have to implement a long-term benefits analysis of the of the proposed reconstruction , which should relate to the defined values of the site and should identify both direct benefits to the site as well as other wider benefits and an assessment of the research benefits of the proposed reconstruction .

**4.7** Reconstruction should be clearly distinguishable from original remains and the grounds for reconstruction should be clearly explained to visitors <sup>(29)</sup> and esthetically acceptable , so it must be vital, practical and has positive impact on the site's future maintenance and management .

**4.7** Reconstruction must be reversible and can be removed if they are proved to be not appropriate.

**4.8** Reconstruction must achieve educational , interpretational and research goals .

**4.9** Reconstruction must a part of an overall conservation strategy for the site with approval and acceptance of Conservation Plan or Conservation Statement for the site in terms of the impact of the reconstruction on the overall value of the site as well as directly on its archaeological content <sup>(30)</sup> .

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(29) English Heritage Policy Statement on Restoration, Reconstruction and speculative Recreation of Archaeological Sites Including Ruins , February 2001 , pp.17- 29.

(30) loc. Cit..

## **5. Some proposed rules for ancient Egyptian buildings and sites reconstruction**

Regarding to existence of gap between the statements of Charters and the World Heritage Convention guidelines and actual practice – as mentioned earlier - and to make a balance between warrants for reconstruction and arguments against it.

**5.1** Ancient Egyptian remained sites and buildings, have special problems, they have considerable archaeological and historical importance, values and significances which would be lost in wholly or partially particularly in sequence of continuous neglect or demolition incidence , especially with the presence of most of these ruins and remains on The semi-isolated outskirts of the desert areas far from the control of officials from the Ministry of State of Antiquities and under weak guards- with low non-rewarding salaries - are responsible for large ample areas, and with low cultural and archaeological awareness, and under low financial and technical possibilities in general, as well as the great burden borne by that ministry the large amount of archaeological sites and buildings , ruins and remains, whether underground or above that in need to detection ,recording and preservation, and finally the infirmity application of domestic laws, which courage agricultural and population encroachment and the location of those remnants plus the damage caused by the establishment of irrigation , industrial projects, and other civil projects that will damage and sometimes devastating for the ancient Egyptian remnants and ruins of sites and buildings .

not mention carrying out a clumsy, an inappropriate repairs or ignorant restorations .

**5.2** depending only a few and weak excavated evidence in reconstructing building -must be considered a recreation more than reconstruction , so we have not depend on strong evidences either available evidence from the site or building or other evidences which can be stronger , with preparing enough investigations ,

tests, surveys and analysis of the building or the site for the proposed reconstruction .

**5.3** The remaining evidence for the former building or site must be fully documented, preserved and always available for the next investigators and generations <sup>(31)</sup> .

**5.4** Reconstruction must achieve better appreciation of the values (significances or importance) of building or buildings of a site (including the landscape value) of this site than if these buildings are left in a ruined state (the ruin as a source of inspiration or as a memorial are more emotional of archaeological and historical - if they are let as they remained - than if they are reconstructed) .

**5.5** Reconstruction must not destroy the remaining evidence of multi-ages of the former building or a site (must respect the integrity of a building or a site that has developed through time and in case of removal evidence of any one age or period in the favor of the reconstruction of other evidence age or period must be justified and fully documented and make them impossible to access, avoiding any negative impact on the original remains such as displacement vertically or horizontally.

**5.6** Reconstruction must achieve direct and indirect benefits to the site or building ; esthetical , preventive, structural, educational , interpretational and research scopes .

**5.7** Reconstruction must a part of an extensive approval conservation plan and with acceptance of national and international conservation experts.

**5.8** The strengths and limitations of these evidences in the reconstructions must be interpreted clearly without mislead or misinform to all public visitors .

**5.9** Reconstruction must be reversible and can be removed if they are proved to be not appropriate.

**5.10** wrong or erroneous reconstruction in the past could be preserved and retained as they are reconstructions as part of the

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<sup>(31)</sup> A scientific obligation to allow (built) hypotheses to be verified or rejected, see: Stanley-Price, N. , 2009 , op.cit.,p.41.



history of ideas , possessing their own value in reflecting the history of taste and ideas <sup>(32)</sup>

**5. 12** Reconstruction must not blockade conveying to visitors accurate information , data and knowledge namely the fidelity of a reconstruction to the current state of knowledge, so we have to apply visibility of the intervention such as by applying differences in the technique or texture of materials or more strikingly by using quite modern materials .

## **6. An overview of some reconstruction practices**

### **6.1 The reconstruction of temple of Hatshepsut at el-Deir el-Bahari**

The Hatshepsut's temple had not been a victim of defects of the backdrop natural rock only but also of usurpation of monuments, destruction related to Hatshepsut's *damnatio memoriae* , destruction of the monuments of lesser figures not related to actions against Hatshepsut, destructions of the Amarna period, destructions that are not dated, and repairs carried out by later pharaohs, usually regarding erasures of Amun<sup>(33)</sup> , and regarding destruction of the temple the ruins were subsequently used as a burial ground in the Third Intermediate Period also the shaft tombs hewn into the rocky floor of the temple's chapels held the remains

of high priests of the temples of Amun and Montu in Karnak and members of the royal family in the times of the Twenty-third

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<sup>(32)</sup> as in Evans ' work at Knossos, see: Stanley-Price, N. , 2009 , op.cit.,p.42 .

<sup>(33)</sup> The destruction of Amun's figure in Hatshepsut's temple at Deir el-Bahari, for example, is likely attributable to persons acting for Akhenaten in the Amarna revolution, not to Tuthmosis III or his successor in their separate action against the image of Hatshepsut and her claims to the pharaoh's position and power. The destruction of Senenmut's tomb reliefs and artifacts related to his role in Hatshepsut's court has been attributed by separate scholars to Tuthmosis and to Hatshepsut. Furthermore, the value of the art within the temple made specific blocks targets for thieves and archaeologists who behaved very much like thieves. Queen Ahmose's head, for example, from the Birth cycle at Deir el-Bahri, disappeared into the Castle Museum of Norwich in 1843, where it remained lost in storage until sold with other artifacts to Liverpool in 1956 , see : Dodson, Aidan. "Two Royal RELiefs from the TEmple of Deir el-Bahari." *The Journal of Egyptian Archaeology* 74 (1988): 212.

and Twenty-fifth Dynasties, So far 15 burial shafts have been discovered , all were plundered already in Antiquity, but based on surviving elements of the tomb equipment, it was determined that the vizier Padiamonet was buried in the Chapel of Hatshepsut during the reign of Piye of the Twenty-fifth Dynasty , the disturbed and mixed fill of the shafts has also yielded elements of the furnishings from the Coptic church that once occupied the Chapel of Hatshepsut <sup>(34)</sup> .

The last , long and large reconstruction of the unique , three colonnaded terraced temple of Queen Hatshepsut at el-Deir el-Bahari at Qurna at the west bank of Thebes (the modern Luxor) in the autumn of 1961 by the (ESA) in conjunction with (PCMA) <sup>(35)</sup> ,

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<sup>(34)</sup>see : Zbigniew E. Szafranski , Deir el-Bahari Temple of Hatshepsut ; The Temple of Queen Hatshepsut at Deir el-Bahari , Ministry of Culture , The Supreme Council of Antiquities in Association with The Polish Centre of Archaeology , Cairo, 2000; Queen Hatshepsut and her Temple 3500 Years Later , Editor : Zbigniew E. Szafranski , Warsaw University , Polish Centre of Mediterranean Archaeology in Cairo , Agencja Reklamowo-Wydawnicza A Grzegorzcyk, Polish-English Edition , 2001.

<sup>(35)</sup> (ESA) Egyptian Service of Antiquities , (PCMA) the Polish Centre of Mediterranean Archaeology of Warsaw University in Cairo , when in 1961 Kazimierz Michałowski sent Polish scholars and conservation specialists to Deir el-Bahari, were the latest in a long series of travelers and researchers visiting the site , before that ;the first to leave a description of the abandoned Coptic monastery that had once stood on top of the ruins of the temple of Hatshepsut was the famous English explorer Richard Pococke who stopped here in 1737. Jean-François Champollion copied the texts from the temple's granite portals and the walls of the Main Sanctuary of Amun-Re. John Gardner Wilkinson introduced the name *Deir el-Bahari*(Northern Monastery) in world literature in 1835. Richard Lepsius followed with the identification of the ruins as a temple of Hatshepsut. Regular excavations were started by Auguste Mariette, the founder of the Egyptian Antiquities Service, after which two institutions of great merit for Egyptological studies moved in. The first was a mission of the Egypt Exploration Fund (EEF) directed by Edouard Naville, Between 1893 and 1899 it managed to clear the Upper Terrace and most of the buried courtyards, chapels and colonnades, Roofs were installed over the Portico of the Obelisks and the porticoes of the Middle Terrace. The walls of the Main Sanctuary of Amun-Re were reinforced and a provisional protection was carried out of the Sun Altar, Royal Cult complex, Hathor Chapel and Lower Northern Portico, ten years later Herbert E. Winlock arrived in Deir el-Bahari at the head of a mission of the Metropolitan Museum of Art which stayed there for the next twenty years (1911-1931), penetrating the terraces and the two ramps of the uncovered temple, see : Zbigniew E. Szafranski , Deir el-Bahari Temple of Hatshepsut ; The Temple of Queen Hatshepsut at Deir el-Bahari , Ministry of Culture , The Supreme Council of Antiquities in Association with The Polish Centre of Archaeology , Cairo, 2000; Queen Hatshepsut and her Temple 3500 Years Later , Editor : Zbigniew E. Szafranski , Warsaw University , Polish Centre of Mediterranean=

before this time and after about a century since the complete discovery of this temple - of Thebes formation limestone plateau amphibackground <sup>(36)</sup> - presented only the reconstructed lower and middle terraces .

This temple and the other terraced temples - of Mentuhotep Nebhepetre and Thutmose III - which are architectural rock complex at el-Deir el-Bahari , it was built of local (Thebes formation) limestone blocks which quarried from quarries situated on the way the temple dominates the valley (**figs. 1- 4**) .

For defects of the backdrop natural rock the temple has been suffering of several paleo-landslides , where the very large slump-block slide originating in the Theban hills to the northwest as a result of slumping and translational block sliding of a large limestone block of the competent bedrock Thebes Formation, in consequence of underlain by the weak poorly indurated unstable shale of Esna Shale <sup>(37)</sup> this causing parts of a hillside to break apart has happened in the past, and has done smash in sequence of falling

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=Archaeology in Cairo , Agencja Reklamowo-Wydawnicza A Grzegorzcyk, Polish-English Edition , 2001; GODLEWSKI, W., *Le monastère de St Phoibammon*, Deir el-Bahari V, Varsovie 1986 ; WYSOCKI, Z., The temple of Queen Hatshepsut at Deir el-Bahari. Its original form, *MDAIK* 42, 1986, pp. 213-228, pls. 30-31; BARWIK, M., New data concerning the Third Intermediate Period cemetery in the Hatshepsut temple at Deir el-Bahari, in: N. STRUDWICK and J.H. TAYLOR (eds), *The Theban Necropolis*, London 2003, pp. 122-130, pls 76-90 ; F. PAWLICKI, *The Temple of Queen Hatshepsut at Deir el-Bahari*, Cairo 2000; SZAFRAŃSKI , Z.E. (ed.), *Queen Hatshepsut and her temple 3500 years later*, Warsaw 2001; ŁAJTAR, A. , *Deir el-Bahari in Hellenistic and Roman Periods*, JJP Supplement 3, Warsaw 2006 ; E. NAVILLE, *The Temple of Deir el-Bahari*, London 1895-1908, vols: I (EEF 13) 1895; II (EEF 14) 1896; III (EEF 16) 1898; IV (EEF 19) 1901; V (EEF 27) 1906; VI (EEF 29) 1908 ; WINLOCK, H.E., *Excavations at Deir el-Bahari 1911-1931*, New York 1942 ; LASKOWSKA-KUSZTAL, E., *Le sanctuaire ptolémaïque de Deir el-Bahari*, Deir el-Bahari III, Varsovie 1984

<sup>(36)</sup> the genius architect Senenmut has embedded and melted it into the landscape of the tremendous plateau which includes - about fifty meters away the valley of kings including Hatshepsut her (him)self - and pitting the innermost sanctuary of the annual visit of the statue of Amun in the plateau to be closer to her tabernacle .

<sup>(37)</sup> Watkins, et al, 2007; Watkins, C. and Rogers, J.D, 2005. Analysis of Composite Bedrock Megalandslides in the Colorado River Corridor, Arizona. Association of Engineering Geologists, Program with Abstracts, 2005 Annual Meeting; Doyle , B. , Analysis of the Sheik 'Abd el-Qurna Landslide, Luxor, Egypt ..

these detached slide parts on Hatshepsut ,Mentuhotep and and Thutmose III mortuary temples which have been subject also to hazards of space expansion of faults above and possibility of falling monstrous parts of rocks .

### **6.1.1 Justifications and an overview of reconstructions of the temple**

**6.1.1.1** the temple has considerable archaeological and historical importance, values and significances , which would be lost in wholly or partially particularly in sequence of continuous neglect or demolition – according to what mentioned above , whereas this temple has special problems where has been subjected to damage and squash by falling of sliding broken parts of backdrop plateau - in addition to ancient usurpation of monuments, destruction thus it had been mere ruins situated under abandoned Coptic monastery (**figs. 5 -7**) - with the exception of a few scientific and documentary works as mentioned above – till the mission of the Egypt Exploration Fund (EEF) directed by Edouard Naville, Between 1893 and 1899 (**fig. 8**) it managed to clear the Upper Terrace and most of the buried courtyards, chapels and colonnades, Roofs were installed over the Portico of the Obelisks and the porticoes of the Middle Terrace . The walls of the Main Sanctuary of Amun-Re were reinforced and a provisional protection was carried out of the Sun Altar, Royal Cult complex, Hathor Chapel and Lower Northern Portico (**fig. 9**) , that Herbert E. Winlock (1911-1931) at the head of a mission of the Metropolitan Museum of Art had penetrated the terraces and the two ramps of the uncovered temple .

**6.1.1.2** and lastly about forty years of co-operation between(ESA) Egyptian Service of Antiquities and (PCMA) the Polish Centre of Mediterranean Archaeology of Warsaw University in Cairo since 1960, where they had begun the last , long and large reconstruction of temple in the autumn of 1961 , where this reconstruction has acquired its justification of the following aspects :

**6.1.1.2.1** a full understanding , full , complete and extensive documentation of the temple and buildings of a site including, as

well as landscape etc. (which includes a site description ,its significance and its impressionable analysis and the future management , repair and overall conservation plan and its objectives and proposals.), and its previous studies and works from 1737 till 1960 (refer to **figs. 5 -9**) , whereas implemented measures to preserve any remains , materials, features, and spatial relationships based on the accurate duplication of features documented through archaeology conservation, archival research rather than on conjecture and meets tolerable standards of authenticity and pragmatism and does not come up to unacceptable limits of conjecture and supposition and preserves authenticity as following :

- the Polish scholars and conservation specialists to Deir el-Bahari, were the latest in a long series of travelers and researchers visiting the site , and have compassed the acquaintance and expertise full understanding of the temple and buildings of a site and the previous studies .

- **The works of reconstructions 1961- 1968** <sup>(38)</sup>

The mission achieved prodigious work of extensive documenting the remains of the Upper Terrace and the thousands of blocks lying in the stores including tracing the decoration and the texts and photographing (**figs.10 -12**) reaching fit this enormous jigsaw puzzle together, resulting in a theoretical and reconstruction of the representations ,plus noting of all the recuttings, damages and restorations, bringing out all the minor lines, dashes, hieroglyph traces, changes in the surface texture of the wall or block, also the decoration of most of the walls of the Upper Terrace was thus cast in hundreds of square meters of plastic film, tracing paper and ordinary paper , plus protection and reconstruction of particular , architectural elements of the building were undertaken even while the studies of the decoration continued , the reconstruction

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<sup>(38)</sup>see : Zbigniew E. Szafranski , op.cit., 2000; Queen Hatshepsut and her Temple 3500 Years Later , Editor : Zbigniew E. Szafranski ,op.cit. , 2001.

envisaged at the time by (EAO) was an undertaking on an enormous scale.

**- The works of reconstructions 1968 – 2000 <sup>(39)</sup>**

The works was pushed toward new directions. It was decided in consultation with the EAO to reconstruct fully certain parts of the temple, thus, the Upper Portico and the walls of the Upper Terrace were restored to their full height, in addition to reconstruction of several destroyed architectural members of limestone quarried immediately next to the ancient Pharaonic quarries located north of West Thebes, up to 200 workers were employed at times on this huge reconstruction project , At the foot of the rock cliff rising vertically above the temple, the Queen's architects had constructed a platform designed to protect the building from rocks walls ,as well as the reconstruction of the protective platform, , the Upper Terrace was restored ,The Upper Terrace of the temple was the most important element of the entire building., Fragments of this huge jigsaw puzzle of stone blocks were put back together into scenes, eight statues have been restored out of surviving fragments, the conservators' efforts have made many of the destroyed names of the Queen decipherable again. Two fragments of uraei found during excavations were returned to their place on the forehead of the statues, the two ramps leading to the Middle and Upper Terrace respectively were restored. At the foot of the upper ramp, statues of two royal falcons sitting on the backs of huge cobras were reconstructed. The writhing bodies of the serpents topped the ramp's balustrade, reconstruction of walls of the Upper Courtyard and their scenes , restoration of the west wall of the Courtyard and four statues of ten of the larger niches Osiriatic statues , reconstruction of the walls of the Festival Courtyard to their full height identified the position of sockets in the architrave, leading in effect to a determination of the number and arrangement of the columns. Initially, the courtyard had two rows of columns on all

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<sup>(39)</sup> ibid .



four sides, installation of third row of columns On the eastside of the entrance, reconstruction , restoration and arrangement spatial relationship of the Courtyard to the Chapel of Hatshepsut, re-erection of architraves , restoration, recreation and reconstruction the Main Sanctuary to its former magnificence, reconstruction and restoration of two of mummi-form statues of Hatshepsut In the longer walls of the Bark Hall to their original position , reconstruction of the short ramp with steps down the middle, reconstruction of the west wall of the second chapel and its niche leading to understanding of the layout of the original sanctuary , restoration of the gilded reliefs of the Ptolemaic chapel , restoration of the Ptolemaic Portico , reconstruction of three out of four walls of Mortuary Cult Chapels and to the north the Solar Cult Complex. to their full height. restoration of the undecorated walls of the courtyard concentrated sunlight, by using white limestone , restoration of Many of the lost elements of the altar's architecture were in new limestone , preservation the decoration of the partly rock-cut Upper Chapel of Anubis was entered from a door in the north wall , surviving more than a third of the semicircular vault of the *Ritual of Night and Day Hours*, and the rest, pieced together from fragments, is stored and awaits reconstruction , conservation of The decoration of the portico of the Lower Chapel of Anubis of the Middle Terrace , stabilization of some wall foundations with appropriate supporting structures , reconstruction and fitting of some blocks of new excavations into the reconstructed walls and the restoration work was finished on the Festival Courtyard, the Coronation Portico and the Main Sanctuary of Amun-Re, then the most important part of the Upper Terrace was opened to researists and tourists from all over the world , the reconstruction respects historical truth and it reflects the main international legal acts in this respect, as much as comprehensive restoration conceptions and aesthetic trends current in the field of restoration today, in the end effect, the mission has been able to discover and save different phases in the functioning of the temple throughout the more than

2600 years of its existence <sup>(40)</sup>, today and after reconstructing the temple particularly the upper terrace , the upper courtyard and the sanctuary visitors have been coming from everywhere In the world to visit this reconstructed temple which was brought to life for the public to resurrect and to memorialize it (**figs. 13 -15**).

**6.1.1.2.2** so without that reconstruction the ruins and remains ( fixed or movable buried or exposed in the form of scattered blocks and parts ) (refer to **figs. 5-12**) would be threatened by neglect or robbery , so the reconstructions of these ruins have prevent the alternative development going ahead (preventive conservation) being justified in order to stabilize and preserve these ruins.

**6.1.1.2.3** These reconstructions have taken part in retaining the temple's values without damaging or impact on surviving monumental or the original or archaeological context of the site , whereas they have achieved better appreciation of these values of the temple than if it is left in a ruined state .

**6.1.1.2.4** These reconstructions have not damaged or impacted on the remaining monumental or archaeological context of the site and had selected the least damaging option and minor losses of monument.

**6.1.1.2.5** More detailed survey and analysis of the temple had been prepared .

**6.1.1.2.6** These reconstruction achieved their goals in terms of an analysis of the long-term benefits either related to the values of the temple or other wider benefits (such as research benefits or educational and interpretational ones ) .

**6.1.1.2.7** these reconstructions at the end have provided us with : a three dimensional encounter with history , spatial and dimensional reality and intimacy to material culture, a sense of space for the visitor that cannot be accomplished by story telling or two-dimensional and even 3-dimensional scale models which It is a way

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<sup>(40)</sup>see : Zbigniew E. Szafranski , op.cit., 2000; Queen Hatshepsut and her Temple 3500 Years Later , Editor : Zbigniew E. Szafranski ,op.cit., 2001.



is not always successful and have resulted physically and esthetically reconstructions .

**6.1.1.2.8** the evidences in the reconstructions have been interpreted clearly without mislead or misinform to all public visitors .

**6.1.1.2.9** these reconstructions in the temple have conveyed to visitors accurate information , data and knowledge achieving the fidelity of a reconstruction to the current state of knowledge have applied differences in the technique and texture of new materials from the same original quarries whereas are clearly distinguishable from original monument, visually acceptable; the grounds for reconstruction and clearly explained to visitors (**figs. 13 -26**).

**6.1.2** the only two comments on these reconstruction are :

**6.1.2.1** the first one is the reconstruction of fully certain parts of the temple (the Upper Portico and the walls of the Upper Terrace in addition to the protective platform which had been designed to protect the building from rocks walls which are rising vertically above the temple) , and the paper supposes that reconstruction :

- plays an important role in preventive conservation generally , powerful capping and protection from rockslides .

- were implemented - in consultation with the Egyptian Antiquities Organization - according documentation through archaeology conservation, archival research rather than on conjecture and meets tolerable standards of authenticity and pragmatism and does not come up to unacceptable limits of conjecture and supposition and preserves authenticity and that is the main role of archaeology conservation as mentioned earlier <sup>(41)</sup> .

**6.1.2.2** the second one is that the project's responsibility has not taken in its account and consideration the main cause of demolition; possibility of falling immense parts from the backdrop calcareous plateau as a result of paleo-landslides in the Thebes formation limestone and which is non homogeneous with the unstable Esna Shale which has happened in the past, and could happen in any time

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<sup>(41)</sup> Jameson, John H., Jr., op.cit, 2004, p. 1-18.

not only to temple of Hatshepsut but also to Mentuhotep and Thutmose III mortuary temples , in addition to subjection to hazards of expansion of faults in Theban plateau above the temple subsequently falling partially or wholly blocks of rocks (the writer has some suggestions of preventive conservation for these phenomena, which –with God willing- would be the topic of forthcoming paper) .

## 6.2 The reconstruction of the white chapel of Senusret I <sup>(42)</sup>

The white chapel of Senusret I is a small, simple, and consistent structure (platform is 1.2m high) built of limestone almost square (6.8 x 6.45 meters) , most notable for its plenty inscriptions, It had been probably built during the remarkable purity of form in this structure is echoed in the austerity of the temple at Qasr el-Sagha. It has a shallow staircase with a central ramp at either end led up to the small rectangular building, situated on a platform, in which Senusret I himself possibly sat enthroned during part of his Sed festival. Sixteen square and oblong pillars (where there are twelve pillars around the outside of the kiosk, with another four in the interior) (all measure 2.6m height and are 0.6m across and 0.6m deep) , these pillars – which are decorated with raised reliefs on all four sides - support a complete roof with a cavetto cornice, a type of concave moulding decorated with leaves at the top of a wall, It is thought to imitate the overhang of a wall made of reed matting. the corners of the building have semi-circular torus

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(42) see : Baines, J.and Malek, J. , Atlas of Ancient Egypt, Les Livres De France , 1980; Clayton, Peter A., Chronicle of the Pharaohs (The Reign-By-Reign Record of the Rulers and Dynasties of Ancient Egypt) , Thames and Hudson Ltd , 1994; Wilkinson, R. H ., The Complete Temples of Ancient Egypt, Thames and Hudson Ltd , 2000 ; Shaw, I., The Oxford History of Ancient Egypt, Oxford University Press, 2000 ; Barcoas, C., Monuments of Civilization Egypt, Madison Square Press; Grosset & Dunlap, 1972; Wood, R., Egypt in Color, McGraw-Hill Book Company , 1964; Blyth, Elizabeth (2006). *Karnak: Evolution of a Temple*. London: Routledge. p. 15. ; Lacau, P &, Chevrier, H. (1969). *Une Chapel de Sesostris Ier*. Service des Antiquities, Cairo ..

roll moulding, which also imitates the architecture of a reed hut , the pillars around the outside are separated by low balustrades with rounded tops, creating a building that has a very open feel to it , The different nomes of Egypt (the administrative centers) are recorded in columns on the parapet (base). Within the chapel, the god depicted with Senusret I is usually Amun-Re in his guise of the god of procreation and fertility, Min.

This chapel is the little pavilion (kiosk) built for Senusret I's first jubilee (Sed) festival, it is probable that Senusret's festival was held in his 31<sup>st</sup> year of rule (<sup>43</sup>). It was probably built to house the royal barque and is sometimes referred to as a "barque shrine", it is popularly known as the White Chapel.

It was converted during the reign of 12th Dynasty kings Amenemhat III or Amenemhat IV, into a bark shrine (the altar of rose granite within the chapel today probably dates to this time, despite the change in function, the shrine probably remained in its original location, later subsumed within the festival hall of Thutmose II (<sup>44</sup>) .

It had been disassembled and used as fill in Amenhotep III's Third Pylon at Karnak during the 18<sup>th</sup> Dynasty (where the king dismantled the white chapel during his renovation of the area around the festival hall of Thutmose II and used it as fill in his newly constructed Pylon III), and at the end of the 19th century, a large part of this massive pylon toppled over during an earthquake .

### **6.2.1 The reconstruction of the chapel**

In 1924, the director general of the Egyptian Antiquities Service, Pierre Lacau, ordered his director of works at Karnak,

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(<sup>43</sup>) where the king could sit on a double throne. Holes in the floor between the four central columns indicate the use of poles to hang banners hiding the king from the public eyes. One scholar has suggested that after the end of the jubilee festival, statues of the king were placed in the kiosk to sit on the double throne .

(<sup>44</sup>) Lacau, Pierre and Henri Chevrier (1956), Une chapelle de Sésostris Ier à Karnak. Le Caire: Institut français d'archéologie orientale du

Henri Chevrier, to repair this Pylon, but in order to do so, the pylon had to be dismantled ,It took years to do so, because it could only be done when the Nile was in a low phase, due to ground water, during this work, Chevrier discovered some 951 blocks that belonged to a total of eleven different structures that had been used as fill within the pylon, while many of the blocks were damaged, their reliefs were often in outstanding condition, due to the layers of mortar which had both bound them together and protected the blocks , for the blocks belonging to Senusret's chapel were easy to identify because of their exquisitely carved reliefs and inscriptions .

This work progressed slowly, but orderly, where it took many years to carefully arrange the layout of the structure like a big jigsaw puzzle on paper and after determining the proper block orientation and placement, Chevrier was able to reconstruct almost completely the Chapel between 1927 and 1930 , all of the pieces were carefully removed and were then assembled and the puzzle was finally put together in 1940 the result was that small, open kiosk that is seen today in open-air museum in Karnak .

The White Chapel as a structure is considered by many to be the most elegant, as well as the oldest structure in Karnak today <sup>(45)</sup>. (figs. 27 -35) .

### **6.2.2 The reconstruction digital modeling of the chapel**

Depending on the plan and axial drawings of Carlotti the model of the chapel was made<sup>(46)</sup> ,where it was systematically photographed in its present location the Open Air Museum so that each face of the building could be reconstructed on the model as it appears today at Karnak then a blank limestone pattern was added to the areas that could not be photographed , the layout of the reliefs

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<sup>(45)</sup> Chevrier thought that the structure may have once been covered in gold foil, so it could have been all the more glorious, also the White Chapel provides one of the earliest records of a "river-unit". This is a measurement that appears to correspond to 20,000 cubits in length, or about 10.5 kilometers , see: Lacau, P &, Chevrier, H.. *Une Chapel de Sesostri Ier*. Service des Antiquities, Cairo , 1969.

<sup>(46)</sup> Carlotti, J.-F., "Contribution à l' étude métrologique de quelques monuments du temple d'Amon-Rê à Karnak." Cahiers de Karnak, vol. X, 1995, 65-127, pls. IX-X .

and texts on the model reflects the actual layout of the stones in the white chapel today <sup>(47)</sup> (figs. 36 - 38) .

There is a debate about the original location of the chapel , it may have remained outside the temple of Amun-Ra temple's inner enclosure wall during the Middle Kingdom, it was oriented on a North-South direction, with a stepped ramp on each side (figs. 39 - 44).

### **6.2.3 The Warrants for reconstruction of the chapel**

**6.2.3.1** This reconstructions have contributed to retaining the chapel's importance, values and significances , which would be lost partially if their blocks have remained in stores or of Karnak , and they have achieved better appreciation of these values of the chapel than if they have been left in magazines , so this reconstructions achieved the preventive conservation .

**6.2.3.2** This reconstructions have retained two particular significance the first is that this chapel is the only building of Senusret I which had been lost and was found , where there are evidence of at least 35 sites where he built, yet most of this work is lost to us ( where he constructed a number of temples from the Delta to as far south as Elephantine at modern Aswan, included structures at Thebes ) .

The second is that chapel after reconstruction is the oldest structure in Karnak today .

**6.2.3.3** Survival almost all the blocks of the chapel in the core of the third pylon even some of these blocks which were damaged, their reliefs were preserved because of the layers of mortar which had flanked and wrapped them together and had protected them from ravage .

**6.2.3.4** The least damaging option has been selected in reconstruction.

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<sup>(47)</sup> Carlotti, J.-F., op.cit.; Strauss-Seeber, Christine, "Bildprogramm und Funktion der Weissen Kapelle in Karnak," in Ägyptische Tempel-- Struktur, Funktion und Programm : Akten der Ägyptologischen Tempeltagungen in Gosen 1990 und in Mainz 1992. Hildesheim: Gerstenberg, 1994, pp.287-318.

**6.2.3.5** This reconstructions based on extensive documentation rather than on conjecture and meets tolerable standards of authenticity and pragmatism and does not come up to unacceptable limits of conjecture and supposition and preserves authenticity , where the whole components of the building have been survived and had been easy to identify because of their exquisitely carved reliefs and inscriptions .

This reconstructions had its right slow time in study by Chevrier where he took many years in careful arrange the layout of the structure like a big jigsaw puzzle on paper and after determining the proper block orientation and placement, and reconstructed on the paper between 1927 and 1930 , after that all of the pieces were carefully transported and were then assembled and the puzzle was finally put together in 1940 .

**6.2.3.6** The same as mentioned earlier in the reconstruction of temple of Hatshepsut at el-Deir el-Bahari this reconstructions of the chapel at the end have provided us with : a three dimensional encounter with history , spatial and dimensional reality and intimacy to material culture, a sense of space and a physical and esthetical reconstructions .

**6.2.3.7 the reconstruction has attracted visitors and tourists and has been used as interpretive , presentable and educational tools**

**6.2.4** the only comment reconstruction is about the original location of the chapel where there has been a debate about where it may had been outside the temple of Amun-Ra temple's inner enclosure wall during the Middle Kingdom, it was oriented on a North-South direction, and of course this location has been occupied later with another archaeological building (**refer to figs. 39 - 44**) , so Henri Chevrier was forced to select an alternative location in the open museum in Karnak .

### 6.3 The reconstruction of the Egyptian Alabaster Chapel of Amenhotep I

It is a small barque chapel is (6.75 metres long (deep) , 3.6 metres wide (across) and 4.5 metres tall(high)), originally nestled between a pair of screen walls, with solid side walls and doorways at both ends were originally - according to the inscriptions- fitted with double leaved doors of solid copper (is more likely wood sheathed in copper) and decorated with gold figures , it was decorated inside and out with reliefs, including (on the inside) the earliest surviving depiction of the sacred barque itself,

This chapel originally had been built by Amenhotep I - 1525 BCE to 1504 BCE from Egyptian alabaster, as a ritual space to house the bark of Amun-Ra., wooden doors on the shrine's short ends could be closed to protect the sanctity of the god. Left incomplete by Amenhotep I, the decoration on the chapel's south wall was finished by Thutmose I. it had been then a roofed rectangular structure made of large blocks of Egyptian alabaster with access doors on its short sides. the interior relief scenes are the oldest surviving depictions of the sacred bark of the statue of the god Amun-Ra of Karnak. Each of the chapel's exterior sides were decorated with a single scene related to temple festivals , then modified by Hatshepsut - 1479 BCE to 1458 BCE who may have moved the bark from the central area of the temple to a position along the southern festival processional, just south east of her new pylon (the seventh pylon). In its place she erected her own bark shrine, the "red chapel.", , then destroyed by Thutmose III 1425 BCE - who destroyed the Red Chapel as well - he may have dismantled or moved the shrine, and built an identical Egyptian alabaster chapel near the seventh pylon and gave his new shrine the same name as the shrine of Amenhotep I, where the Amenhotep I chapel was placed at this time is unknown , later in the reign of

Amenhotep III, the Egyptian alabaster chapel was used as fill in the king's construction of the third pylon (<sup>48</sup>).

The only building of Amenhotep I (<sup>49</sup>) that is still visible at Karnak (after it has been reconstructed in the Open Air Museum out of blocks which were found in Pylon III(<sup>50</sup>)).

like so many others, this building was demolished by Amenhotep III and the stone used as ballast in the Third Pylon.

there has been some debate as to where the chapel originally stood because the original location of the chapel is unknown but a site alongside the southern approach is generally favored (<sup>51</sup>), it also may have stood in the so-called "Middle Kingdom Court," serving as the main bark shrine for the portable bark of Amun-Ra. for the temple under Amenhotep I, also there is a suggestion that has received wide support is that it was located west of the Sacred Lake, near where the Seventh Pylon was later built and where a similar shrine built by Tuthmosis III now stands-both structures had the same name ('Amun, Enduring of Monuments').

However, it is now generally believed that it was moved there by Hatshepsut from the spot now occupied by the shrine of Philip Arrhidaeus (and, before that, her own barque shrine).

**6.3.1 For the reconstruction of this Chapel of Amenhotep I and reusing their blocks by Amenhotep III in his Third Pylon and digital modeling and The hypothetical original locations of the**

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(<sup>48</sup>) Grimal, N., A History of Ancient Egypt. Librairie Arthème Fayard, 1988.

(<sup>49</sup>) In addition to his other works, Amenhotep also built a jubilee pavilion that was almost identical to the White Chapel of Senusret I right down to the style of relief carving, which is so similar that it is sometimes impossible to distinguish them

(<sup>50</sup>) The Third pylon at Karnak, which had been built by Amenhotep III, collapsed partly at the end of the 19th century, In 1924, the director general of the Egyptian Antiquities Service, Pierre Lacau, ordered his director of works at Karnak, Henri Chevrier, to repair this pylon, but in order to do so, the pylon had to be dismantled, and the material which taken down and used as filling showed to had been come -originally - from no less than eleven different buildings, had been material, this material now forms the basis of the Open Air Museum at Karnak, that is the reason for the existence of the Open Air Museum .

(<sup>51</sup>) Blyth, Elizabeth, Karnak: evolution of a temple. London ; Strudwick, Nigel & Helen, 1999, Thebes in Egypt , 2006.



chapel <sup>(52)</sup>. (figs. 45 - 44), nearly the same condition , same justifications and the same comment on the above practice .

#### **6.4 The reconstruction of the Red Chapel of Hatshepsut**

##### **6.4.1 Description <sup>(53)</sup>**

The Red Chapel of Hatshepsut or the Chapelle Rouge (the name is regarding to red quartzite from which Its upper portion was built ) originally was constructed as a barque shrine during the reign of Hatshepsut , who began the creation of this at the end of her reign (between the year 17 and 20), this chapel or "place of the heart of Amon", or "favourite Place of Amon") was intended to act as resting place for the sacred barque of the dynastic and guardian God of Thebes.

It was initially destined to replace a building dating from Amenhotep I, the Alabaster Chapel , the erection of the red chapel comes within the framework of a vast political program of the Pharaoh-queen, essentially centred on her concern of recognition, she proceeds with the progressive occupation of the main sites of Karnak: planning within the heart of the offering chapels of the temple, planning of the Western and Southern extremities of the temple, and construction of the Red Chapel.

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<sup>(52)</sup> References and Sources of Model Construction are : Carlotti, Jean-François (1995), "Contribution à l' étude métrologique de quelques monuments du temple d'Amon-Rê à Karnak." Cahiers de Karnak, vol. X, 65-127; Graindorge, Catherine (2002), "Der Tempel des Amun-Re von Karnak zu Beginn der 18.Dynastie," in Ägyptologische Tempeltagung: Würzburg, 23.-26. September 1999, vol. 5. : 83-90; Graindorge, Catherine and Philippe Martinez (1999), "Programme architectural et iconographique des monuments d'Amenophis I a Karnak." Annales du service des antiquités de l'Égypte, vol. 74, 169-182; Blyth, Elizabeth (2006), Karnak: evolution of a temple. London: Routledge; Graindorge, Catherine and Philippe Martinez (1989), "Karnak avant Karnak." Bulletin de la Société française d'égyptologie, vol. 115, 36-55. , for more reading see : Graindorge, Catherine and Philippe Martinez (1989), "Karnak avant Karnak." Bulletin de la Société française d'égyptologie, vol. 115, 36-55. ; Larché, François (2007), "Nouvelles observations sur les monuments du Moyen et du Nouvel Empire dans la zone centrale du temple d'Amon." Cahiers de Karnak, vol. XII, 407.

<sup>(53)</sup>Laccou , P., Chevrier, H. , Une chapelle d'Hatchepsout à Karnak. IFAO 1977; Harchpsout, femme pharaon. Dossiers d'Archéologie N°187 S, Novembre 1993; Golvin, J.C., Goyon J.C. : Les bâtisseurs de Karnak, Presses du CNRS, 1987; Lauffray, J. : Karnak d'Égypte. Domaine du divin, Presses du CNRS, 1987; Ratie, S. : La Reine Hatchepsout. Sources et problèmes, Lugdunum Batavorum E.J.BRILL, 1979 ; Larche, F. , L'anastylose de la Chapelle Rouge, Revue Égypte N°17, May 2000 (number completely devoted to the queen Hatshepsut).

The Chapel has the form of a rectangle (consists of two open courts )of 17.30 x 6.30 x 5.5 m high metres , the facade of the vestibule is 7.70 metres high, while that of the sanctuary is only 5.77 metres. it contains three doors in the same dimensions and installed at the same level.

The chapel was not covered , and its paved floor is perfectly abutted, except around the central blocks, which are surrounded by a gully. the central part was therefore clearly intended to receive the water of purification used at the time of the ritual ceremonies . Its upper portion is made of red quartzite, the foundation is built of granodiorite.Black , which in turn was used with granite in its construction , In the center of the first of three courts (vestibule sits) contained in the building, is a basin, probably used to hold a model of a barque, In the centre of the a vat in diorite- recently excavated, but which was probably originally a full block- intended to act as a support to the Sacred Boat, in the center of the inner court, two rectangular stone slabs mark places where statues or barques might have been placed From the vestibule, it is necessary to descend a step of 20 centimetres to enter into the sanctuary and which is therefore slightly lower, and similarly it will be necessary to go back up a step at the other extremity to reach the doorstep of the rear door of the sanctuary. the separation is made evident by an advance of the internal wall .

The alter of rest was situated inside the temple of the divinity, the Red Chapel's first vocation is to shelter the boat of Amon.

Access to the internal altars of rest of the temple was reserved only for the priests ,on the contrary, outside of the surrounding wall of the temple, altars of rest were a part of the public route of the God .

#### **6.4.2 Destruction**

After Hatshepsut's death, Red Chapel was dismantled during the reign of Thutmose III. It originally was thought that the destruction of the chapel was part of the proscription of Hatshepsut

that occurred beginning in year 42 of Thutmose III's reign. This was when he was an old man and during a co-regency with his son from a minor wife ( That son would become Amenhotep II ).

It was slightly modified, by her successor and nephew Thutmosis III. who will subsequently dismantle it to pursue his own architectural program , where there are a new research has shown evidence of additions to the top blocks of the shrine that show Thutmose III without Hatshepsut and claiming the chapel as his own. This would imply that it was a completion of the chapel, that was unfinished after her death without any disturbance of the work completed by Hatshepsut.

Yet after his year 42-during his next co-regency with his son- Thutmose III's own building projects at Karnak such as the Hall of Annals deliberately conceal inscriptions and decoration relating to Hatshepsut and many decorations of Hatshepsut were erased. The blocks that have been found from the Red Chapel, however, show some random and incomplete erasures. Many of the blocks have no erasures on multiple sides. This phenomenon has caused some archeologists to believe that the attacks against the images of Hatshepsut occurred after the Red Chapel had been deconstructed and the blocks had been stacked so that they could be reused in other building projects.

The original location of the chapel remains under debate, but it might have been in the central court of the temple of Amun at Karnak ( the "Court of Feasts" of Thutmosis II) , alternatively, it might have been situated between the two obelisks that Hatshepsut erected in this place, in front of the set of rooms called "The Palace of Maat", and placed immediately in front of a mud-brick and limestone temple remaining from the Middle Kingdom. To the north and south of the Red Chapel stood a collection of smaller sandstone cult shrines known as the Hatshepsut Suite.

After it had been deconstructed, parts of the Red Chapel were used in the later building projects of other pharaohs at Karnak. The

two black granite doorways of the chapel were placed in the main door to Thutmose III's north suite at the *Palace of Ma'at* and the door leading into the southern columned court in the Sixth Pylon. Amenhotep III also used some of the blocks from the Red Chapel in the construction of the Third Pylon, much later in the eighteenth dynasty, the remaining blocks ended up being used in other monuments built at Karnak, for example in the foundation of the temple of Ptah, in the Ninth Pylon.

Many of the blocks from the disassembled Red Chapel were rediscovered in the 1950s inside the walls of other structures.

#### 6.4.3 Reconstruction <sup>(54)</sup>

This aspect has been well studied by Gérard Homann, to which it is referred to his site, in particular "Hatshepsut". Another hypothesis on the position of the red Chapel can be found on the Centre of French-Egyptian Studies of the Temples of Karnak (CFEETK).

This chapel is unique in creation since it is probably the first "prefabricated" in stone in the history of the World. Recently, the Red Chapel was reconstructed by the care of (CFEETK) by anastylose (created from various sources and materials) for about 300 of the essential blocks come out of the infill of the 3rd pylon of Amenhotep III and that were preserved until now in scattered form in the Open Air Museum of the temple. The reconstruction required the collaboration of several specialties: architects, conservator stone mason, designer, epigraphist, photographer, etc. because the understanding of the monument remained difficult, see Some examples of pre-reconstruction studies and documentation of the Red Chapel ( **Figs. 56-63**)

So for example, the decoration of the blocks was little contributive, because it hardly ever depends on the vertical joints,

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<sup>(54)</sup> In 2001, when the Supreme Council of Antiquities decided to rebuild the Red Chapel of in the Open Air Museum, the process, like all of our modern lives, happened much quicker (though still a number of years), as they fed the architectural elements of the building into a computer. The results are splendid.

and even the horizontal joints , with guiding of the survey of the notches of control levers and dovetails used in the manipulation and assembly of the blocks.

Fortunately, the walls contained a windfall which permitted one to distinguish the elements of the internal and outside facings , the reconstruction of the chapel used blocks of red quartzite (originating from the Djebel Akhmar, the "red mountain" situated close to Heliopolis) and of grey diorite , see Some examples during the execution of reconstruction of the Chapel ( **Figs. 64 - 69**), , the chapel was entirely preassembled on the ground , and today, over three hundred blocks from the chapel now are displayed in their original context at the Open-Air Museum of Karnak ( **Figs. 70-75**).

#### **6.4.4 The Warrants for reconstruction of the chapel**

**6.4.4.1** This reconstruction has retained the chapel's and has achieved the preventive conservation .

**6.4.4.2** This reconstructions have retained a particular significance the chapel is unique in creation since it is probably the first "prefabricated" in stone in the history of the World.

**6.4.4.3** Survival almost all the blocks of the chapel in the core of the third pylon even some of these blocks which were damaged, their reliefs were preserved because of the layers of mortar which had flanked and wrapped them together and had protected them from ravage .

**6.4.4.4** The least damaging option has been selected in reconstruction.

**6.4.4.5** This reconstructions based on extensive documentation rather than on conjecture .

**6.4.4.6** This reconstructions had its right slow time in study

**6.4.4.7** The reconstruction of the chapel at the end have provided us with : a three dimensional encounter with history , spatial and dimensional reality and intimacy to material culture, a sense of space and a physical and esthetical reconstructions .

**6.4.4.8** The chapel was reconstructed with the original materials and was erected on the original location .

**6.4.4.9** The reconstruction has attracted visitors and tourists and has been used as interpretive , presentable and educational tools

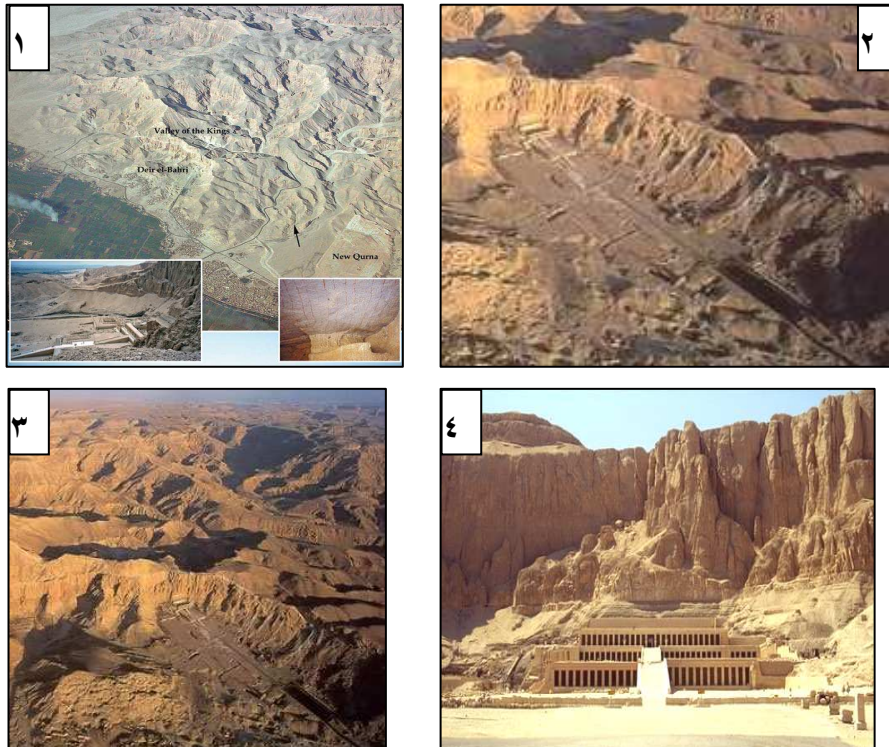
the reconstruction has attracted visitors and tourists and has been used as interpretive , presentable and educational tools .

**7.The last comment :** this paper cites that not all reconstructions of the ancient Egyptian buildings and Site's Remains and Ruins have justifications or warrants where Some of these reconstructions depended only a few and weak excavated evidence in reconstructing building and they are considered a recreation more than reconstruction .

( for example the Satet temple of Senusret I at Elephantine island (Aswan) see ( **Figs. 76-84**).

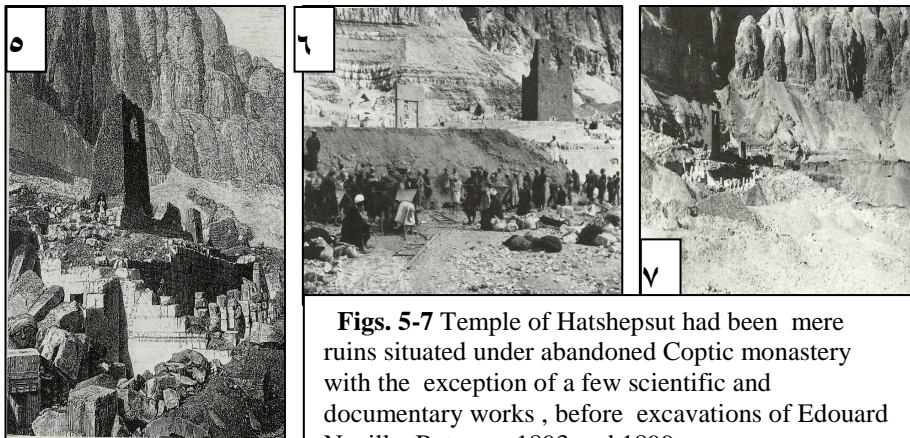
## **8. Conclusion**

Although the predominant and widespread approach of the reconstruction of archaeological remains and ruins of buildings and sites is the conservative view the reversible minimum interventions which is against reconstruction . this paper swims upstream this current approach and confounds it with the warrants or justifications for buildings and sites reconstruction 's remains and ruins particularly ancient Egyptian ones which have some particular conditions ,exhibiting an overview of some striking reconstruction practices of ancient Egyptian buildings .



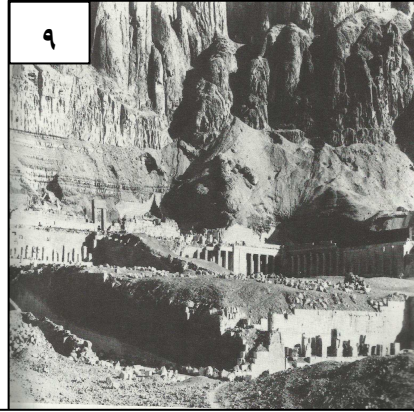
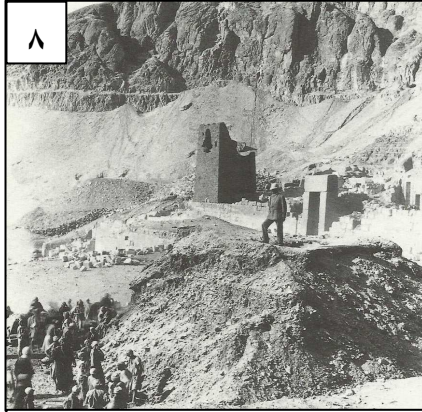
**Figs. 1-3** Temple of Hatshepsut and the other terraced temples - of Mentuhotep Nebhepetre and Thutmose III - which are architectural rock complex at el-Deir el-Bahari , it was built of local (Thebes formation) limestone blocks which quarried from quarries situated on the way the temple dominates the valley , these temples have been suffered from defects of the backdrop natural rock which has done smash in sequence of falling slide parts .

**Figs. 4.** Temple of Hatshepsut view from the northeast.



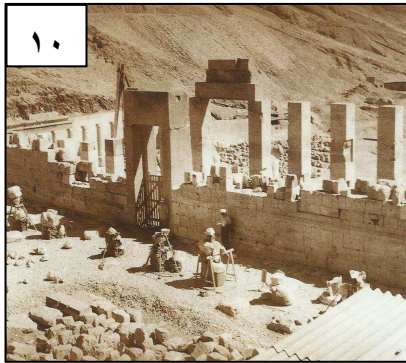
**Figs. 5-7** Temple of Hatshepsut had been mere ruins situated under abandoned Coptic monastery with the exception of a few scientific and documentary works , before excavations of Edouard Naville, Between 1893 and 1899





**Fig. 8** Temple of Hatshepsut the excavations of Edouard Naville, Between 1893 and 1899

**Fig. 9** The temple after the excavations 1896 , where the walls of the Main Sanctuary of Amun-Re were reinforced and a provisional protection was carried out of the Sun Altar, Royal Cult complex, Hathor Chapel and Lower Northern Portico ,till Herbert E. Winlock (1911-1931) and his mission had penetrated the terraces and the two ramps of the uncovered temple .



**Figs. 10-11** the remains of the Upper Terrace and courtyard before the beginning of 1961 works where the thousands of blocks had been laid in rows then transported to the stores then the decoration and the texts had been traced , photographed and documented in await of reconstruction



**Fig. 12** the remains of the Upper Terrace and courtyard in the early 1960<sup>th</sup> before the beginning of works in 1961

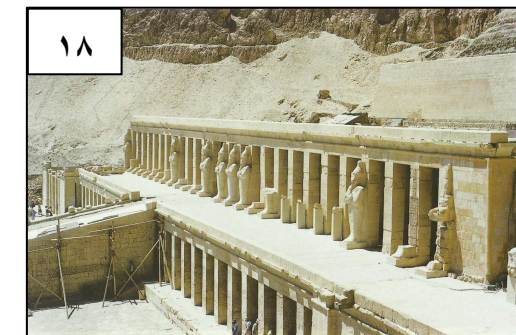
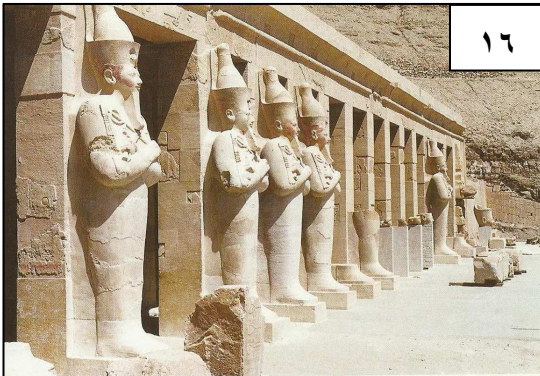




**Fig. 13** The main sanctuary , Bark Hall and Hall of the Offering Table and Ptolemaic Sanctuary (the upper terrace) after reconstruction .

**Fig. 14** Solar Cult Complex (the upper terrace) after reconstruction .

**Fig. 15** Festival Courtyard (the upper terrace) after reconstruction .

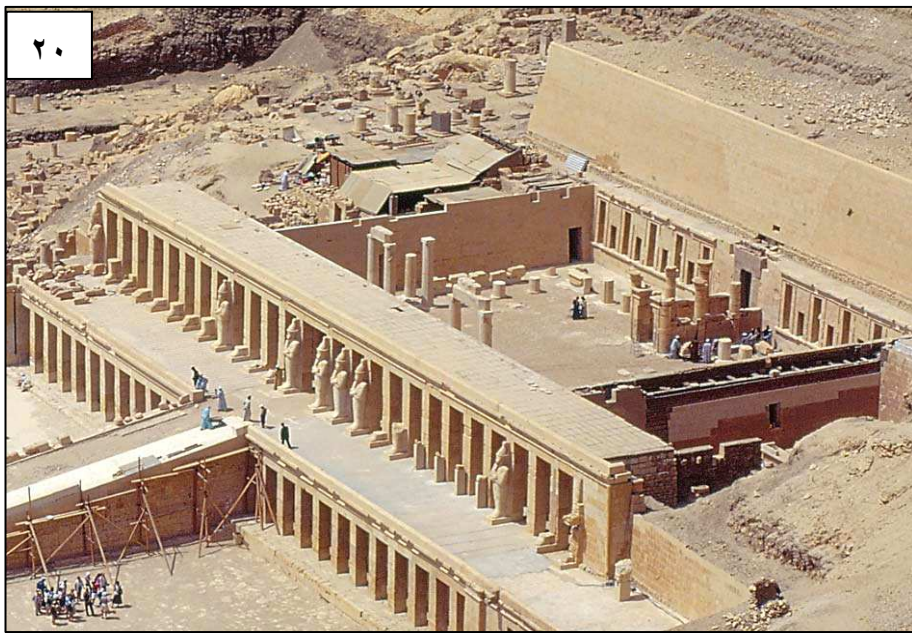


**Figs. 16-18** The statues of Hatshepsut after re-erection against the pillars of the upper portico and the eastern ends of its lateral walls



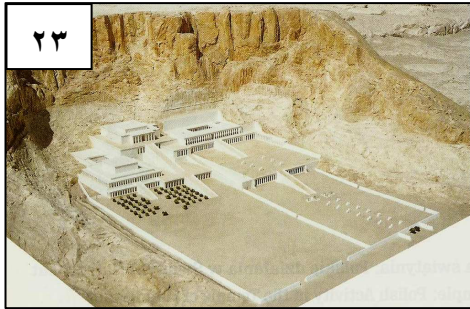
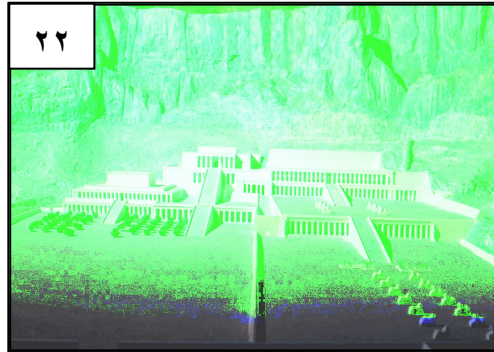
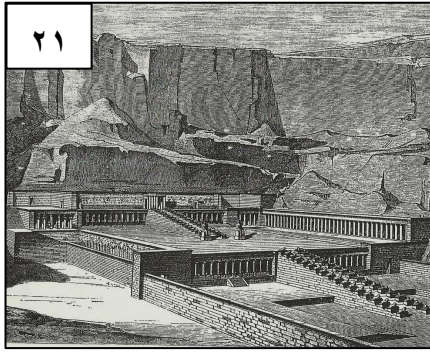


**Fig. 19** Temple of Hatshepsut(Upper Terrace) at the beginning of works on the temple in (PCMA Archives)



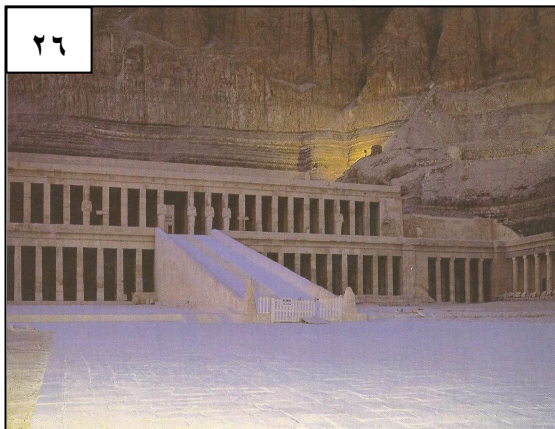
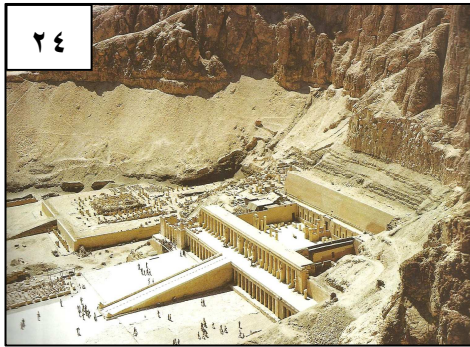
**Fig. 20** Temple of Hatshepsut (Upper Terrace) after reconstruction (Photo M. Jawornicki)





**Fig. 21** The hypothetical reconstruction of the temple by E. Brune , 1866 .

**Figs. 22-23** The hypothetical reconstruction in form of miniature model of the temple of Hatshepsut ,Mentuhotep Nebhepetre and Thutmose III by Z.E.Szafranski

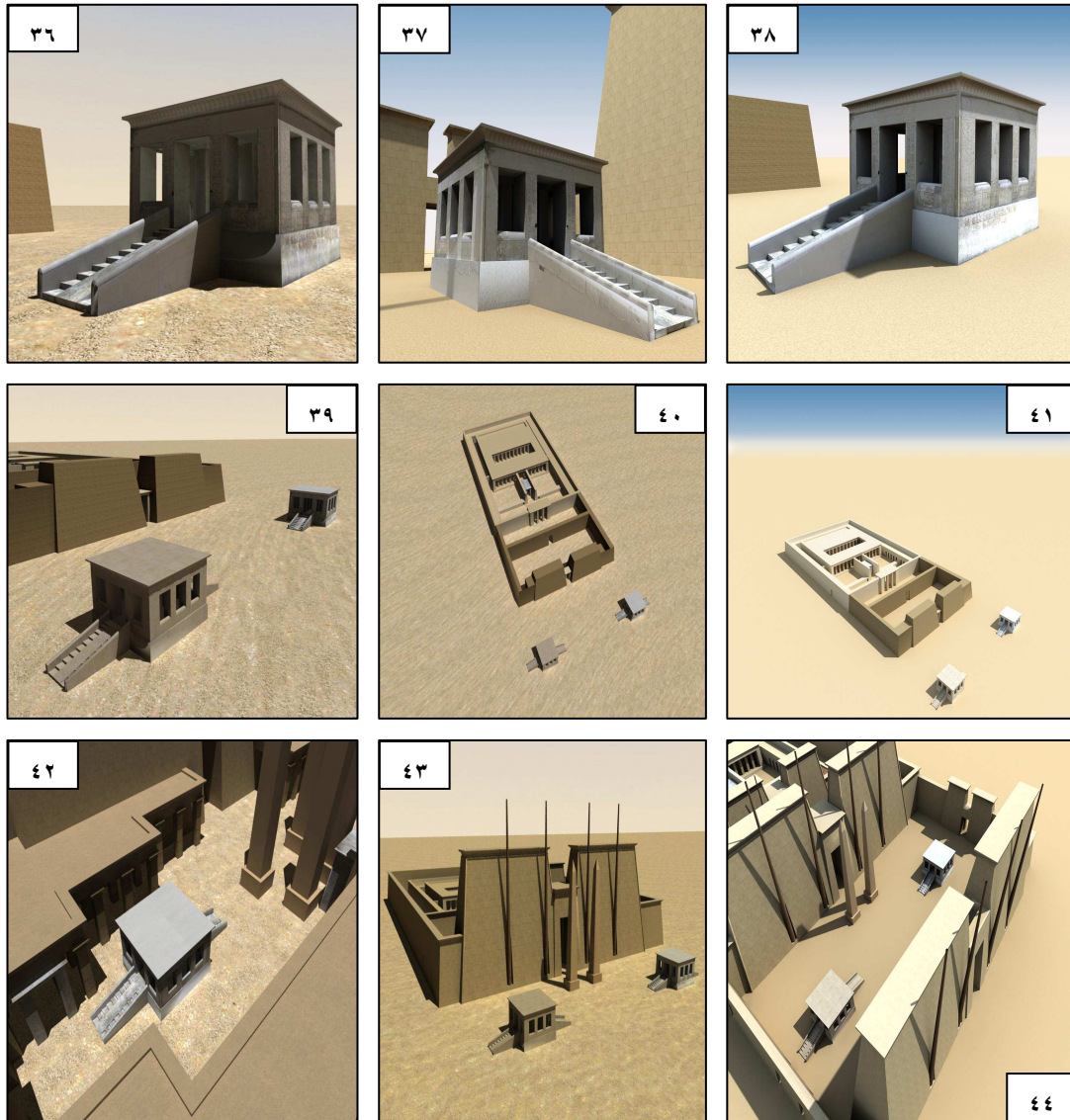


**Figs. 24-26** The temple after reconstructing particularly the upper terrace , the upper courtyard and the sanctuary visitors have been coming from everywhere In the world to visit this reconstructed temple which was brought to life for the public to resurrect and to memorialize



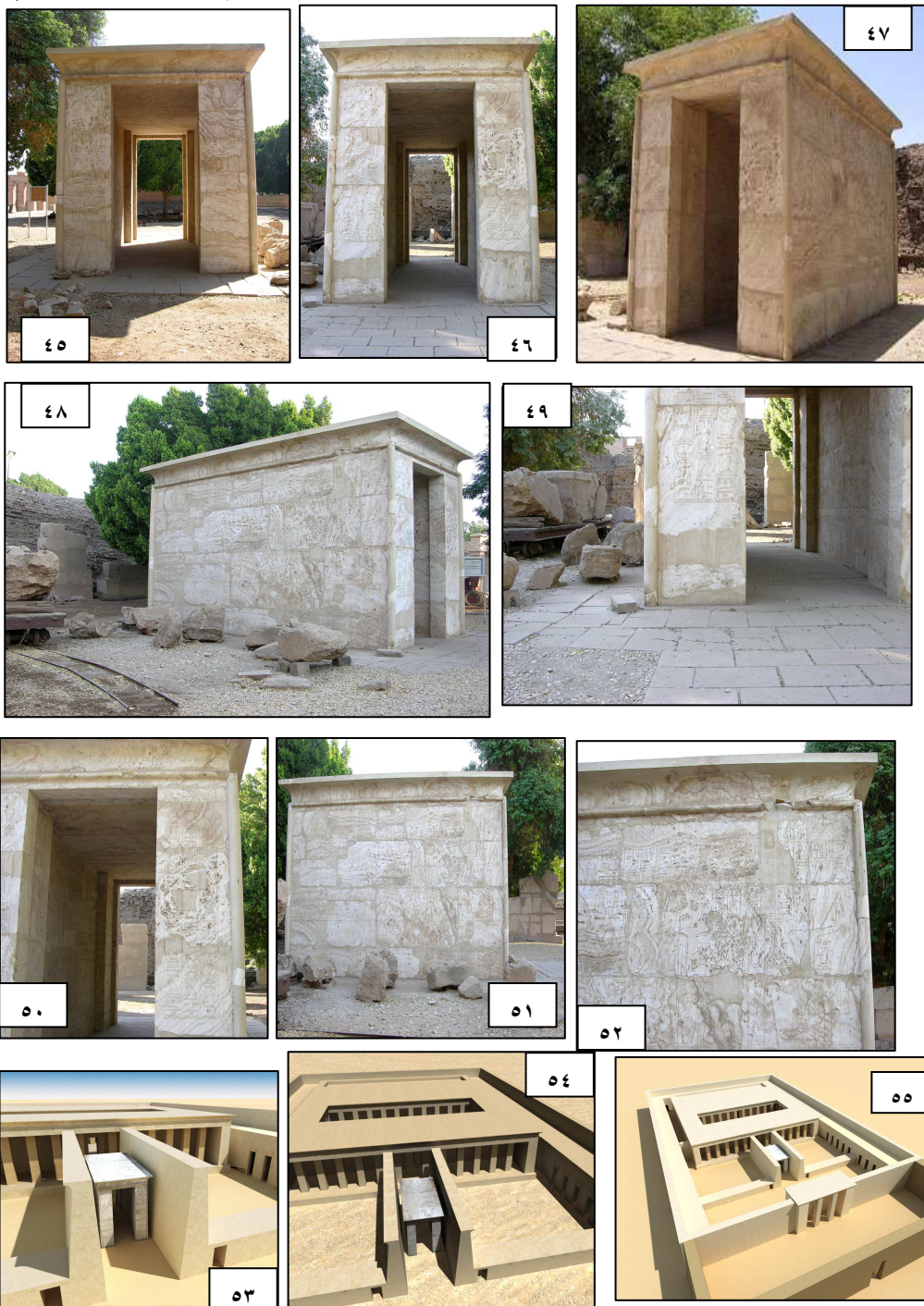
**Figs. 27-35** The white chapel of Senusret I after reconstruction in open-air museum in Karnak by Henri Chevrier who accomplished his work slowly, but systematically, where he took many years to carefully arrange the layout of the structure like a big jigsaw puzzle on paper and after determining the proper block orientation and placement, Chevrier was able to reconstruct almost completely the Chapel between 1927 and 1930 , all of the pieces were carefully removed and were then assembled and the puzzle was finally put together in 1940 the result was that small, open kiosk that is seen today .





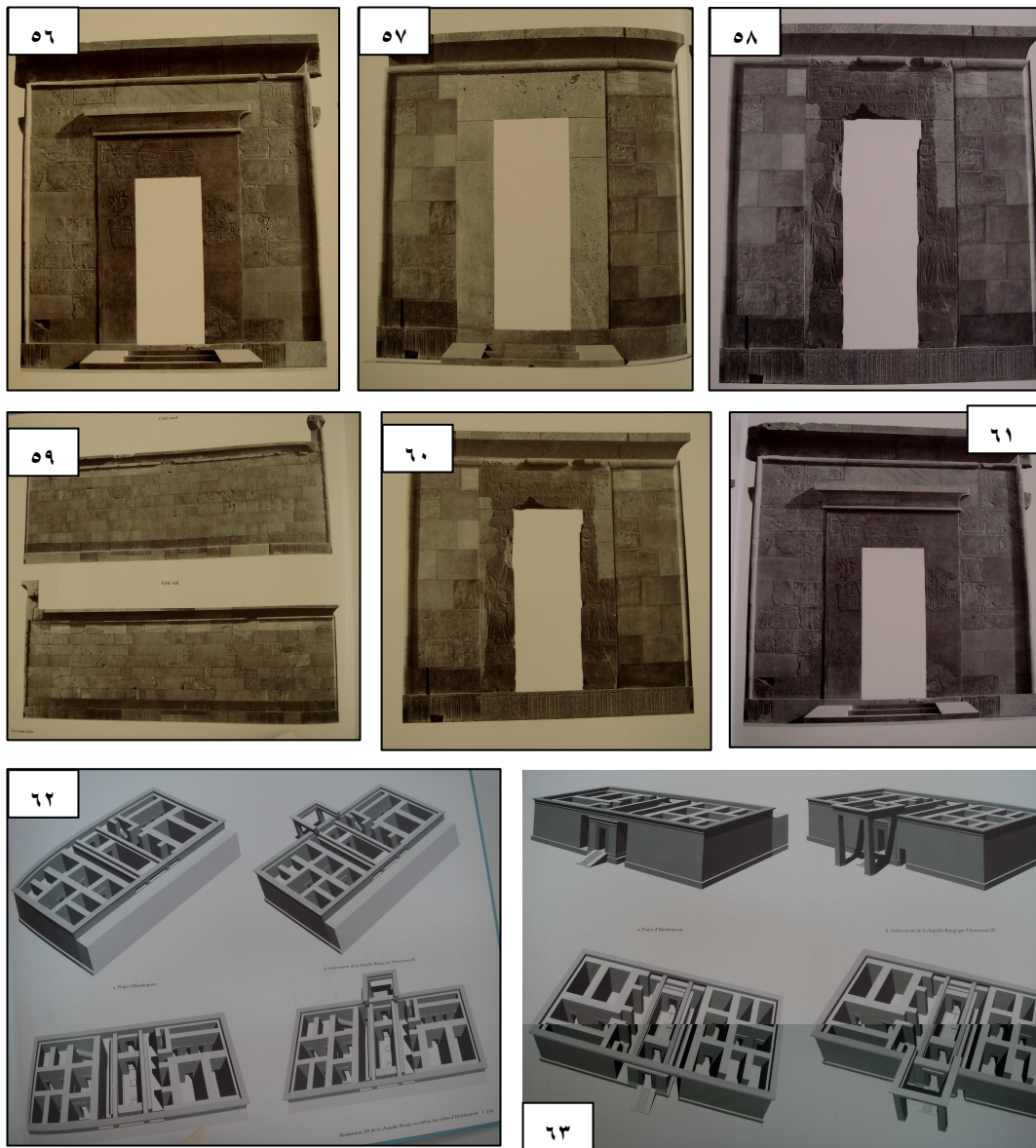
**Figs. 36-38** The white chapel of Senusret I reconstruction model Depending on the plan and axial drawings of Carlotti , where it was photographed in its present location the Open Air Museum and each face of the building was reconstructed on the model as it appears today at Karnak then a blank limestone pattern was added to the areas that could not be photographed , the layout of the reliefs and texts on the model reflects the actual layout of the stones in the white chapel today .

**Figs. 39-44** The hypothetical original locations of the chapel , it may have remained outside the temple of Amun-Ra temple's inner enclosure wall during the Middle Kingdom, it was oriented on a North-South direction, with a stepped ramp on each side .

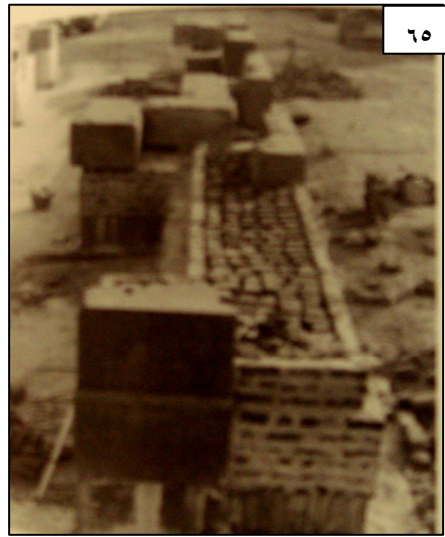
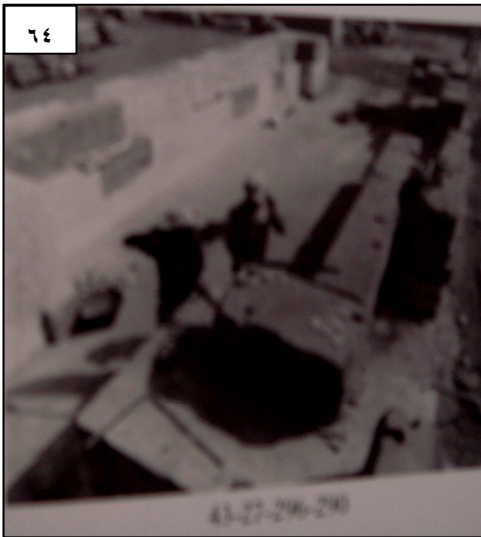


**Figs. 45-52** The chapel of Amenhotep I after reconstruction in open-air museum in Karnak .  
**Figs. 53- 55** The hypotheical original locutions of the chapel .



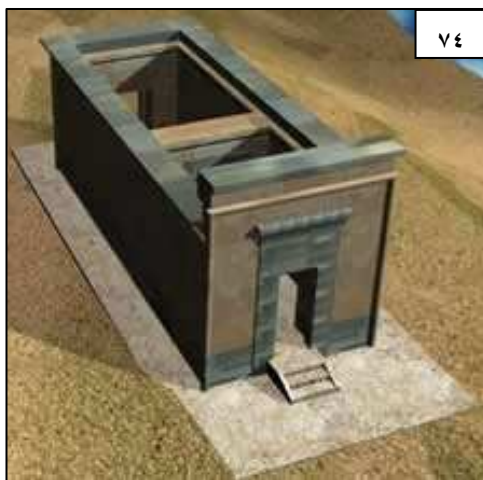
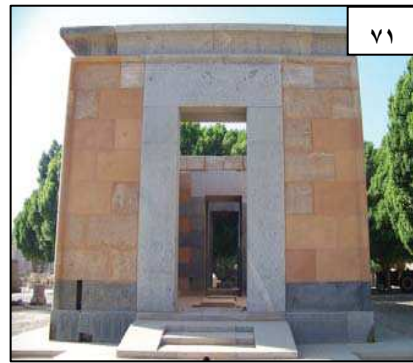


**Figs. 56-63** Some examples of pre-reconstruction studies and documentation of the Red Chapel

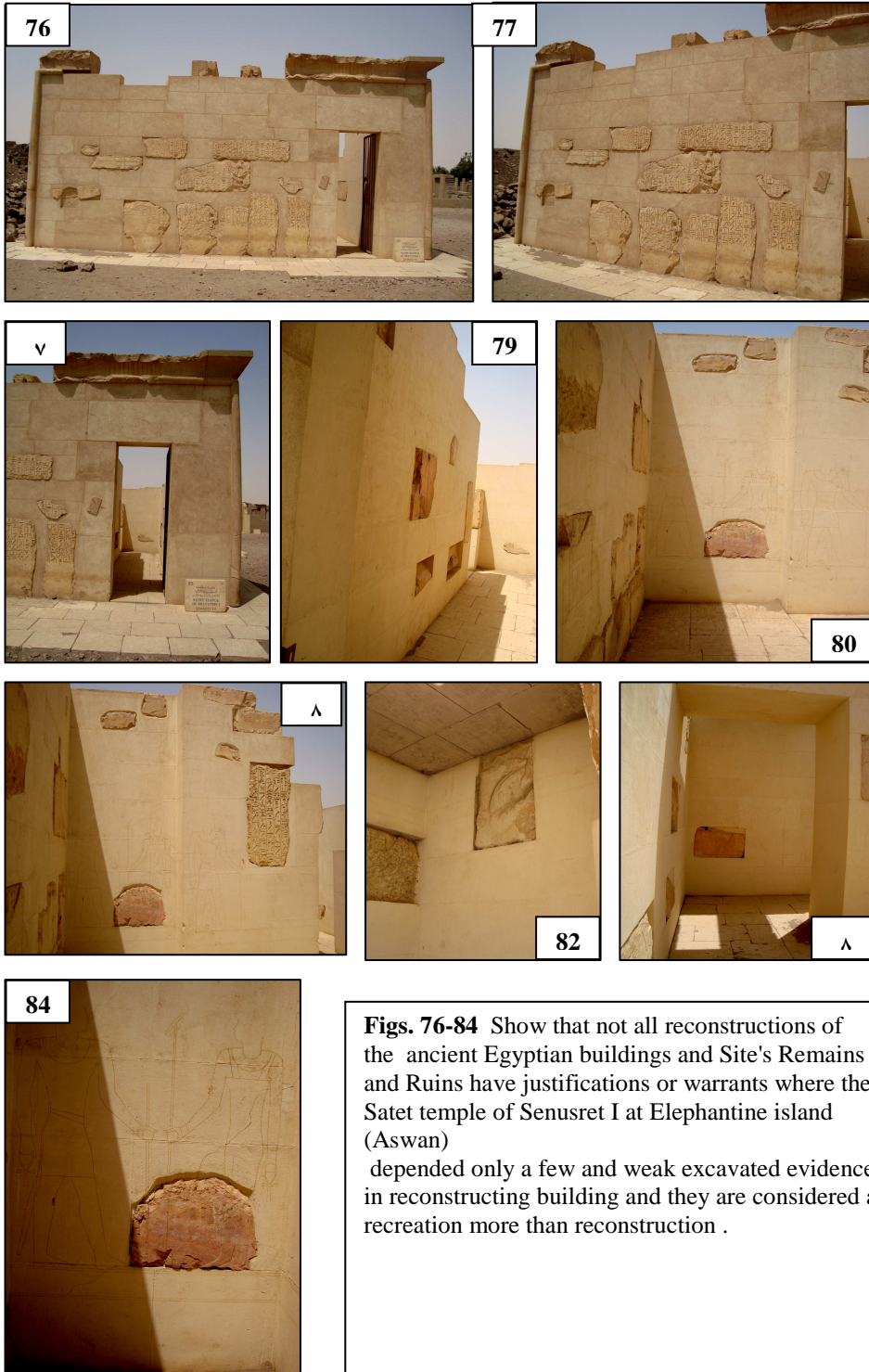


**Figs. 64-69** During the execution of reconstruction of the Red Chapel





**Figs. 70-73** The Red Chapel after reconstruction in open-air museum in Karnak .  
**Figs. 74- 75** The hypothetical digital modeling reconstruction of the Red Chapel.



**Figs. 76-84** Show that not all reconstructions of the ancient Egyptian buildings and Site's Remains and Ruins have justifications or warrants where the Satet temple of Senusret I at Elephantine island (Aswan) depended only a few and weak excavated evidence in reconstructing building and they are considered a recreation more than reconstruction .