THE INTERVENTIONS ON THE TEMPLE OF ATHENA NIKE

A study of restoration techniques and guidelines based on the interventions on the temple of Athena Nike on the Athenian Acropolis.

Master thesis in archaeology

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Preface:

I first explored the field of restoration during my Bachelor degree in a term paper concerning the restorations of the Parthenon, and what I learned through that work inspired me to choose restoration as the topic for my master thesis. The choice of the temple of Athena Nike as my main object of study was more reluctant, as I wanted to look further at the Parthenon, but in hindsight I am glad I followed the advice of my supervisor. Not only would the Parthenon have been far too big a project, but the temple of Athena Nike turned out to be much better suited to the type of thesis I wanted to write. My understanding and admiration for the works of restoration undertaken during the past 200 years have grown equally, as I explored this field, and I now see restored monuments from a new viewpoint. I have learned a lot through the work with this thesis, and hope to continue this path of archaeology in the future.

Though the finished product is my own work, I have received invaluable help throughout the process and wish to thank the following:
My supervisor, Erik Østby, for all his support and feedback during the writing process, and for the inspiration and enthusiasm for the discipline of classical archaeology he has passed on to me.
My parents, fiancé and siblings for their proof-reading and general support.
My fellow master-students for all the encouragement I have received and the discussions we have had over these past two years.
A special thanks to Yngve for making me feel at home in Athens, and introducing me to the scholarly community there.
Also a warm thanks to the Norwegian Institute at Athens for providing me with somewhere to stay, and to Ms. Lembidaki for showing me around the worksite of Athena Nike.

Bergen, 16 May 2010.

Summary in Norwegian/Sammendrag på norsk:

I denne oppgaven skal jeg se på utviklingen av restaurasjonsmetoder og -prinsipper i sammenheng med restaureringene av Athene Nike tempelet på Akropolis i Athen. Tempelet ble bygget i andre halvdel av det 5. århundre f. Kr, som en del av det klassiske Akropolis, men ble revet av ottomanerne i 1686 under deres okkupasjon av Hellas.

I 1834 ble tempeldelene gjenfunnet i en forsvarsmur, og den tyske arkeologen Ludwig Ross foretok den første gjenoppbygningen av tempelet ved bruk av metoden kjent som anastylosis. Arbeidet ble fullført av Kyriakos Pittakis i 1844. I 1935 ble det observert store sprekker i bastionen som tempelet sto på, og en ny anastylosis ble gjennomført i årene mellom 1935 og 1940 av Nikolaos Balanos og Anastasios Orlandos. I 2000 begynte en tredje anastylosis av tempelet i regi av The Acropolis Restoration Service. Dette prosjektet skal ferdigstilles i år. Dermed har dette tempelet gjennomgått tre fullstendige anastyloser i løpet av ca 200 år.

Jeg har forsøkt å koble disse tre restaurasjonene opp mot de gjeldende reglene for restaurasjonarbeid i den aktuelle tidsperioden, nemlig prinsippene fremsatt av Leo von Klenze i 1834, Charter of Athens fra 1931 og the Venice Charter fra 1964. På denne måten har jeg forsøkt å se hvor nøye retningslinjene blir fulgt, i tillegg til hvilke problemer som oppstår ved en slik restaurasjon og hvilke løsninger som blir fremlagt for problemet i de forskjellige periodene. Jeg har fokusert både på metodene som er blitt brukt, og på spørsmål av en mer samfunnsmessig karakter som har oppstått, hovedsaklig i forbindelse med den nyeste restaurasjonen.

Jeg konkluderer med at alle tre restaurasjonene har veldig forskjellige tilnærminger til retningslinjene og problemene som oppstår. Den første restaurasjonen holder seg til retningslinjene for å ha noe å støtte seg på, da et slikt arbeid aldri er gjort før, og gjennomfører en veldig god jobb alt tatt i betraktning. Den andre restaurasjonen fokuserer mer på egne ideer og overbevisninger enn på retningslinjene, men er og utført av mennesker som har mye erfaring innenfor akkurat dette emnet. Denne restaurasjonen skaper endel store problemer for ettertiden i bruken av material og metoder. Den siste restaurasjonen holder seg til retningslinjene, og legger til egne presiseringer for at arbeidet skal bli så etterprøvbart som mulig. En fullstendig vurdering av denne restaurasjonen vil måtte vente til publikasjonen er offentlig, men foreløpig ser resultatene lovende ut.

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1. Introduction

In 1835 a Turkish fortification was dismantled on the Athenian Acropolis. In the materials used to build this fortification archaeologists found marble blocks and fragments that were thought to have belonged to the classical temple of Athena Nike, last documented by travellers to Athens in 1675. By 1836 enough blocks had been found to attempt a rebuilding of the temple, and the first complete rebuilding of a classical temple from the original building materials was undertaken. In 1844 the temple once again stood for all to see.

Nearly 100 years later, in 1935, the bastion underneath the temple was in danger of collapsing, causing damage to the temple and a second intervention was needed. This intervention involved the dismantling of the entire temple and the bastion beneath, and their subsequent rebuilding. This intervention was finished in 1940.

In 1971 a UNESCO survey of the Acropolis monuments advised urgent conservation of the monuments due to damage caused by pollution and decay. A special committee was founded in 1975 to carry out this work on the Athenian Acropolis. In 2000, after working on the other monuments, they once again started the dismantling and rebuilding of the temple of Athena Nike. Now in 2010 this third intervention is supposed to be completed.

Thus, the temple of Athena Nike has been completely rebuilt three times in the past 200 years.

The latest intervention has brought about a new debate on the topic of restoration, and it is around this debate that my thesis will centre. The main questions in this debate concern the methods used in the restoration processes, the need for the interventions and the implications the work has had on the monument, both in term of values, but also more political, social and cultural questions connected to such an intervention. In this thesis I hope to take the debate further, and apply the same questions to the two previous interventions as well.

1.1 Research questions and aims

The questions I will look at in this thesis are connected to three different main topics: The history of the temple, the restorations of the temple, and the debate.

- Why has the temple been restored?
- How has the temple been restored?
- Has the restoration changed the temple?

My first research question is an opening to look at the history and background of the temple of Athena Nike. What kind of building is this, when was it built, what has happened to it throughout history? This question will hopefully give the reasons why a restoration of this building is necessary.

The second question is more concerned with the actual technicality behind the restorations. What methods have been used in the different phases of the restoration, and why? This question also deals with the more "conventional" parts of restoration. Which rules exist for restoration work, and how have they been followed? I will also here try to compare the methods and guidelines used in the three different restorations to see the changes over time, and in the evolution of the archaeological discipline.

The last question is a look at the reactions the restorations caused. I want to look at how the interference with an archaeological building of such age and importance has been perceived and received. What consequence has the restoration work had on the building's value, has it changed the type of value the building has? I will also touch upon the subject of political, social and cultural questions that have arisen with the current restorations.

The first two questions are to a great degree already studied in connection with studies of the first two restorations, but not for the third restoration, and I will look at them again here as they are needed as a background for answering the last question.

The goal of this topic is not necessarily to reach any new conclusions concerning the archaeological interventions on the temple of Athena Nike, but rather to sum up the restoration work done on the temple. I want to look at how the different restoration projects connect to the other interventions, but mostly, how they connect and interact with the guidelines and principles for restoration at the time. I hope in this way to gain an overall view and understanding of the "hows" and the "whys" connected to the restorations of the temple of Athena Nike, including the ongoing work, but also of how the problems connected with a work of restoration, and the solutions to these problems have changed during these 200 years.

1.2 Geographical and temporal delimitations

The main subject of this study is the temple of Athena Nike, but in order to understand the whole picture of the interventions, the geographical limitation must also include the bastion on which the temple is situated, and also the rest of the Acropolis monuments to some degree, as they all stand in close relation to the temple of Athena Nike (see fig. 1).

I will be looking at the temple on two different levels, which emphasize different aspects in the research of the temple. On the one hand I will be studying the temple on a micro-level, where the main focus will be on the actual restoration work, the techniques and problems. On the other hand I will look at the temple's history and the work in a history of restoration context, and will therefore be seeing the temple on a macro-level.

On the micro-level, the temporal delimitations will be focused around the temple's building phase in the second half of the 5th century BC, and the restoration work of the last 200 years, as these periods make up the background for the interventions and the interventions in themselves. On the macro-level, the temporal delimitations will span the entire 2500 years of the temple's existence, from the middle of the 5th century BC, to our present time, but with most emphasis on the latest 2-300 years.

1.3 Sources

The material background for this study is the temple building in itself, but I will be using the written sources concerning the interventions and history rather than the archaeological material. This is mainly because the material evidence from the interventions of the 1830's and 1930's has been removed in the current intervention, but is still available through the reports and studies of the earlier interventions.

The sources for the third intervention are slightly more difficult as I will have finished this thesis before the restoration is completed and published. My main sources here will be the preliminary study prior to the restoration in which the planned measures and methods are described, as well as reports during the process, and finally a visit to the temple in order to determine the outcome of the restoration.

I will also to some degree be using the results of the other restorations on the Acropolis carried out between 1975 and now, as they have been based on the same procedures and principles as the current restoration of the temple of Athena Nike.

The written sources I will be using are:

- Intervention reports
- Surveys prior to interventions
- Literature, both contemporary and later, concerning the background and history of the temple of Athena Nike
- Reports from conferences concerning the newer Acropolis restorations, especially the criticism of the work.

1.4 Problems and reservations

There are two main problems connected to this research which may cause erroneous interpretation or understanding of the material. They are connected to representativeness and objectivity and might create problems in my discussions of the work. I will therefore point them out beforehand.

The problem of representativeness is due to the available source material. My thesis is based on written accounts of the restorations, but during the 200 years this thesis is concerned with, the practice of what is written and published, or even discussed, has changed. This causes an imbalance between what is known about the different restoration projects, and one must be aware that the lack of source material about a certain procedure does not necessarily denote absence of this procedure. As the report for the third restoration has not been published yet, there is very little criticism for the methods used in this intervention, while the earlier interventions have had their methods thoroughly studied and evaluated. At the same time there is a lot of literature concerned with the socio-political problems of the latest intervention, but next to none concerned with the same aspect of the previous interventions, as this was not a topic of study at the time. This can give the impression that there are no methodical questions connected to the latest intervention or that there were few socio-political problems or objections to the two first

restorations, when the truth is rather that the source material simply does not contain this information.

The problem of objectivity is based on this thesis' placement in time in relation to the different restorations. I find it much harder to look as objectively at the third intervention of the temple of Athena Nike as I can at the restorations that are much more distant in time. I have tried my best to stay objective, but readers should be aware of this problem before they carry on.

1.5 Thesis layout:

This thesis will be divided roughly into three parts. In the first part, chapters 2-3, I will lay the foundation for my study. I will give a general description of the temple of Athena Nike (chapter 2) and the theoretical and methodical background for this thesis (chapter 3). Chapters 4-5 will provide the historical background, with an overview of the history of restoration and its principles in chapter 4 and a study of the restorations of the temple of Athena Nike in chapter 5, linking it to the overview in the previous chapter. In chapters 6 and 7 I will bring all of this together to answer my research questions, and look at the methods used in the restorations (chapter 6) and the socio-political questions and problems of the restorations (chapter 7). Finally I will give some concluding remarks in chapter 8.

2. Description of the monuments of the cult of Athena Nike

Here follows a description of the development of the cult of Athena Nike, and the monuments connected to it. The cult can be archaeologically traced back to the early archaic period, but may be even older. The main focus however is on the fourth phase of the cult, which is the phase applicable to this thesis.

2.1 Building phases

The bastion on which the cult of Athena Nike is found originates from the Bronze Age. It was built either to flank a major entrance to the Bronze Age Acropolis or as a preliminary defence post to the gate proper. (Mark 1993:15) In the Bronze Age the bastion stood at least 140 m above sea level, it has probably been even higher, as there are signs of a collapse, but it is difficult to estimate its previous height. Any signs of the bastion used as a cult site before the archaic period would have disappeared in the collapse.

2.1.1 Phase 1

The earliest evidence we have for a cult site on the Nike bastion is from the early archaic period. The bastion was cleared after the previously mentioned collapse, and a rubble crown was rebuilt at a lower height. A block of an archaic altar was found underneath the later building phases of the cult, bearing the inscription: “Altar of Athena Nike. Erected by Patrokles.” (Mark 1993:33). Judging by the letter forms the inscription has been dated to 580-530 BC. The use of the full name of the goddess suggests a newly founded cult, making it likely that this is the very first phase of the Athena Nike cult on the Acropolis. Other finds of this period include a statue base for a cult statue, and possible finds of 2 *distyle in antis* structures, which might or might not have housed the cult statue. These finds date the phase of rebuilding of the bastion to roughly 580-560 BC. This fits with a general rebuilding of Acropolis in the second quarter of the 6th century, when a cultic renewal took place. (Mark 1993:16-34).

2.1.2 Phase 2

The next phase of the bastion shows traces of destruction, but no rebuilding. This corresponds both in time and evidence to the sacking of the Acropolis by the Persians in 480/79. (Mark 1993:128) After the battle of Marathon the Persians had been slowly building up an army to conquer the Greeks, and in 480 BC they attacked Greece and Athens and sacked the Acropolis. In 479 BC they returned again, and this time razed what had been left standing the first time. With these raids the old archaic Acropolis was ruined, with all its monuments and statues. An allied Greek army defeated the Persians at Plataia the same year and drove them off the Greek mainland, but the damage had been done. (Hurwit 1999:135-138).

In the 30 years following this, Athens flourished, due in part to the newly founded Delian League, an alliance of Greek city states, of which Athens was the head. However, even though there was great development in other areas of Athens, there was no rebuilding on the Acropolis in this time, and this has been accredited to the so-called "Oath of Plataia". The Oath, said to have been sworn by the Athenians between the two Persian raids, committed them to fight to their death, remain loyal to their commanders and not rebuild any temples the Persians had destroyed. The monuments were to be left as ruins to show the barbarity of the Persians. The historicity of this oath has been debated, and especially the ban on temple rebuilding. A stele found at Archarne refers to the oath, but without a mention of the rebuilding ban. The reason for this might be that the stele is in fact from a later time, when the temples already had been rebuilt; so referring to this specific part of the oath was unnecessary or even embarrassing as that part of the oath had already been broken. However, the archaeological record seems to support the existence of this part of the oath, as there was a stop to all religious building activity in Athens from 479 until ca 450 BC. (Camp 2001:60, Hurwit 1999:138-145, Meiggs 1972:504-507). This moratorium seems to have prevented the rebuilding of the Nike sanctuary, but probably did not stop the worshipping at the site. There are possible finds of a wooden altar erected on the bastion in this period. (Mark 1993:40-41).

2.1.3 Phase 3

The next rebuilding of the bastion occurs around the middle of the 5th century judging by architectural criteria. This also fits well with the historical facts as we know that the rebuilding of

the other sanctuaries ruined in the Persian attack began around 449 BC. The justification (if any was needed) of the rebuilding has been explained by a peace treaty between the Delian League and the Persians of about the same time. The treaty, known as the Peace of Kallias, seems to have annulled the Oath of Plataia, and the rebuilding could start again. (Hurwit 1999:154-157).

In this phase we find traces of a cult-building, a naïskos with a Π-shaped plan. The building was walled on three sides, and open to the east. Made of poros stone, it measured 3.12 x 2.47 m. (Lembidaki 2007:24). Five blocks of its euthynteria were found *in situ*, and the rest of the structure was partly damaged by the last phase of the cult and later by the modern Turkish crypt. The naïskos showed skilled workmanship, and an attempt at a reconstruction based on the finds and similar structures shows it as probable that it had three courses of wall blocks, entablature and a gabled roof. A repository made from the Phase 1 statue-base was set in the NW corner of the naïskos, and although it is unusual to find votives buried against structures in this way, it has occurred, one example is the Artemis temple at Delos. (Mark 1993:53). The naïskos had 2 altars connected to it, a rectangular altar on an axis to the east, and a possible square altar toward the northern edge of the bastion. A closer dating of this phase in connection with the Older Propylaia and the other monuments in the area, gives it a date around 465-435 BC. (Mark 1993:42-59). At some point in the following years the rectangular altar was enlarged with mud brick.

2.1.4 Phase 4

The final phase of the sanctuary is often connected with the Periklean building programme that renewed the Acropolis between 450 and 400 BC. This phase saw the bastion redrawn to match the new Mnesiklean Propylaia. The bastion was given a new sheathing of Piraeus limestone ashlars, backed by poros blocks which made the sanctuary higher, larger and more rectangular and brought it up to the level of the new Propylaia. The sheathing was crowned with a moulded course of pentelic marble. The sanctuary was now approachable either through the Propylaia, which seems to be the primary entrance, or up a small stair on the northern end of the bastion. (Mark 1993:69-71). A new temple in pentelic marble was also built in this phase, the temple now known as the temple of Athena Nike.

The temple of Athena Nike is a so-called *amphiprostyle tetrastyle* temple. The terminology explains the shape and size of the temple. The "amphiprostyle" shows that the temple had a portico of columns in both the front and the back, and "tetrastyle" refers to the number of columns in each porch, in this case four (see fig. 2).

The use of amphiprostyle in temple building is not usual in ancient Greece, where one seemed to prefer peripteral temples where the colonnade ran all the way around the building or *in antis* temples with columns placed only in the front, which was more economical than the peripteral version. The first attested amphiprostyle tetrastyle temple in Greece is the temple of Ilissos, which bears many similarities with the temple of Athena Nike, so many in fact, that many scholars claim them to have the same architect. The temple at Ilissos measures 12.68 x 5.85 m, has Ionic tetrastyle porches, but was built without an opisthodome. (Dinsmoor 1950:339, Mark 1993:84). The temple of Athena Nike measures 8.17 x 5.40 on the stylobate, and is thus both narrower and shorter than Ilissos. The temple of Athena Nike has neither opisthodome nor pronaos, but still retains the regularity of an *ante* temple by having two piers *in antis*. The cella of the temple is wider than long, with the measurements 3.78 x 4.14 m. (Gruben 1986:190-192).

The reason for designing the temple as an amphiprostyle might be found in its location. Perched on a bastion overlooking the approach to the Acropolis the temple would be seen from the back as one ascended the sacred rock, so the back needed to be decorated like the front, but the size of the bastion would not allow for a peripteral colonnade.

In the building of the temple of Athena Nike the architect did not opt for grandeur and monumentality, but rather for grace and daintiness. This vision is reinforced by the use of the Ionic style throughout the temple. Pure Ionic was not much used as a building style on the mainland, being a regional style used mainly on the Ionic islands. With the building of an Ionic temple on a public spot like the Acropolis, a new interest grew for the Ionic building style. The temple of Athena Nike is built in pure Ionic style, even though the columns show proportions closer to those of the stockier Doric columns. They are 4.05 m high and 0.52 m wide, giving them a ratio of height to lower diameter of 7.82:1. The intercolumnation is 1.03 m, which gives a proportion of nearly 1:2 between lower columns width and intercolumnation. Many scholars think the columns are too heavy or stocky for the otherwise delicate building. (Gruben 1986:192, Mark 1993:72-74).

The temple shows some of the latest fashion of the time in temple building. The column bases and capitals are of a type new to Attica in the classical period, and the temple has a stepped architrave, divided into three *fascie*. This is the first example of such used on the exterior of an Attic building. (Mark 1993:72-74).

The temple also shows refinements typical of the grandeur of the Periklean building programme, which are otherwise not usual in Ionic buildings. The axis of the columns leans back 2.2 cm toward the cella, the flank walls taper and lean in at the same angle, and corner columns match both, with their axis tipping diagonally 3.1 cm toward the cella. (Mark 1993:74). The temple does not however have a horizontal curvature of the crepidoma, but this was not usual for an Ionic temple, and maybe not thought necessary on a temple of this size.

The temple cella was secured with grills, from pier to pier, and from the piers to the antae. In addition two grills extra were set in between the antae and corner columns. (Mark 1993:75).

The upper parts of the temple are equally beautifully designed (see fig. 3). The stepped architrave is topped with a sculpted crown, upon which the frieze lies. The frieze runs around the whole temple, consisting of 14 blocks 0.45 m high. Most of the frieze has survived up to our time, and it is displayed partially at the new Acropolis Museum, partially as part of the Elgin Marbles in the British Museum. The frieze depicts battles on three of its sides, the north and west sides show Greeks fighting other Greeks and on the south side a battle which has been interpreted as the battle of Marathon. A divine gathering is depicted on its east side, the front of the temple. Much less material has been recovered of the architectural parts above the frieze. We know that the temple also bore a pediment with statuary, whose interior height was 0.555 m; sadly only fragments have been found of this, but Mark claims the west side depicted an Amazonmachy and the East depicted a Gigantomachy. Enough of the horizontal and slanting cornice has also been found to identify the shape of these, and preserved sima blocks show evidence of having carried acroteria figures. (Mark 1993:74-75).

A later addition to the temple and bastion is a marble parapet around the north, west and south sides of the bastion. The parapet, built around 410 BC judging by the sculpture-forms, was 1.05 m tall with a sculptured exterior depicting Nikai leading animals to sacrifice or showing off trophies from victories. (Mark 1993:76).

The cult statue was according to an ancient scholar, Heliodoros, a wingless goddess, with a pomegranate in one hand, and a helmet in the other. Not much is known of her otherwise, neither pose nor size. (Lembidaki 2007:25-26). Mark claims that the cult statue has been the same since Phase 1 of the temple, and that it was removed during the Persian sacking, returned and given a new base in Phase 3 before being moved to the current temple. If this is true, then the evidence of the base attests that it was a seated, less than life-sized figurine. It is dated to roughly 580-560 BC. (Mark 1993:125).

2.2 The question of dating

The dating of the last phase of the sanctuary is more disputed. There are a lot of different sources to consider when dating this final phase: architectural, historical and epigraphical.

From historical sources we know that the massive building programme which renewed the Acropolis between 450 and 400 BC was fronted by one of the great politicians in Athens at the time, Perikles. He had a wish to rebuild and renew the monuments, and the classical phase of the Parthenon, Propylaia and in all likelihood also the Erechtheion are results of this programme. In the *Life of Perikles*, written by the writer Plutarch in the second century AD, he lists the monuments built by Perikles' programme, but the temple of Athena Nike is not mentioned. (Hurwit 1999:158). Whether Plutarch just left out the temple of Athena Nike or if it actually was not part of the Periklean programme is hard to say for sure, but the temple shows great similarities to the other monuments of the programme. This includes the refinements used in all the buildings of the programme, especially the similarities between the refinements of the Erechtheion and Athena Nike, refinements normally not used in the Ionic order. In addition both temples show use of the T-shaped dowels to secure the marble blocks in the stylobate and antae and also the practice of dowelling the column bases to the stylobate. (Mark 1993:85-86).

The relations between the temple of Athena Nike and the Propylaia are also important when dating the temple. The Propylaia built by the architect Mnesikles show clear signs of having been modified to fit the temple of Athena Nike, rather than both buildings planned together. Evidence on the lower west wall of the Propylaia shows that the raising of the bastion was planned before work started on the Propylaia, but perhaps the plan for a raising of the

bastion was decided before the actual shape and size of the temple were decided. (Mark 1993:79-82). In addition marble chippings from the building of the Propylaia have been found on the bastion level of Phase 3, showing that work began on the new Propylaia before the bastion was raised. However, it seems that by the time the Propylaia were finished in 432, the plans for the temple of Athena Nike were also finished. This is evident in the proportions used on the two buildings, and also the harmony between the monuments, where the temple of Athena Nike seen from the south west wing of the Propylaia fits the space perfectly (see fig. 4).

In stylistic analysis the Nike temple parallels buildings like Erechtheion (420-413), the Propylaia (437-432) and Ilissos (435-430 BC). The architectural evidence points to a building date sometime between the close of the Propylaia project in the late 430's and the early years of the Erechtheion project ca 420. (Mark 1993:85-86). A stylistic analysis of the frieze, compared to document reliefs with absolute dates, puts the frieze at around 420-418 BC, according to Mark; thus providing a *terminus ante quem* for the lower parts of the building.

Two inscriptions are central in the epigraphical and literary sources. The one, known as the Nike temple decree *IG* I³ 35, commissions the office of a priestess for the temple to be paid a salary of 50 drachma per year, and also commissions doors for the sanctuary, a temple to be designed by Kallikrates, and an altar in proper material. This decree has been dated to around 450 BC due to the use of a three-barrelled sigma, which went out of use in 447 BC.

On the opposite side of the stele bearing the Nike temple decree, an addition was inscribed. *IG* I³ 36 is dated with certainty to 424/23, and describes the paying of the salary to the priestess. The only reason for this addition to be added to the last decree is either that payment has been delayed (perhaps because the temple was), or a change in payment plans.

All this evidence together makes it hard to date the temple. If one sees the Nike temple decree to correspond with the current temple, Phase 4, then we get a 25-30 year gap between the commissioning of the temple in 447 BC and the finishing of the temple dated by the frieze (420-418 BC). Did the temple take that long to build or was there a delay? There seems to have been a halt in building activity on the Acropolis between 433/32-424 due to the Peloponnesian war (Mark 1993:77-79), but if the temple was started shortly after the decree it should have been finished before the war.

Scholars have usually seen the Nike Temple decree together with the current temple. But they cannot explain the 25 year delay from decree to execution. Some attribute it to a political struggle in Athens at the time between conservatives who wanted a new temple of Athena Nike, and Periklean radicals who wanted to complete the Propylaia symmetrically. Some scholars also claim that the plans for the temple of Athena Nike were used for the temple at Ilissos in the mean time. (Wesenberg 1981). Others again consider the dating criteria of the sigma as too vague, and see the decree as from 420 BC too. (Mattingly 1961). And some scholars, among them Mark, see the decree as written for the Phase 3 temple, rather than the latest, because of the need for doors, and lack of altar in proper material in Phase 3. (Mark 1993:115-122). This however makes one question Kallikrates as the architect of Phase 3. The simplicity of the temple does not match his work on the Parthenon. Mark however claims that the Phase 3 temple is indeed built by Kallikrates, and its simplicity is due to lack of financing at the time. She argues that the decree for the priestess' salary marks an expansion of the cult, in which the payment was moved to a possible festival month and the Phase 4 temple was built. This coincides with the expanded Phase 3 altar being used while the new temple was under construction. The new building of Phase 4 should then coincide with a second peace treaty, the Peace of Nikias, around 424/23 when the temple was begun, and directly followed by the building of the Erechtheion. The break in the Periklean programme from Propylaia to the temple of Athena Nike she sees as due to financial problems, rather than political. Mark does not question who the architect of the new Nike temple is.

Meiggs (1972) offers a different explanation, where the decree is indeed tied to the Phase 4 temple. He favours a peaceful relationship between Mnesikles and Kallikrates, and therefore between the Periklean radicals and the conservatives, and explains the delay in the building process as due to Kallikrates working on other projects until around 420, when he had time to work on the new temple of Athena Nike. (Meiggs 1972:502-503).

Without new evidence the question of dating of the last phase of the temple may never be satisfactorily solved. I will not dwell any longer on this issue, as it is not directly relevant to my research concerning the temple.

3. Theoretical perspectives and methodical background.

Due to the nature of this thesis, and the sources on which I base my results, it is hard to speak of method and theory in the normal sense.

On the one hand my thesis is based on the written accounts of restoration work as well as the underlying rules for such work, and the post-work criticism. My analysis of these texts will hopefully give me the information needed to answer my research questions. Thus my thesis is purely theoretical. The framework for my analysis or the theoretical perspectives on which I will base my conclusions is the different principles and charters of restoration that have been the existing guidelines at the time of the restorations.

On the other hand these written results have a scientific and methodical background, and to fully understand the written records I will also look more closely at both the actual method of restoration, anastylosis, and the branch of archaeology known as building archaeology which is the methodical backbone for this thesis.

3.1 Theoretical perspectives

The three interventions on the temple of Athena Nike are performed at very different times in history, 1836-44, 1936-40 and 2000-10. All three interventions base their work on a different set of principles with which they ensure the correctness of their work for future scrutiny. These principles will be my reference for the interventions.

3.1.1 Leo von Klenzes proposals for restoration of the Acropolis

The first set of guidelines used for the interventions on the Acropolis was suggested by the German architect Leo von Klenze. Von Klenze was the court architect of the Bavarian king, Ludwig I, and was already renowned for his work in restoring and building in the neo-classical style in Germany. After visiting the Acropolis he proposed these principles for the restoration work:

- To remove all fortifications with no archaeological, structural or "*malerisch*" interest.
- To clear the area and rebuild structures, starting with the Parthenon as it was most visible

from the town.

- To rebuild the monuments to support the original members. New parts should only be made if they were necessary to place old members upon. The new parts were in any case to be clearly different from the old, to preserve the icon of the picturesque ruin.
- To put remaining parts that could not be used in the reconstruction work in the Parthenon or Theseion for safekeeping, with the exception of parts that had a high artistic value, like for example unidentified sculpture fragments. These should be put in picturesque piles between the monuments to emphasize the picturesque ruin that the Acropolis had become. (Jokilehto 2002:93).

These principles, though suggested specifically for the Acropolis, follow the general trend of the time, and give great importance to the conservation of the picturesque setting of the monuments. Little or no concern was paid to the structures from other periods than the classical.

3.1.2 Charter of Athens 1931

In 1931 the first International Charter for the Restoration of Historic Monuments was adopted at the 1st International Congress of Architects and Technicians of Historic Monuments in Athens. 120 representatives from 23 countries participated, most of them from Europe. (Jokilehto 2002:284). The Charter lays down the very first international guidelines for restoration and conservation work, and to this end advises the establishment of international organisations for restoration, and expresses hope for the continuation of international collaboration in regard to monument preservation.

The Charter consists of seven short main resolutions called Carta del Restauro, and seven longer articles that encompass the general conclusions of the conference. These articles concern a wide variety of matters from doctrines and principles through specific methods of conservation and enhancement to the need for international collaboration. The articles were formulated after discussions concerning the practice of heritage management in the attending countries, after which a common ground was agreed upon. (For the entire Charter, see Appendix 2).

The Charter of Athens brings some new and important principles to attention, among others the rights of the community in regard to heritage in private ownership, where the community now is empowered to take conservatory measures in emergency cases. (Art. II). A

general tendency for the whole Charter is the appraisal and recommendation of conservative measures rather than restorative measures (Arts. I & VI), and also the use of "*all the resources at the disposal of modern technique*" for the consolidation of ancient monuments. (Art. IV). An important factor for this thesis is the Charter's approval of the use of reinforced concrete in consolidation works, and the concealment of eventual modern materials used for consolidation to preserve the aspect and character of the restored monument. The Charter puts most weight on the historical and documentational value of a monument.

3.1.3 Venice Charter 1964

> *Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity.*
> (Introduction to the Charter of Venice 1964)

The International Charter for the Conservation and Restoration of Monuments and Sites, more commonly known as the Venice Charter, was phrased by the 2nd International Congress of Architects and Technicians of Historic Monuments in Venice in 1964. Over 600 representatives from 61 countries participated in the congress whose goal was to re-examine the Charter of Athens in light of the increasing awareness and critical study in the field of monument conservation, and to expand its scope. (Jokilehto 2002:288). The new charter consists of 13 articles on methods and considerations for excavation, conservation and restoration, and the importance of making the results available so that they may be of use to others later. (For the entire Charter, see appendix 2).

In the introduction to the Charter it is emphasized that the Charter is an international set of principles, and that each country must be responsible for "*applying the plan within the framework of its own culture and traditions.*"

The Venice Charter encompasses the articles in the Charter of Athens, but is also more specific. The definition of a historical monument is expanded to also include larger sites or

settings which have acquired cultural significance (Art. 1). The monuments' value as art is emphasized, and the importance of preserving the contributions of all periods in which the building has been used, so as not to falsify the evidence (Arts. 3 & 11). The importance of preserving the intelligibility of a monument is also addressed in the Venice Charter for the first time (Art. 15).

This charter has a wider influence than the Charter of Athens, and is still the leading collection of guidelines for this kind of work 45 years later, but needs to be re-interpreted at intervals to make up for the new advances in archaeological theory and methods. (Petzet 2004:7).

In connection with the Venice Charter's 30th anniversary in 1994 the continued validity of the Venice Charter was examined by ICOMOS. They concluded that although both our technology and understanding of restoration work has evolved a lot through 30 years, the Charter is still equally valid. This is largely due to the Charter's broad area of application within restoration and conservation work, and its own recommendation of the use of tested modern techniques for conservation and construction work rather than suggesting specific techniques, as well as its wide definition of the term monument. The Charter is today considered a historic document, which must not be altered, but due to its broad definitions it can still be integrated into the works of our time. (Petzet 2004).

3.1.4 Additions to the Venice Charter

The current restorations on the Acropolis, supervised by CCAM (Committee for the Conservation of the Acropolis Monuments) are done following the guidelines laid down in the Venice Charter, and especially articles 2, 3, 6, 9, 10, 11, 12, 15 and 16. (Bouras 1994:91).

In accordance with the Venice Charter the CCAM have formulated five additional principles for their work. This is both to cover for the advances in technology and knowledge in the time since the Charter was signed, but also to better suit the architecture of classical Greece, where the buildings are made of structurally autonomous architectural components, and to protect the monuments role as symbols of the classical world.

These additional principles are:

- Reversibility, a precautionary measure to ensure that the building may be returned to its previous state as it was before the intervention. This is achieved by keeping interventions

to a minimum and by exhaustive documentation before any change is made, so that it is reversible.

- Preservation of the autonomy of architectural members and keeping in mind their simple static function. This is in respect for the original state of the monument.
- The operation should be restricted to those parts of the monument that have already been restored, so as to not interfere with the sections of the monuments still in their original state. Again in respect for the original.
- The monuments to be made self-conserving by restoring the ancient material, thus increasing the already present static sufficiency.
- The changes in the appearance of the monuments should be kept to a minimum, which is most important for monuments as well-known as the Acropolis buildings, symbols of the classical spirit all over the world. (Casanaki & Mallouchou-Tufano 1985:80).

3.2 Methodical background

3.2.1 Building archaeology

It is very important before any restoration to know as much as possible about the building that needs restoring or preserving, and building archaeology is one of the most used methods to gain this information. (Schuller 2002:35).

The study of ancient buildings became more important under the renaissance. This was mostly due to Europe's view of antiquity as an ideal. From this period onwards people began to travel to Rome and Greece to draw and describe in writing the ancient buildings, most often temples and other monumental buildings. These drawings and descriptions, often made by "tourists" and others not educated in archaeology or architecture, are today some of our most important sources to a lot of ancient buildings that have been razed by man or nature. (Gruben 2000:258-262).

During the 19th century building archaeology became established as a discipline, and the methods used in building archaeology today were developed during this time. The goal was to get clearer and more precise measurements of the buildings studied. It is also in this period that research was in some circumstances combined with actual restoration and preservation work.

(Schuller 2002:7-8). At the end of the 19th century archaeologists started excavating whole towns, and now the single building as well as the town lay-out became important. During this period archaeology started the long road to become the study of the whole of antiquity, with its history, culture and economy. With this the methods and ways of working in building archaeology also had to change. (Müller-Wiener 1977:153-154)

With the new way of looking at all objects as meaningful, one began to engage other specialists. In building archaeology an architect as well as people with a knowledge of building technology were needed. The disciplines in which a building archaeologist is schooled today vary between countries. (Müller-Wiener 1977:155)

Throughout the centuries building archaeology has developed differently in separate countries, where certain aspects of the discipline have been seen as more important than others, but in most countries there has been a change after the Second World War. Suddenly there was a great emphasis on nationality, and restoration or conservation of a country's national monuments was seen as very important. (Borbein et al. 2000:8, Gruben 2000:273-274).

Building archaeology is a very pragmatic science, whose methods are highly practical, and based directly on the work that needs to be done rather than theory. It is therefore hardly relevant here to describe all the methods used in buildings archaeology as they will surpass the intention and length of this paper. I will however very shortly sum up the work-process involved in the examining of a building using building archaeology.

Building archaeology is a science devoted to the entire spectrum of construction, from entire towns to small shacks. The main source of information is the building itself. This makes building archaeology very useful where other documentation about the subject is missing or incomplete. The goal is to get exact knowledge of the building one is studying, either for historical purposes, or to be able to reconstruct parts of the building as accurately as possible. One has to look at the planning and building process, the building's construction history, the dating of the individual building phases, the building's appearance and the alterations to it through time. One must also reconstruct the building's function, and look at the building technology issues and eventual damage to the building. (Schuller 2002:7). This is done by methodically examining the entire building. Firstly the building archaeologist and his team make

a complete inspection of the entire building. They then collect all the existing literature about the building, including plans and written and graphic sources. This is to gain an understanding of the building's history. The next step is to map and document the entire building. This is done by making measured drawings of every part of the building. The goal is "*to completely record a three-dimensional object in its current state (including all architectural alterations, deformations and structural details), true to scale, using dimensions that can be understood and reproduced*." (Schuller 2002:11). All information about the building's form, function and structure is analysed, as are all the building materials and traces of tool- or machine work. The interiors of the structure are analysed via cracks or damaged parts of the building if possible, or by foundation drilling or the opening of a few centimetres of plaster. This is important both to give an idea about the building's age and stratigraphical layout, but also to see how the building is constructed. Finally the building is dated. This can be done in many different ways, via stratigraphy, stylistic classification, the techniques used in building or material work, the materials themselves, inscriptions on the building, stonemason's or carpenter's "signatures", or scientific dating like dendrochronological dating of wooden beams, ^{14}C or thermoluminiscence dating. (Schuller 2002:9-31).

The building archaeology concerned with buildings from classical antiquity works in close cooperation with archaeology. One of the biggest challenges in restoration in Greece, the restorations on the Acropolis, have been done using building archaeology and the restoration method called anastylosis. (Schuller 2002:33).

3.2.2 Anastylosis

Anastylosis (Αναστήλωσις, plural Αναστήλωσεις) means restoration in its widest sense. Its origin is a Greek word that today means "to erect a column (or building) again", and it is now used far outside Greece. (Dimacopoulos 1985:16-18).

The original use of the word comes from religion where it described the triumph of "restored" Orthodoxy over Iconoclasm, but now in archaeological restoration it is seen as the triumph over reconstruction. A more correct or direct translation of αναστήλωσις to our alphabet is *anastelosis*, or even *anastilosis* as the Greek phonetic language does not have a "y" sound, but

as the meaning of the word has changed over time, it is the version “anastylosis” which now refers to this specific method of restoration, and I will use it.

The legitimacy of the use of anastylosis as an internationally accepted form of reconstruction is first mentioned in the Charter of Athens from 1931, which states*: “In the case of ruins, scrupulous conservation is necessary, and steps should be taken to reinstate any original fragments that may be recovered (anastylosis), whenever this is possible; the new materials used for this purpose should in all cases be recognizable.”* Art. VI, Technique of Conservation.
Here anastylosis is mentioned under the headline Technique of Conservation, and is therefore classified as a conservation method. The tradition of anastylosis as a method of conservation has been generally accepted as the best way of conserving pieces of a monument in their rightful places.

In the Venice Charter from 1964, however, anastylosis is not mentioned under the heading of “restoration” or “conservation” but rather under “excavation” where it is stated in article 15: *“All reconstruction work should however be ruled out* “a priori”. *Only anastylosis, that is to say, the reassembling of existing but dismembered parts can be permitted. The material used for integration should always be recognizable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form.”* Again here, the use of anastylosis as a method of conservation is emphasized.

The term anastylosis is today taken to signify the reuse of ancient building components in a restoration work thereby limiting the use of new pieces, as well as making the monument more comprehensible and effectively securing its conservation. (Dimacopoulos 1985:16-18).

Anastylosis is the main method used in the restorations of the temple of Athena Nike, and to a large degree also in the restoration of the other monuments on Acropolis. This method involves using the original materials in their correct positions to restore the former building. Because of the way the Greek temples are built, with custom-made marble blocks that fit perfectly together without mortar, if one has all or most of the original blocks and the foundation, one can reconstruct the building quite accurately. (Schuller 2002:36, de Waele 1997). In the case of a building at risk of collapse the method allows for a disassembly of the building after extensive documentation, and its careful reassembly, where missing parts may be substituted with modern

materials for structural integrity. The use of anastylosis as a legitimate restoration method is laid down in the Charter of Athens and the Venice Charter, but there are however some criteria to ensure correct use of the method:

- Scientific documentation of the structure's original condition
- Determination of the correct position of each component
- Supplementary components limited to those needed for structural integrity, and they must be instantly recognizable as replacements. (Venice Charter 1964, Article 15).

Anastylosis is much used today, and in a lot of cases archaeologists are tempted to, or feel pressured to, rebuild columns and temples to some degree to make the monument more visible or intelligible. It is always tempting to rebuild to show former grandeur, but one has to be sure that it is the right thing to do in the circumstance. The real commissioners for works of anastylosis are the tourists, although they are not aware of it. Often the need to please the tourists can influence the political or archaeological decisions, and restoration work can be done that is not scientifically justified. (Gruben 2002:287, Schuller 2002:35-36).

There are problems when using anastylosis, and some of the arguments against the method centre on two topics in particular, authenticity and reversibility.

The question of authenticity is closely related to the historical value of a structure. Even though a restoration is done using anastylosis and the original material, the building will have lost some of its value as a historical source, because it will have been rebuilt *now*, and not left like it was *then*. Any errors of interpretation of the material might also result in errors in reconstruction, which might prove impossible to correct or go undetected. The authenticity discussion also poses a question (and especially in the case of the temple of Athena Nike) of how many times one can restore a building, even using the original material, and still call it the same building. When does it start to lose its authenticity? I will look at this question later in my thesis.

The question of reversibility is more related to the physical damage done to the monument. However carefully a building is dismantled, there will always be more damage done to its members than if it had not been dismantled. This point is valid, but is it less valid if the monument would have collapsed without the intervention?

The debate around the use of anastylosis in connection with the interventions on the temple of Athena Nike will be looked at in more detail later on in the thesis.

4. History of research: Restoration and its principles

> *"Die erste und hauptsächliche Regel bei jeder Restauration ist sonach die: So wenig wie möglich und so unwahrnehmbar wie möglich zu restaurieren, dem Alten nur seinen Fortbestand zu sichern und das Fehlende oder Abgehandegekommene genau nach dem Originale oder doch, in Ermangelung eines solchen, mögligst im Geiste des Originales wieder herzustellen."*

This statement, expressed by the German politician and architecture-enthusiast August Reichensperger (1808-1895), shows one of the views of restoration and construction work in his time. (Schmidt 1993:17). In the 200 years one has done restoration work based on scientific principles, the actual principles as well as the methods and execution of the work have changed. Very closely tied up to the history of restoration principles, is the question of value. What value a monument is seen to have by different restorers in different periods will inevitably guide their view of what needs to be done to the monument, and their methods in reaching their goal. I will here look at the evolution of the science of restoration, and the values and principles that govern it. My main focus will be on the developments that later influenced the work done on the Acropolis, as they are directly related to my topic and a full examination of the history of restoration would surpass the intention of this thesis.

4.1 14th - 15th century: The idea of eras of history

The current history of restoration starts in the 1400's with the Italian renaissance. It was in this period in Italy that the first ideas of history as bygone eras appeared. Scholars looked at the old buildings from Roman times and saw a historic past which could not be seen in totality. This sparked an interest for the art of this glorious ancient past. Sculptures and objects of art from antiquity were collected, and displayed in private collections. The very first works of restoration were commissioned by these collectors to make the items in their collection more whole. Here there were two leading themes, a restoration of the object to its' presumed original form, or preservation in its' broken state. The first approach was most usual. The same ideas were applied to architecture. (Jokilehto 2002:21-26).

During this time *De Architectura* written by Vitruvius in early Roman times was rediscovered. The text was a treatise on architecture, and the first contemporary source on the building and planning of the architecture from classical times. In the spirit of *De Architectura* the first architectural drawings of ancient buildings were done in order to recreate on paper the glory of the past. (Jokilehto 1986:11-13). In addition new treatises were written concerning architecture, in a literary and humanistic manner. In Rome there was a growing interest in the protection of ancient buildings, which until then often had been used for building material when they were no longer in use. In this period it was the aesthetic value of the buildings that was deemed the most important, as well as the usage value.

4.2 18th century: Age of enlightenment and the romantic ruin

From the 18th century onward pre-history was consciously looked upon as a record of our own history for the first time, and therefore became important to look after. So-called "Grand tours" to study the wonders of the ancient world were considered to be part of the education of a proper gentleman, and as a result of such tours we have the important descriptions and accurate drawings of ancient monuments and sculptures from among others Spon & Wheler and Stuart & Revett. There arose an awareness for cultural diversity and national identity, and at the same time the concept of universal value. (Jokilehto 2002:48-50).

The discovery and excavations of the buried town of Pompeii and Herculaneum were undertaken in this period, and the classical became the ideal. This gave birth to the pure neo-classicism as a reaction to the baroque and rococo styles.

In this same period we see the first tendencies toward a more scientific archaeology. The founder of modern archaeology, J.J. Winckelmann (1717-1768), formulated the first scientific methods for the studying and defining of ancient objects. Winckelmann saw the classical as the absolute ideal, and thought it important that people were able to distinguish between the pure original, and the newer additions. In this view Winckelmann also inspired the purist approach to restoration. (Jokilehto 2002:59-65).

On the subject of buildings, the broken ruin as an art-form was much appreciated. The picturesque was important, and there was a lot of emphasis on the poesy of ruins. Ruins were "built" for the natural, romantic look. Most of the romantic ruins we know today, among these

great works of architecture like the Parthenon and the Colosseum, are in fact most often a product of excavation and restoration, rather than natural ruins, but restored in the image of broken ruins (Schmidt 1993:47-53).

From the middle of the 18th century romanticism became the leading movement in Europe. With romanticism a new theory in restoration work was introduced: unity of style. Previously restoration of architecture or art had always been done in the style of the time, but now it was to be done in the original style. The objects, and especially monuments, were now seen to contain the history of the nation to which they belonged, and so had to be restored to their original style. (Jokilehto 2002:101-157).

4.3 19th century: A more scientific approach

Scientific restoration of archaeological ruins started between the second half of the 18th and the beginning of the 19th century. The 18th century vision of the ruin as an art form persevered, but the principles that governed the conservation and restoration of such a ruin started to take on a more scientific approach.

In the early 19th century there were different views on how the past should be preserved, and each was connected to different opinions of the values of the past:

The first restoration of the Colosseum in 1806 was inspired by the idea of every part of history as important. When a proposal for the restoration was submitted suggesting creating the weak wall as a buttress to stabilize the Colosseum by demolishing parts of the upper layers, there was an outcry. The counter-proposal by G. Camporesi, R. Stern and G. Pallazi suggested the building of a brick buttress to support the wall, which would perhaps not look authentic but would at least save every last fragment of the Colosseum for the future. This second proposal was accepted.

The second restoration of the Colosseum in 1823 showed another view entirely. When another wall was in danger of collapse the restorer G. Valadier proposed to build a buttress to support it, imitating the rest of the Colosseum in detail. The idea was to preserve the building as it was without changing the character of the heritage, a purely aesthetic view. Materials and methods should as far as possible resemble the ones used in classical times. Often the ancient

construction techniques were replicated, to create an exact copy. The practice of labelling the new alterations was used only sporadically. (Mallouchou-Tufano 1998:363-364).

The third view was that a building should be restored to its original form, even if this meant demolishing newer building phases and using parts not originally made for the building. In this way one got the original building in its pure style, but lost its entire historical context. (Schalles 2000:58). An example of this approach is the restoration of the Arch of Titus in Rome. The arch had undergone great changes since its erection after 81 AD, and was incorporated in the wall of a fortification. The restorers, Stern and Valadier, proposed a restoration using the better preserved Arch of Trajan in Benevento as a model. The Arch of Titus was dismantled, and the old parts were reassembled onto a new core. The missing parts of the arch were completed as copies of the arches of Trajan from Ancona and Benevento, but were left without the sculptured details from the rest of the monument, so that they were easily distinguishable from the original parts. This restoration was greatly criticized by some who claimed it to be a copy, while others acclaimed it. (Jokilehto 2002:83-85). The first set of restorations on the Acropolis followed this third approach, deeming the monument's classical form as the most important, and demolishing all other phases.

In Sicily a fourth idea was also tested. At Agrigento the remains of a number of buildings were found, but too little to consider a restoration. Instead the restorers, V. Villareale and the duke of Serradifalco, created an architectural sample *(German: Arkitekturprobe)*. This was a reconstructed part of an imagined possibility for a building, for which pieces were selected from the rubble of different buildings, disregarding period or placement. (Schmidt 1993:65-66).

4.4 New concepts and theories

The second half of the 19th century and well into the 20th century saw an increase in theories and debates concerning restoration work. And during this time some of the concepts and theories on which we base our principles today were formulated.

The question of where the limitations for restoration work should go was much debated. Of great importance for later work was the debate concerning restoration or conservation. This debate spread through Europe toward the end of the 19th century and was largely based on the ideas of

two men, each leading in their field in their own country. Eugène Emmanuel Viollet-le-Duc (1814-1879) was a well-renowned architect and restorer in France, and John Ruskin (1819-1900) was an art-critic and theorist from England. Viollet-le-Duc's definition of restoration was to reinstate a building to a completeness which may never have existed at any point of time, with a great emphasis on the artistic value of the monument. Ruskin on the other hand saw restoration as a negative measure that falsified the history and authenticity of the monument, and argued intensively for conservation instead. (Jokilehto 2002:157,174).

In 1883 the Italian engineer Camillo Boito formulated the first principles of scientific and judicious conservation of monuments in Italy. Boito saw the historical and documentary value of a building as the most important, and that in respect for the historical character of a monument, it should not be altered in any way. Boito proposed three principles of restoration:

- Conservation and repair work to be done only where absolutely necessary.
- To keep the number of additions to the monument as few as possible, and that if additions had to be done, that the material of these new additions must be clearly distinguishable from the old material.
- That every phase of such repair work must be recorded, and published as scholarly material.

These principles later became the basis for the Charter of Athens signed in 1931. (Casanaki & Mallouchou-Tufano 1985:19).

In the late 19th century in Germany with the restoration of Heidelberg castle, the question of what constitutes a part of our cultural heritage arose. In 1903 the Austrian art-historian Alois Riegl (1857-1905) published his *Der moderne Denkmalkultus, sein Wesen, seine Entstehung* in which he identified the different values that cultural heritage could be said to inherit:

- Memorial values: Age value, historical value, and intended memorial value
- Present-day values: Use value, art value, newness value (*Neuheitswert*) and relative art value. (Jokilehto 2002:216).

Riegl put a lot of emphasis on the visual values, and especially the age value, which in his opinion stood for the patina and wear of the ages on a building. The German art-historian Georg Dehio (1850-1936) reacted against Riegl's values as being too narrowly focused upon the visual values. Dehio claimed that the main reason for restoring or conserving a monument was

because it was a part of our national identity. He was the first to bring a social aspect into the restoration debate. (Jokilehto 2002:217).

Another important work in this context is *Teoria del restauro* by Cesare Brandi (1906-1988). This volume, published in 1963, has been very influential for modern restoration practices. Brandi, a professor in art history and director of the Central Institute for Restoration in Rome, emphasized the specificity of a work of art as the result of a unique process. This specificity must be taken into account when restoring, and the artistic style must be the focus of the restoration, not the other way around. Both the historical and the aesthetical aspects of a work of art must be conserved, and where there is conflict, the inherent value of the work of art must be given priority. Brandi also wrote that any additions should be conceived as a part of the historical aspect, and should therefore be conserved. (Jokilehto 2002:228-237).

4.5 20th century, an international cultural heritage

At the end of the 19th century a growing globalization and exchange of ideas led to the birth of the idea of an international cultural heritage. Unfortunately the world did not come to an agreement on this before the First World War, where many cultural treasures in central Europe were bombed and destroyed. At the end of the war cultural internationalism became important, and international organizations like the League of Nations (1919) and the International Museums Office (1926) were created. (Jokilehto 2002:284).

In 1931 the first International Charter for the Restoration of Historic Monuments was adopted at a congress in Athens. The Charter laid down the very first international guidelines for restoration and conservation work.

The Second World War brought destruction once again, and after its end even more cultural heritage was left in ruins. In the years after the war more international organizations were created to try to prevent the like happening again, and to promote co-operation in the fields of science, education and culture. The United Nations and UNESCO are examples of such organizations, and in the years following the war more specialised organisations were created, among them ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) in 1956 and ICOM (International Council of Museums) in 1946. More

international meetings were held in which different aspects of cultural heritage were discussed, among others in Italy in 1931, Delhi in 1956 and Paris in 1957.

In 1964 the 2nd International Congress of Architects and Technicians of Historic Monuments was arranged in Venice. 61 countries participated, along with members from ICOM, UNESCO and similar organisations. One of the resolutions of the meeting was an International Charter for the Conservation and Restoration of Monuments and Sites, more commonly known as the Venice Charter. The International Council on Monuments and Sites, ICOMOS, was founded in direct correspondence with the Venice Charter, and adopted the Charter as their guidelines.

5. Restorations of the temple of Athena Nike

> *"Hardly any other ancient temple has seen more phases of construction, demolition and reconstruction than the sanctuary of Athena Nike on the southwest bastion of the Acropolis in Athens." J. de Waele, 1997:28*

5.1 Short history 400 BC – 1830

Political unrest and economic difficulties put an end to the building on the Acropolis after the completion of the Periklean building programme. Perikles himself died from the plague in 429 BC, but evidence suggests that his visions for the last monuments were followed after his death. The Peloponnesian war broke out in 431 between the Delian League led by Athens and the Peloponnesian league led by Sparta. A truce was negotiated in 421, but war broke out again in 415 BC. After a decisive defeat to the Spartan army the Delian League was dissolved in 404 BC as part of the peace treaty that was now signed. With the dissolution of the Delian League wars raged through the country, and the stability which had grown under the league was shattered. The incessant warring of the Greek cities left Greece vulnerable to the Macedon king Philip, who conquered Greece in 338 BC. Philip's son Alexander, later known as the Great, expanded the Macedonian empire greatly under his reign, but died in 323 BC, of either malaria or poison. (Biers 1996:247-248). The great Macedonian empire was then divided, and the period following, now known as the Hellenistic age, was dominated by warring between the three new states. 2-300 years later the Hellenistic countries were incorporated into the Roman Empire. Both these great powers continued to erect statues and monuments on the Acropolis between the classical ones already standing, but no larger building activity was undertaken. In 267 AD a Germanic tribe called the Heruli attacked Athens, and in 396 AD the Visigoths did the same. Archaeological finds on the Acropolis show that it was attacked in one, or both, of these raids and the monuments were set on fire. Most of the monuments were not rebuilt after the attack; in fact monuments and statues were taken apart to rebuild and repair the most important of these, among them the Parthenon, and to make new defensive walls. (Hurwit 1999:285).

With the division of the Roman Empire around 330 AD the Greeks came under the East Roman Empire and Constantinople. The larger temples of Athens, the Parthenon and the

Erechtheion, were converted to churches during the 700 years that followed of Byzantine domination. The Propylaia was in this period, and in the centuries after this, used as a palace or fortification. In 1204 Constantinople, and with it Athens and the Acropolis, fell to the Franks, who built among other things a large Frankish tower onto the Propylaia. (Korres 1994:48-49). The Frankish rule lasted until 1456 when the Ottoman Empire seized Athens. Parthenon was converted to a Turkish mosque around 1460. In 1645 lightning struck the Propylaia where gunpowder was stored, and damaged it heavily.

The size of the temple of Athena Nike and the Nike bastion must have been in part the reason that the small temple did not suffer the same fate as the other monuments, but stood almost perfectly preserved until 1686. Since the temple was too small to be converted to anything and the bastion did not allow for other buildings to be erected on it, the temple of Athena Nike stood relatively unharmed in the 2000 years following its building. During the Turkish rule steps had been cut into its crepidoma down into the bastion where ammunition was stored, but it was virtually unharmed compared to the other buildings. In 1686, a year before the siege by the Venetians of the then Turkish Acropolis, the temple was dismantled and its blocks used for building a gun emplacement between the bastion and the Roman monument to Agrippa, and suddenly hardly a trace was left of the building. (Korres 1994:49-51).

In 1687 the Venetians besieged the Acropolis, and one of their cannonballs ignited the ammunition stored in the Parthenon, blowing up the monument. The Venetians drove the Turks from the Acropolis, but retreated a year later, leaving it to the Turks again. A new small mosque was built in the ruins of the Parthenon after this, and the Ottomans kept the Acropolis until 1821.

From 1821 to 1829 the Greeks fought what has been later known as the Greek War of Independence against the Ottoman Empire. During these years the Acropolis suffered heavily, being the main defensive stronghold of the most important city in Greece. The Acropolis was occupied and bombarded by both sides of the conflict in a battle that raged back and forth until the Turks surrendered in 1829 and the War of Independence ended. In 1830 the Greek state was recognized as an independent state by the Protocol of London. (Woodhouse 1991:135-156). This new state was the first time the Greeks had been free from occupation since the classical times, and they naturally looked to the west for guidance.

Until the 1600's Athens was not seen as an important town in European eyes. Lying on the outskirts of the Byzantine world, it was mainly known for its symbolic value as the birthplace and centre of philosophy, literature and science. The interest for ancient culture that had grown in the 1400's renaissance in Italy looked to the Roman past for inspiration, and the Greeks were hardly mentioned. This had partly to do with the Ottoman occupation, under which Greece was isolated from the western world, and not many foreigners were allowed to visit. (Schneider & Höcker 2001:12-13).

In 1675 a European group of travellers received permission to visit Athens, and the now renowned Spon and Wheler saw and recorded the state of the monuments of Greece's past. The Acropolis visited by Spon and Wheler was a very different one from the Acropolis we know today. A village had sprung up around and between the converted monuments. Their report, published in 1682 has later become very important, both as a historical document of the Acropolis, but also to show Europe that Greece also possessed great cultural treasures.

From the mid-18th century Europe had developed an interest in Roman and Greek classical culture, and work had been done to protect and display the works of antiquity. This stood in strong contrast to the Ottoman practice of changing or tearing down the Greek monuments and using the building material for new projects, as happened with the temple of Ilissos, which was dismantled in 1778 and used for building material for a fortification (Lawrence & Thomlinson 1996:97). A new trend now appeared in Europe, where one not only drew and recorded the monuments of ancient Greece, but the few who were allowed access to the monuments also brought home fragments of sculpture and marble. This practice culminated in Lord Elgin's removal of sculptures from the Acropolis monuments in 1801-1812.

The classicism movement was brought to Greece after the War of Independence by the architects and archaeologists who now could travel freely to Greece and record the art and architecture. A lot of these people also had an influence on the restoration work that followed. (Casanaki & Mallouchou-Tufano 1985:12)

5.2 First restoration 1835-44

In 1833 the last Turkish garrison left the Acropolis, leaving it entirely in Greek hands. The question now arose about what one should do with the area. A German architect, Karl Friedrich

Schinkel, suggested that the new king of Greece should have a palace built on the Acropolis, where the monuments would be the most exquisite garden ornaments. (Schneider & Höcker 2001:47-48). Another famous architect of the time, Leo von Klenze, opposed this idea, proposing instead the restoration of the Acropolis monuments. Von Klenze proposed that the monuments and especially the Parthenon should be restored and displayed as artistic creations from the classical times, free from later additions. (Mallouchou-Tufano 1998:361). This was the view that prevailed, and in late 1833 the Acropolis was designated as an archaeological project, under the supervision of the newly founded Greek Archaeological Service.

Work had begun on the Acropolis already in the spring of 1833. The first Greek archaeologist, Kyriakos Pittakis, began with small scale excavations around Parthenon. The visit of von Klenze, however, set new standards for the work to be done on the Acropolis, and in 1835 work began under the supervision of the German-Danish archaeologist Ludwig Ross together with the architects Stamatios Kleanthis (who was later replaced by Christian Hansen) and Eduard Schaubert.

It was the ideal of the romantic ruin of classical times, and the proposals by von Klenze that were influenced by the work in Rome in the 1830's, that created the Acropolis we know today. The first task on the Acropolis was to remove all evidence of later settlement, and especially the Ottoman buildings. In a short time the entire settlement that had occupied the Acropolis was demolished, and what was left were the stripped classical monuments, ruinous and bare.

During the cleansing of the Acropolis in the years that followed, work began under Ross to demolish the fortification between the Cimonean wall and the monument to Agrippa. A wall had been hurriedly built there, and the inside was filled with earth to support the artillery battery the Turks had erected there. In April 1835 they found the first marbles that clearly didn't belong to any of the standing monuments on the Acropolis, and it was quickly realized that these must belong to the temple of Athena Nike that travellers had seen in the 1600's. The fragments found were some blocks, 3 whole columns, capitals and parts of the frieze and architrave. The pieces were broken, but without traces of heavy artillery fire. It had earlier been believed that the temple of Athena Nike, known to have been used as a powder magazine, had suffered the same fate as the Propylaia and the Parthenon, and the explosion had removed all traces of it. This was now

disproved, and it turned out that only a hole cut into the bastion under the temple had been for powder storage. (Ross 1837:315-320).

By September the excavation team had uncovered a temple foundation in the southern end of the fortification, and at once saw the possibility for a restoration. The foundation bore a three-stepped crepidoma, and a stylobate with two column bases still *in situ* in the SE corner. The stylobate also bore clear markings of where the west columns were placed. By the end of 1835 nearly all the pieces had been found, and in December work began re-erecting the temple. (Ross et al. 1839:1-2).

Since the temple had already been demolished by the time the most well-known architects and archaeologists had come to Athens, there were no exact details about the shape of the temple. Before the restoration Ross had to study other temples as well as the few travellers' drawings and descriptions that were available in order to gain an understanding of what the temple might have looked like. (Ross et al. 1839:9). The temple had however been recorded briefly by the travellers Spon and Wheler who visited Greece in the late 1600's. They told about an Ionic temple, 9x15 foot and with columns and a beautiful sculptured frieze. From this description one had an idea of the shape of the temple. (Ross 1837).

During the restoration three columns were given new drums of pentelic marble, and one base was made in the same material. Some missing or ruined blocks of the cella-walls were replaced with poros limestone, otherwise the original blocks and fragments were used where possible. By May 1836 the temple was halfway restored, the columns had been re-erected, the north and east sides had been restored to architrave level, and the south and west to halfway up the cella wall. (Ross et al. 1839:1-9, Ross 1837).

The Greek archaeologist Pittakis, who had worked with the Acropolis since the Greek War of Independence, completed the rebuilding of the temple of Athena Nike in 1843-44 (fig. 5). Under Pittakis the south and west walls were completed, and he re-erected almost all of the architrave and ceiling beams, and tried to link the peristyle to the cella by laying the coffers of both porches. He also waterproofed the floor of the cella with a layer of building rubble, and fenced off the monument. Pittakis replaced parts of the frieze on the south and east sides including three of the four copies of the frieze currently in the British Museum that were donated to Greece in 1845. The fourth piece was broken under hoisting. (Casanaki & Mallouchou-Tufano 1985:15, Giraud 1994:79).

In 1837 the Greek Archaeological Society was founded and they took over the responsibility of the protection of the antiquities of Greece throughout the 19th century, while the actual work was carried out by the Archaeological Service. From around 1843, Pittakis manned the Archaeological Service by himself, continuing the excavations and dismantlements on the Acropolis. (Mallouchou-Tufano 1994b:71-72).

5.3 Second restoration 1935-40

In the 1860's the research on the Acropolis took on a more scientific approach, and now for the first time monuments outside the Acropolis also received attention. In accordance with the developments in the rest of Europe, workgroups were created to survey and document the work done, and the technical side of the restorations became increasingly important. Collaboration with foreign experts in the field of restoration had also begun, and the first foreign institutes were founded in Athens, starting with the French institute in 1843. (Mallouchou-Tufano 1998:362).

In 1875 the Frankish tower built onto the Propylaia was dismantled, and caused the first great debate in Greece on the value of the monuments of different timeperiods. Until then the removal of all non-classical material had simply been accepted. But despite the debates in Europe concerning the historical importance of monuments, the pure classicistic views were held onto by the Greek Archaeological Society. (Muss & Schubert 1988:216-218).

In 1894 an earthquake shook the Acropolis and shortly afterwards surveys were conducted to assess the damage to the monuments. Head of the restorations at the time was the civil engineer Nikolaos Balanos who undertook the repair work the workgroup had decided on. The work started in 1898, and in turn the Parthenon, Erechtheion and the Propylaia were worked on, added to with the pieces found in the extensive excavations of the Acropolis and stabilized for structural damage.

Balanos, together with his colleagues on the Acropolis, Panayiotis Kavvadias and Wilhelm Dörpfeld, followed the restoration conventions of the time, and formulated guidelines for their anastylosis of the monuments on the Acropolis. These were inspired by the principles laid down by von Klenze, and concerned the mending of fractured members with clearly different material and the use of new material only where it was necessary for the continued

anastylosis. They did however not actually adhere to their guidelines. Balanos was inspired by the romantic classical movement, and wished to provide a more complete picture of the monuments than was possible following the guidelines laid down. He wanted to restore the lost grandeur of the monuments, and to present them as if they had undergone less devastation. This is especially apparent in his restoration of the Parthenon, where he received permission to rebuild the northern colonnade, which now looks as if it was never destroyed by the explosion in 1687. (Casanaki & Mallouchou-Tufano 1985:19). This specific restoration has not been undone in later work, as it was agreed that it has been assimilated into the monument.

In 1905 the repercussions of the anti-restoration movement reached Greece, and new guidelines were formulated to include these thoughts. Material had to be studied and recorded before being removed, so that it could be replaced in its original place. Balanos however continued as he had before. In 1909, following a military coup, the Archaeological Society was no longer allowed to undertake interventions, and the government-owned Archaeological Service took over. (Mallouchou-Tufano 1998:364).

In 1934 a survey of the condition of the Acropolis monuments showed that the foundations of the temple of Athena Nike and the bastion on which it stood were in danger of collapsing, due to settling in the crepidoma. A rescue operation was needed, and Balanos undertook the task.

In 1935 the temple was dismantled to reach the bastion beneath, which was then also partly dismantled. Balanos removed the classical sheathing that covered the older bastion, and also some of the Mycenaean walls to reach stable bedrock. During the dismantling of the bastion, Balanos discovered the archaic temple of Athena Nike under the current structure, and excavated it, documenting it with photos and drawings before continuing below it. (Balanos 1956:776-807). After reaching bedrock Balanos laid a concrete foundation as a new support for the bastion, and started the rebuilding of both bastion and temple. Upon the concrete foundation Balanos reconstructed the older cult site, encased within concrete walls, and continued the rebuilding of the bastion over it, leaving access to the older sanctuary through the floor of the temple of Athena Nike. He then proceeded with the restoration of the temple. (Balanos 1956).

The temple of Athena Nike was restored up to entablature level when Balanos retired due to failing health in 1939. The work was finished by his successor Anastasios Orlandos, a Greek archaeologist who had been critical to Balanos' massive rebuilding from the start, and had been

his most harsh criticiser. Orlandos had previously done an exhaustive study of the temple and bastion, and during the year in which he completed the building he also corrected many mistakes made by both Balanos and Ross. Among others he corrected mistakes made in the positioning of wall blocks and architraves, and replaced the limestone fills with marble where possible. Orlandos was responsible for re-erecting the columns and entablature of the temple. (Casanaki & Mallouchou-Tufano 1985:19-20, Mallouchou-Tufano 1994b:82). In 1940 the temple of Athena Nike once again stood in its rightful place on the bastion (figs. 8 & 9).

5.4 Third restoration 2000-2010

After the Second World War little was done on the Acropolis for the next 30 years, mainly because of limited resources. But in 1971 a UNESCO report on the state of the Acropolis monuments called for urgent attention to the deterioration of the monuments. A survey by UNESCO showed severe damage to the surface of the marble caused by the rising pollution in Athens, but also cracks in the marble of all blocks with iron clamps, due to the corroding of the iron, and worsened by pollution reacting with the already weakened iron. Already in 1965 these problems had been acknowledged, and the Greek Archaeological Service had attempted to combat them, but they did not have the resources needed, and were hindered by the political situation. The “Regime of the Colonels”, a military junta, governed Greece from 1967 till 1973, and by the end had brought Greece into serious economic difficulties. When the regime ended in 1973 the country slowly picked up again. (Woodhouse 1991:290-294).

In 1975 the CCAM (Committee for the Conservation of the Acropolis Monuments) was founded and given charge of the restoration and conservation work. CCAM consists of specialists and scientists from archaeology, architecture and structural and chemical engineering. (Economakis 1994:9-10, Mallouchou-Tufano 1994a:13-15). The CCAM, who began their operation in a time when heritage management and conservation issues where important in the world of archaeology, adopted the Charter of Venice as their principles, and adhere closely to the norms of the time for objectivity and reversibility of all work.

CCAM’s main goal has been to secure the continued existence of the monuments on the Acropolis, and to this end have dismantled, repaired and restored the monuments to prolong their lifetime. The first monument to be treated was the Erechtheion (1979-1987) followed by the first

of in all 12 different operations planned on the Parthenon. Work on the Propylaia started in 1990. The whole project was at first planned to be finished by 2000, but the state of the monuments turned out to be worse than expected. Discoveries of nearly invisible cracks in the marble blocks lead to the need to dismantle even the newest replacements to the monuments on the Acropolis in order to remove the clamps. (Casanaki & Mallouchou-Tufano 1985:58-60).

The CCAM have been working with the restorations for nearly 35 years, and throughout this time have honed their methods and practices, and are now more than ever experts at restoration. Important discoveries concerning ancient building methods and the history of the monuments have been made, and the work done on the Acropolis at present has become the leading example of how restoration work should be undertaken. The CCAM have made it a practice to conduct a thorough study of the monument and write a proposal of the work needed. They then invite international specialists to meetings where the proposals are discussed, before they are sent on to be approved by the Greek Central Archaeological Council. Five such meetings have been held, in 1977, 1983, 1989, 1994 and 2002, a sixth meeting is planned for 2011, and a seventh at the end of the entire project. (E. Lembidaki, 2010, pers. comm., 19. March, Mallouchou-Tufano 2003:19-22).

In 1999 the Acropolis Restoration Service, (hereafter referred to as the ARS), was established to organize and implement the works of restoration and conservation on the Acropolis, leaving the CCAM to an advisory position. The ARS is a regional service of the Hellenic Ministry of Culture and is directed and supervised by the CCAM. The ARS follows the same procedures and guidelines as the CCAM did, and is joined by all those who previously worked on the Acropolis under the CCAM. Thus the ARS had inherited both the experience of the workers and the approach to the work previously commended when used by the CCAM. (Ioannidou 2003:27-30, 2007:6).

In 1994 the “Study for the Restoration of the Temple of Athena Nike” by the architect Demosthenes Giraud was submitted to and approved by the international meeting. In 1999 the study was approved by the government, and work began in October 2000. A report of the work is planned when the restoration is finished. The goal of the intervention is to completely disassemble and conserve the architectural members, restore the crepidoma and foundations of the temple, and conserve the poros members of the temple discovered in 1936 within the ancient foundations. The monument is then to be fully reconstructed, including the arrangement of its

architectural members and the restoration of its ancient geometry. (Giraud 2003:134-137).

The plan was to have finished the restoration by 2004, but already quite early in the work this proved to be impossible. The damage to the marble turned out to be much greater than estimated, as the damage could not be seen before the building was dismantled. In fact, out of the 319 members of the temple only the columns were without heavy damage. (Michalopoulou 2004:18-20). The problems due to the previous restorations were the serious damage of architectural members, useless incision and metal supports, small pieces cut off the original members, and cement plaster added that proved hard to remove. Another problem concerned the workspace, because of the size of the bastion there was no space for the scaffolding on the west side of the temple, and this was solved by building the scaffolding from bedrock to the west of the bastion itself. (Bouras 2002:12-19).

The dismantling of the temple was finished in 2002, and the rebuilding began in 2004. The years in between were used to conserve the members before the re-erecting, as well as satisfactorily solving the problem of a reinforced concrete slab used to cover the cella floor by Balanos.

When the rebuilding started there arose problems in the positioning of the cella blocks, and a thorough study was undertaken to be sure that all pieces were restored to their original place. The result of this study was a repositioning of 22 of the blocks, and two newly discovered ones were given their correct places. The end result was that the amount of completely new wall blocks to be incorporated on the monument was reduced from 14 to 10. A similar study was conducted in 2007 concerning the placement of the column capitals. (Ioannidou 2008:2-4, Mamaloungas 2005:25-26).

6. Discussion of the methods

In this chapter I will look at the methodical side of the restorations. My main focus will be on the methods that have been used in the different parts of the restoration, and how the methods have been used and received. I will look at the background for using the particular methods based on the existing rules for restoration work at the time, and the links to the general evolution of the archaeological discipline.

I will concentrate on the principal methods used in the restorations, but in some cases where there are specific methods used that have had a great impact on the monument, I will take these into consideration. I will look at the study of the material, the usage of material, and the question of reconstruction versus restoration before summing up the work and looking at whether the work has been received as a successful restoration or not, and what the criticisms of the work have been.

6.1 Methods used in the interventions

6.1.1 Study of the material and documentation of the work

The importance of studying the original material before attempting a reconstruction has been an important issue in archaeological restoration since the late 1800's. It is implied in the Charter of Athens, and explicitly recommended or even imposed in the Charter of Venice. It has been especially important since the idea of reversibility has received an important place in all archaeological interventions.

Due to the building method used in the construction of the ancient Greek temples the exact position of each piece of architecture is possible to deduce from the shape of and marks on the block. As the temple of Athena Nike has been built with the refinement otherwise known from the Periklean architecture, each block will have been custom-made and it is therefore possible to find its exact position on the monument.

Equally important to the study of the material before an intervention is the documentation of the work during the process and the publishing of the results. This is to ensure that the knowledge achieved from the study and the work done is passed on for future projects or studies.

Ross and Pittakis

The main criticism against the first anastylosis of the temple of Athena Nike is Ross' failure to study the material thoroughly (or even at all) before the intervention was undertaken. (Casanaki & Mallouchou-Tufano 1985:19, Giraud 1994). This has resulted in a lot of material being put in incorrect places on the monument, as well as usage of material that in fact did not even belong to the temple of Athena Nike, but rather to the Propylaia or other neighboring monuments. This could to some degree have been avoided by a study of the material before the anastylosis.

The same is true of the completions by Pittakis. Pittakis' main contribution to the anastylosis of the temple of Athena Nike was the placement of the epistyle, as he tried to re-establish the original height of the building. In this work the pieces were to a large degree placed in the right layer of the building, but in the wrong places. The mistakes are however fewer, as Pittakis worked on a smaller part of the building.

As for documentation, Ross published his findings during his work in 1835-37 in the periodical *Kunstblatt* where he had a running column under the heading "*Bericht von den Arbeiten auf der Akropolis in Athen*". This column is written for the general public, but gives us a good idea of Ross' discoveries and interpretations. (Ross 1837). In 1839 the results of the first anastylosis of the temple of Athena Nike were published in the report "*Die Akropolis von Athen nach den neuesten Ausgrabungen. Der Tempel der Nike Apteros*" by Ross, Schaubert and Hansen. The publication by today's standards is not very academic, and describes very little of the methods and work, but is completed with very accurate and informative drawings of the work by C. Hansen (Ross et al. 1839).

Pittakis did not publish his work.

Balanos and Orlandos

In 1915 Orlandos published a study of the temple "*Zum Tempel der Athena Nike*" in which he pointed out mistakes made in the placement of the material in the intervention by Ross and Pittakis. It is however clear from the archaeological evidence that Balanos had not taken the same precaution of studying the material beforehand.

In the second anastylosis of the temple and bastion a lot of the material was again wrongly placed, and material belonging to other monuments was placed upon the temple as original pieces. Parts of the misplacements were, we have cause to believe, performed

intentionally due to Balanos' preference of marble for his completions which to him was more important than where the material came from. In addition the crepidoma was restored with an intentional slope, caused by the damage to the bastion throughout time. (Giraud 1994). A more thorough study would have prevented this.

The completion of the upper parts of the temple by Orlandos shows a better understanding of the material, but there are still some mistakes, perhaps due to the haste in which the last parts of the restoration was done, because of the oncoming war. Orlandos also took the opportunity to replace blocks that he had identified to have been mislaid by Balanos, but this was only possible in the upper courses of the temple where he was working.

In 1956 a report of the restoration by Balanos was published in the 1937 volume of the periodical Archaiologike Ephemeris (which had been delayed due to the war) under the title "*Η νέα αναστήλωσις του ναού της Αθηνάς Νίκης (1935-1939)*". This report was completed in 1940, a year after Balanos' retirement, but is quite summary and lacks discussion. It does however give an idea of the work laid down.

The report by Orlandos was published in Bulletin de Correspondance Hellenique 1947-48 under the title "*Nouvelles observations sur la construction du temple d'Athèna Nikè*". The publication details the building and measurements rather than the actual work done during the restoration, but shows clearly that Orlandos had studied the temple to a great degree.

The Acropolis Restoration Service

In the current intervention by the ARS, there is a lot of work done to identify the correct position of each member of the temple. The principles which are laid down for the work only allow for anastylosis where there is sufficient evidence of the original position of the blocks. To this end there have been exhaustive studies of the material, in which the refinements, damage and evidence of placement of clamps have been used to identify the exact position of each member before it is replaced on the temple. The ARS has also decided that parts of the temple not previously dismantled in any of the interventions should remain *in situ* to increase the authentic value of the temple.

The documentation work carried out during the third anastylosis is extensive, and each step of the work is photographed, drawn and described. The work on all the Acropolis

monuments is filed in a large database created for that specific purpose and which will be opened to the scholarly community once this round of restorations is completed.

During the 10 years the interventions have lasted there have been updates on the progress published in the workgroup's own annual journal, *The Acropolis Restoration News*, as well as in newspapers and magazines around the world; however, these articles are written for the general public and are therefore not very technical or specific. The final publication of the work is expected to be released in 2011, and be discussed at the sixth symposium of the Acropolis monuments the same year. (E. Lembidaki, 2010. pers. comm. 19. March).

6.1.2 Material usage

The question of material usage is a much debated one. Which materials should be used for completions, to which degree should they or should they not resemble the original material? The idea that all new additions should be easily recognizable as such is found in the principles suggested by von Klenze (1830), Boito (1881), the Charter of Athens (1931) and the Venice Charter (1964). This idea is in other words well known for all the restorers working on the temple of Athena Nike and the Acropolis in general.

Ross and Pittakis

In the work done by Ross it is clear that he has followed the principles suggested by von Klenze, and thereby also close up to the standards for restoration work that we expect today. In his own record of the work, he states that three missing column drums and one base were remade in pentelic marble, missing or ruined blocks from the cella wall were replaced with poros limestone, and otherwise the original blocks and fragments were used where possible.

The new additions in pentelic marble were simplified to stand out from the original material, the column drums were left unfluted, and the decoration and profile of the base was simplified. The use of a different material entirely for the cella blocks was considered as sufficient to distinguish them from the originals. (Mallouchou-Tufano 1998:361).

There is however a question as to whether or not this exemplary following of the rules was intended. We know from other sources that there was a great lack of good marble cutters in this period, and perhaps, if Ross had access to them, he might have felt tempted to copy the

originals. This is however just speculation, and for posterity we are satisfied with the way things turned out, whatever the motive.

The completion of the work by Pittakis was already greatly criticized in his own time, and this was mostly due to his use of materials. Pittakis did, like Ross, use poros stone to supplement missing blocks, and the column and capital he re-erected were like Ross' in pentelic marble without flutes and simplified. But Pittakis also used a lot of other materials, especially for refilling gaps. At first rubble and marble fragments were used, and later on bricks became his favoured material for consolidating the ancient architecture. He also used bricks for filling in gaps were blocks were missing, and to restore the original width of walls. His use of these materials has been explained as a consequence of practical limitations, and lack of good marble workers. (Mallouchou-Tufano 1998:362).

However, in Pittakis' work we also find in some way an anticipation of modern practice when it comes to usage of material. Pittakis retained a respect for the ancient material to a great degree by joining the old fragments where he could, rather than creating new. He also provided a lot of his rebuilt sections with inscriptions dating his work.

Balanos and Orlandos

The anastylosis done by Balanos in 1935-40 took place while the purist approach to the material was the leading theory, and we can see this in Balanos' work. He went to great efforts to remove all the poros stone from the temple and replace it with marble. Where he could, Balanos used ancient building material, often from the piles of rubble that lay about the Acropolis, regardless of where it originally came from. For him the aesthetic quality of the material was more important than its origin. Balanos went so far as to create new whole blocks for the anastylosis by joining blocks that didn't necessarily fit together, and even ruined the original blocks in the process. He leveled off ancient and newer breaks to create new contact surfaces, thereby making it nearly impossible to later identify a possible match between newly found blocks. Where there was need for new material, the additions to the temple done under Balanos were to be as similar to the original as possible. Even the ancient forms were reproduced, and artificial patina or tooling of the new surfaces was used to make the new additions look like the ancient blocks.

Balanos used meyer-glue, cement or mortar to repair fractures, glue in fragments and fill gaps during his restoration. This left the pieces looking more uniform, but has later created great difficulties for the current restorers who have had to carefully remove this.

To create a secure base for the rebuilding of the bastion, Balanos laid a concrete foundation, upon which the older cult site from archaic times was reconstructed. This was also encased in concrete. The use of reinforced concrete as building material was in 1931 approved in the Charter of Athens, but today it is not considered a viable option, as it is not easily reversible. In addition, poros stone was used for reconstruction of the archaic cella, and these blocks have later been identified as originating from another monument, most likely the Propylaia. In general the restoration of the bastion floor and earlier cult by Balanos have caused some problems as to what is old and what is new material. The state of the archaic cult site after Balanos seems very incongruous, and it is hard to imagine how the original would have looked before the new additions were made.

To support the roof of the archaic cult site (which is the floor of the current temple), Balanos installed large iron beams as support, and the roof section was made of reinforced concrete. This option has later proven inadequate to secure the basement, as the roof was not entirely waterproof, and the supporting beams have corroded heavily over the years.

The most serious criticism against Balanos in modern times is his use of iron clamps and beams in his work. A civil engineer by training, he seems to have been very concerned about the structural integrity of the building, and to a great degree used iron components to fasten, consolidate and reinforce the ancient blocks. This practice has been known from ancient times, when iron clamps and dowels were placed in specially cut grooves in the blocks at points necessary to ensure stability. These clamps were then rust-proofed by a lead sheathing poured into a space left around the clamp for this purpose. The thick lead sheathing also contributes to the stability of the building by absorbing the strain of any changes in the iron's elasticity. (Casanaki & Mallouchou-Tufano 1985:58-60).

Balanos tried to recreate this practice, but he exaggerated his use of clamps, embedding them in basically all parts of the building, using stronger reinforcements than were needed for the task, as well as inserting large iron beams into the ancient marble for structural purposes, thereby ruining a lot of the ancient material. Balanos' clamps and beams were only haphazardly covered

with lead or cement mortar. While the original clamps were placed on a visible surface of the block, Balanos hid his clamps inside the walls of the building, again for aesthetic reasons. The result of this was that not only was the corrosion not noticed before it had done a lot of damage, but to see the full extent of the damage, whole sections of the monuments needed to be dismantled. The climate of Athens, with rain and sea-air seeping in, quickly caused the iron to rust and swell, thereby producing stress that cracked the marble, in some cases so badly that pieces fell off. This damage was first noticed in the 1950's, and was soon after worsened by the new problem of pollution reacting with the already rusted iron.

The work by Orlandos shows that he too belonged to the purist school when it came to the completions of the missing pieces of the temple. But as he did less work on the temple, it is less evident. However, the new completions made by Orlandos are to a great degree made to look like the originals, this is especially true of the new capital made of pentelic marble, on which he has recreated the ancient shapes and grooves perfectly.

The Acropolis Restoration Service

The current anastylosis of the temple of Athena Nike by the ARS is to a great degree based on their previous experience in the restorations of the other monuments of the Acropolis as well as their following of the Venice Charter.

The ARS' use of material is based on their restoration objectives for the temple, the structural stability and restoration of authenticity. To this end they use pentelic marble for all additions, except for members of the frieze. White Portland cement mixed with quartz sand is used to mend fractured members. The iron clamps from the second restoration have been removed, and are being substituted by clamps in titanium alloy. The decision to use titanium has been taken after extensive testing, but the architect in charge of the restoration, Giraud, has earlier confessed to being sceptical to the use of titanium, and would prefer the use of stainless steel instead. Stainless steel can be encased in lead like the original clamps, which will then absorb the seismic stresses the monument might suffer, while titanium corrodes in contact with lead. (Gizzi 2003:129-133). However, the decision to use titanium prevails, and the clamps are made so that should the seismic activity cause a too large stress on the monument the clamp will

break before the marble cracks. Blind riveting in the titanium is used to fix fractured members together, and a punch is used for working negative surfaces.

It has been proved that the distinguishing whiteness of the new marble relatively quickly assumes the same shades as the old, as can be seen on the Erechtheion, whose restoration was finished in 1987. To prevent misunderstandings as to which material is original and not, inscriptions have been put on the new material, dating the intervention, and where possible the blocks are laid with the marble grains running differently to the original blocks.

6.1.3 Reconstruction vs restoration

The question of reconstruction as opposed to restoration is problematic and controversial. Where does the line between reconstruction and restoration go? I have earlier shown that anastylosis is accepted as a measure of conservation, but must be considered a restorative measure. Since anastylosis is a borderline action in itself, anything that goes beyond the boundaries of anastylosis must be considered a reconstruction. All these three interventions have been carried out supposedly under the concept of anastylosis, but have they followed the rules laid down for anastylosis? Anastylosis is defined as the reassembling of existing but dismembered parts. In this part I will look at the degree of rebuilding that was done during the anastylosis.

Ross and Pittakis

As we have seen in earlier parts of this thesis, Ross held himself to the original material and original foundation for the anastylosis of the temple.

During the work the temple was given the shape it had before it was demolished by the Turks in 1687, rather than the classical shape from 400 BC. This is mostly due to the restorers' decision not to restore the crepidoma of the temple which had lost its horizontality over the course of the years, and also because of the temple foundation's conversion to a powder chamber.

The decision not to restore the crepidoma caused some problems later in the anastylosis, as the loss of horizontality made it difficult to correctly place the layers of blocks on the cella and upper parts of the structure. It has been questioned whether the decision not to restore the crepidoma was out of consideration for the temple's authenticity, the crepidoma being the only part of the temple to still be *in situ* since classical times. (Giraud 1994:76).

Both Ross and Pittakis had new members made for the temple, in Ross' case 3 drums and a base, and Pittakis had parts of a column made. These components were however considered as absolutely necessary for the further anastylosis of the remaining original members and therefore this decision is easy to accept.

Pittakis' completion of the intervention follows Ross' example ideally, and even his use of unusual material for parts of the completions does not prevent this intervention to be easily accepted as a restoration rather than a reconstruction. The degree of rebuilding does not go beyond what would be acceptable for an anastylosis (figs 6 & 7).

Balanos and Orlandos

When Balanos began his anastylosis in 1936 he dismantled not only the temple, but also the foundation and bastion on which it had stood. In the process the last remaining part of the temple *in situ* from the time of its building was to be dismantled, but Balanos left a block of the crepidoma in place to make sure that his anastylosis of the foundation was correct.

In the re-erection of the temple both Balanos and his successor Orlandos show a great tendency to rebuild more than the material allows. In Balanos' case this is most clearly shown in his reshaping of the building blocks to a more complete state, and his filling in of damaged and missing fragments on the members with cement. This same tendency is seen in the completion of the upper parts of the temple by Orlandos, where even the capital remade by Pittakis was replaced by a more complete version, and flutes were made in the column drums which had been left unfluted by the first restorers.

During the work most attention was paid to the anastylosis of the north and east sides of the temple, where the horizontal cornice was put in place and the most complete blocks were placed. These sides of the temple were the most visible to the visitors to the Acropolis, and by using the least damaged material here, the general impression of the temple would be that of a more complete building. (Giraud 1994:129-130).

In general, the second anastylosis of the temple of Athena Nike changed the character of the monument and after the anastylosis it appeared as a much more complete building (figs 8 & 9). This is partially due to the discovery in the intervening years of missing parts that were reinserted into the building, but mostly to the work done by the restorers to cover the damage to the temple and restore its former grandeur. It seems that this work was done intentionally, and

Orlandos even used the term αναπαλαίωσις (anapalaeosis) “to return to an older state” rather than anastylosis to categorise his work. The same tendency is true for the work done by Balanos.

The work done to show the temple as more complete than the material can allow puts this intervention clearly in the field of reconstruction rather than restoration.

The Acropolis Restoration Service

The third anastylosis of the temple of Athena Nike by the ARS is described as an intervention for structural and authenticity purposes. To this end all the misplaced and newly identified pieces are to be put in their correct positions on the monument to strengthen its authenticity and all completions will be made of pentelic marble to secure its structural sufficiency. But this has also caused the third anastylosis to be described by others as a katastylosis rather than an anastylosis, in which the temple is being deconstructed to the state it was in before the work done by Balanos and Orlandos. (Gruben 2002:282). Somehow it seems that the ARS are trying to distance themselves as far as possible from the restoration of the 1930’s.

In the re-erection of the temple the ARS have done a thorough job based on the goals they have set themselves. In the terms of anastylosis they have followed the restrictions to the letter, and in some cases this seems like too much. My main concern with the current restoration is based on their proposed anastylosis of the slanting cornice and sima where pieces belonging to the top of the temple have been identified. To replace these rather small pieces in their original places, as laid down in the Charters, work is being done to reconstruct large parts of the pediment in new marble in order to support them (see fig. 10). In this way the ratio of new marble to old is very high on the upper parts of the temple, which is another concern laid down in the Venice Charter, article 6, where it is stated: *“No new construction, demolition or modification which would alter the relations of mass and colour must be allowed”*. In this however, the ARS seem to have laid most emphasis on the replacement of the original pieces.

It is difficult to say as yet what the final verdict on this third anastylosis should be, as there is still work to be done (fig. 11). But so far, this intervention is clearly within the limits set by the charters for anastylosis, and it is doubtful that they will change course with so little remaining to be done.

6.2 The background for the methods

Judging by the results seen in the first part of the chapter I will now look at some questions that concern all three restorations together. Firstly, does there seem to be a learning curve between the three interventions? Have they learnt from each other's mistakes? Where does their inspiration come from? Secondly I will look at to what degree the evolution of archaeology and more specifically restoration work as disciplines have influenced the work and the way the work has been done from this perspective.

6.2.1 Learning curve between the three interventions

Being the pioneer of the practice of anastylosis in Greece, Ross cannot have taken his inspiration from similar works there, but he does seem to execute his work much like Valadier, who did groundbreaking work in the field of monument conservation on the Arch of Titus. It is very likely that this is where he turned to find his inspiration. Pittakis seems to have adopted Ross' methods, and walked in his footsteps.

100 years later Balanos started the second anastylosis of the temple, and here he was naturally inspired by the work Ross had done. However, Balanos' main source of inspiration and what influenced his work most is probably his own restoration work on the Acropolis prior to the anastylosis of Athena Nike, where he had worked on the restoration of all the other monuments. His tendency to reconstruct rather than restore is especially apparent in his work on the Parthenon where the northern colonnade was reconstructed as if it had never been damaged in the explosion of 1687. Also the Erechtheion was returned to a more complete state by Balanos. His excessive use of iron clamps is also apparent in all these restorations, but the full extent of the damage caused by these was not apparent before the 1950's, otherwise the later monuments might have been spared this plight.

Orlandos, being a harsh criticiser of Balanos' work, took his inspiration from the work done in Rome at the time. But although his main criticism of Balanos' work had been the excessive reconstruction, he also followed much the same path.

60 years later the ARS started what was to be the third complete anastylosis of the temple. In the work of the ARS it is evident that they at least have studied their predecessors, so as to not make the same mistakes. The inspiration and knowledge behind the current restoration

of the temple comes from all the restoration work done over the last two centuries, as it is all accessible for survey and evaluation. The intervention of the temple of Athena Nike is the last monument of the four on the Acropolis to be started, apart from the remaining programmes for the Parthenon, and it is very clear when reading reports of the symposia that the knowledge that the team acquires during their work is passed on to the next monument. Whether another order for the restorations would have been more advantageous can be questioned, but I think the reason for leaving the temple of Athena Nike until the after the Erechtheion and Propylaia is due to its small size, and the relatively short passage of time since its last intervention.

6.2.2 Influenced by the evolution of the discipline

In 1835 when the first anastylosis of the temple of Athena Nike was begun, archaeology as a discipline had only just started to emerge. The first work of monument restoration had been undertaken, but the methods were still under development. This is very clear in the work of Ross and Pittakis, where they pioneered the first anastylosis. With no guidelines as to how to proceed they had to make up their own, which explains their lack of study of the material beforehand and the consequent mistakes in positioning this caused. Their close adherence to the proposals by von Klenze suggests that they were grateful for the advice of a well-renowned name in the field of archaeology.

By 1936 the archaeological discipline had become a lot more scientific and the first rules for restoration work had been laid down with the Charter of Athens (1931). Balanos' and Orlandos' work on the temple of Athena Nike started respectively 5 and 10 years after the Charter of Athens, but neither seems to have taken any heed of the new principles for anastylosis. This could be due to two facts, one being that perhaps the time had been too short for them to change their practice, or that the Charter in its first years of existence was not as widely followed as we might believe today; the other possibility is that as seasoned archaeologists who had been working with restoration work for many years before the Charter, they found their own methods more comfortable, practical and appropriate. We might never know their own reasons for disregarding the Charter of Athens, as they never published their views on it, but we do know

that Balanos at least knew about the charter at the time of its signing as he participated in the congress that led to its creation.

The theme that suffuses both Balanos' and Orlandos' work is their connection to the neo-classical and purist school of thought that swept Europe at this time. The idea of the classical Greece as the ideal is clearly shown in their restoration of the temple of Athena Nike, where they went to great lengths to make the new material similar to the original so as not to disturb the visual impression of the temple.

By the year 2000 when the third anastylosis of the temple of Athena Nike was started the archaeological discipline had grown to the extent we know it today. A fitting term for archaeology today might be critical archaeology, where every move is monitored and analysed by national and international critics alike. With the evolution of the discipline toward a more objective archaeology we see collaboration between different sciences and schools of thought in order to find the best solution possible for the problem. In the case of the restorations on the Acropolis this is very evident in the international meetings held prior to and after the work, to discuss and evaluate the work done.

Another factor that plays a great part in the current restoration is globalisation that not only makes the monuments on the Acropolis part of a larger world heritage, but also makes the discoveries and work known to the whole world almost immediately.

At this point in time the work done on the Acropolis by the ARS no longer follows the approaches made by others in the field of monument restoration, but instead heads the field in their use of methods and material. The experience they have earned through the restorations has given them the authority needed to become the experts.

7. Socio-political problems and questions

While the methodical questions that we have looked at in the previous chapter have been discussed by scientists around the world in connection with all three interventions, it is the latest intervention that has sparked a new debate not only for scientists, but of interest to everyone.

The globalisation and expansion of media has made the ideas and results of this third restoration open to the public nearly immediately. It is on this debate that this chapter will focus, not the technical and methodical aspects of the restoration where it is virtually impossible for laymen to participate, but the socio-political aspects that concern everyone, and where anyone can have an opinion. The debates have raged in the media, on the internet, and also in more actual forums such as conferences concerning restoration and conservation. I will here concern myself mostly with the more academic sides of the debate, but also try to show the opinions of the general public.

The main topics in this discussion concern important issues such as the question of value, intelligibility, removal of sculpture, authenticity and of course the future of the Acropolis monuments.

7.1 Value

> *"In the field of cultural heritage conservation, values are critical to deciding what to conserve - what material goods will represent us and our past to future generations – as well as to determining how to conserve."* (Avrami et al. 2000:1)

The value which we as human beings put upon a monument or object, is the sole reason to conserve it for the future, we impress everything around us with values subconsciously all the time. Therefore it is an interesting subject to study consciously. To understand the values is also very important for the understanding of the work done in cultural heritage conservation: when we know on which values the work was based, we will understand why the measures were chosen.

Value and the question of evaluating is a very subjective matter, individuals with different backgrounds and interests will see different values in the same object. I will, for this

discussion, try to look at the values which the restorers themselves have imbued the temple of Athena Nike with, and try and see how that has laid the foundation for the measures of conservation they have decided upon.

As we have seen earlier the three restorations follow different guidelines, which again emphasize different values or views of values, according to the current trends of their time. But in addition to these guidelines, the restorers themselves have come from different backgrounds, and have different interests, which may cause their evaluation of the monument to differ from the values emphasized in the guidelines.

I will start with the building of the temple in the 5th century BC, and which values seem the most important. The value that first springs to mind that can be attributed to the temple is perhaps its spiritual value, or use value, since it was used for spiritual purposes. But also other aspects must be taken into consideration, especially the aesthetic and symbolic value of the temple. It is in these two values I think that we find the highest praised values of the time. I am in agreement with the other scholars who claim that the value most highly treasured by the builders of the classical temples, in their own time, was the aesthetic value (Bouras 2007:2). There is little doubt that the classical temples were built to look stunning, which is emphasized by the use of refinements in the building, and the coloured sculptural decorations that adorned the temple in the ancient times. As such the temples were the main decoration in the sanctuary, and not the most important object of use; this would have been the altar, which was built outside the temple, and where the rituals were held. The temple itself was the house of the god to whom it was dedicated, not of the people. While the altar embodies the use and ritual value, the value of the temple seems to be an aesthetic and visual one. But in the case of the temple of Athena Nike, and to some degree also the other temples on the Acropolis, the symbolic value is great as well. The temple was built as a monument of victory, and dedicated to Athenian Victory (Athena Nike). It is also built outside the gateway to the Acropolis, somehow extending victory into the city, closely paralleling the cult statue of Athena Parthenos who holds a small Nike in her outstretched hand. Therefore, I will say that the main values of this time are the symbolic and visual values.

The values emphasized in the first restoration in 1836 are harder to define. The principles laid down by von Klenze seem to favour both a historical value, but in a very limited sense since the historical period to be valued was the classical, and not the whole scope of history; and an aesthetic value, with the romantic ruin as the ideal.

Von Klenze recommended the rebuilding of the monuments, to display them as artistic creations free from the later functional additions. In this sense it is difficult to attribute a historical value to the monuments, as they are stripped of all the history from the classical time onwards. One might however be able to attribute an age-value to the monuments, in which it is their age and existence through time that is important. The temple of Athena Nike, however, at this point varies from the other monuments on the Acropolis due to its dismantled state. In the case of Athena Nike it is hard to speak of historical documentary value when the temple has been dismantled, thereby removing most traces of the methods used in the building. I would instead attribute a different value to the temple, namely a symbolic value in addition to a political value. The symbolism of the temple of Athena Nike being rebuilt in its ancient form is too similar to the idea of the re-creation of the greatness of the Greek state to be overlooked. In addition the monument once again symbolises Greek victory, this time over the Ottoman Empire. There can also be said to be a new historical value to the monument, in the sense that it was reinstalled to complete the ancient Acropolis. In this first rebuilding I find it hard to see even traces of an aesthetic value, so while the symbolic value still remains, although in a somewhat different shape, there is a shift from a visual to a historical secondary value.

By the time of the second restoration in 1935-40, the Charter of Athens had been written, and there were guidelines in place to secure the correctness of interventions. As I have pointed out earlier, the Charter of Athens puts most weight on the historical and documentary value of the monuments. However, the work done during the second intervention shows signs of being done by people who supported an aesthetic value rather than a historical. This is especially true for Orlandos, while Balanos to some degree respected the other time-periods in his work on the Acropolis. On the temple of Athena Nike it is clearly an aesthetic value that is prominent. This is shown in the use of ancient pieces rather than new marble to complete the missing members, as shown by Balanos, and the unsupported rebuilding of some parts. For the restorers in the 1930's

the goal was a building more complete and intelligible than the available material could allow or support.

The third and current restoration is probably the hardest to evaluate. In the charter of Venice, the visual value, or the monument as art is again important, in addition to the historical value. The restorers themselves emphasized the temple's return to authenticity and structural sufficiency. Both these ideas seem to be rooted in the historical value attributed to a monument; the return to a state as close to its original as possible, along with giving it the stability to stand for future generations, will strengthen the historical value of the temple. In this restoration, much work is being done to re-create the historical value of the monument, and thereby its authenticity. The original material is reincorporated into the monument as far as possible, and misplacements or unauthentic pieces are removed. Although the Venice Charter favours a visual value, the restorers have emphasized the historical value of the monument.

7.2 The removal of sculpture and use of copies

In 1998, after an exhaustive study of the conditions of the monument, and a great international debate, the frieze of the temple of Athena Nike was taken down, and transported to the Acropolis museum for safekeeping and exhibition. This had been done with the sculptured decoration of the other monuments of the Acropolis previously, and is one of the most controversial decisions taken by the CCAM and ARS. The reason for this debate is closely related to both value and intelligibility questions. The main questions seem to be these: Should the frieze be deemed more valuable than the temple itself, and will the visitor fully appreciate the temple without its original decorations?

I will here try to address the debate thematically, from the question of removal to the question of replicas.

The question of the sculpture of the temple of Athena Nike appears in the debate in 1989 during the 3rd International meeting for the Restoration of the Acropolis Monuments. A questionnaire was distributed to the participants where the question of the dismantling of the temple of Athena Nike was addressed. The general response was positive to the proposal, and a lot of people also

urged for the removal of the sculptures, and questioned why this had not happened before as with the other monuments.

The Venice Charter, article 8, states: *"Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation."*

The pollution in the Athenian atmosphere had caused extensive damage to the sculpture, whereby the details of the ancient handiwork were eroded and disfigured by the sulphur oxide in the acid rain. Attempts were made to create a coating that would protect the marble from being affected by the sulphur oxide, but an adequate solution that does not otherwise damage or miscolour the marble has not been found. (Schmidt 1993:187-197).

Therefore in the case of the sculptural decorations on the Acropolis, the removal of the sculpture to a regulated atmosphere inside a museum is considered absolutely necessary to ensure its preservation.

After the need for the removal of the sculpture was established another debate arose concerning the values of the sculptures and the monuments as works of art. The Acropolis monuments with their refinements and architectural details are considered by many to have the same artistic value as the sculptures which they bore. Is it feasible to remove the sculptures, but leave the building to its own fate?

Though the question asked is valid and indeed food for thought, the practical limitations answer it simply. It would be virtually impossible to move the monuments to a location with a regulated atmosphere, and that would again create a whole new discussion about context, values and intelligibility.

The removal of the sculpture also brings up the debate of context. The overall value and intelligibility of the sculpture will be far less when not in its correct context on the monument, but the same is true for the monuments, whose sculpture completed the visual appearance and symbolic value of the monument. In this case the need to preserve the sculptures has outweighed the contextual concern, and while the sculptures are exhibited out of context in museums, their artistic value still makes them important.

To replace the original sculptural decoration on the Acropolis monuments, and to as far as possible preserve the original character of the monuments, replicas have been made of the sculptures and put up on the monuments. This process has not however been easy and there have been many discussions concerning different aspects of the replicas.

In 1994 during the 4th International Meeting for the Restorations of the Acropolis Monuments a debate was held about the casts. The question was raised whether casts should be put up on the monuments at all. Should not the removal of the sculpture be considered a part of the building's history? We wouldn't want to create a "hybrid monument without soul". (4th IMRAM 1994:223). This question favouring the historical value of the monuments is very interesting and important, and shows a view which maybe one wouldn't have thought existed. However, the restorers have decided, and I agree with their view, that the artistic value and the context of the monuments would suffer too much from the lack of sculpture and therefore casts will be put up.

At the fourth international meeting the material and style of the casts was also debated. Should the casts be made of marble, or a more durable material? Should the casts be identical copies of the current state of the frieze, or should one complete the missing pieces, thus making them more whole and intelligible?

Marble as material for the replicas was ruled out, as it would suffer the same fate as the originals. Plaster copies of the sculptures in the British Museum, had been given to the Acropolis, but both the material and colour were too different from the original and only served to draw attention to the wrong area. In the end a solution was found in artificial stone which is similar to the marble in graining and texture, and whose colour can be adjusted to better suit the monument on which they were to be placed. This material serves the double purpose of being different enough to the marble as to not be mistaken for the original, but still similar enough that it doesn't detract from the visual aesthetics of the temple.

For the sake of authenticity the casts created in artificial stone have been made as exact copies of the sculpture as it looks today. Though it is technically possible to recreate the ancient sculpture to some degree, there would always be some guess-work involved as to what the parts looked like originally, and the scientific correctness of the monuments would be compromised. I will look more closely at these two problems in conjunction with the whole monument now.

7.3 Intelligibility or scientific correctness?

The question of intelligibility as opposed to scientific correctness is closely related to the other questions I have touched upon here, especially perhaps the question of restoration and reconstruction. The debate is of a more recent date, and concerns the public's view and understanding of the Acropolis. The question of intelligibility and of the spectator is a relatively new topic of consideration in archaeology. It is unlikely that the people behind the first two interventions considered how the public would see the restoration. But with the post-processual archaeology, and its appeal to the general public, one of the important problems has become whether the public will understand what they are looking at.

Into this question the problems around the use of material and the extent of the anastylosis play large parts. It is important that the public see which parts of the monuments are original, and which are rebuilt. It is equally important that the public understand the monument, and to some degree can "reconstruct" the monument in their own minds, to gain a full understanding of it.

One of the main problems here has been handed down to the current restorers from the 19th century, when the work of the first archaeologists left the Acropolis devoid of all evidence from the historic periods after the classical time. It is vitally important for the understanding of the Acropolis in the context of Athens that one is aware that the current appearance of the sacred rock is a modern phenomenon.

While the Venice Charter specifically states that rebuilding in any way is not allowed, it would undoubtedly heighten the intelligibility of the monuments, but then to the detriment of their scientific correctness. The question that has arisen in this debate is how close to the fine line between intelligibility and scientific correctness one should tread.

It seems that the CCAM and ARS have wavered slightly on this line. While on the one hand they try very hard to remain faithful to the Venice Charter, there are examples of restorative measures that go beyond what I would read into the Charter. These are especially in the upper layers of the monuments, where the use of new marble is much more pronounced, especially on the architrave of the Parthenon, the pediment of the Propylaia and now also the cornice of the

temple of Athena Nike. The new marble is specifically used to demonstrate to the onlooker the further shape of the monuments, so that it is easier for them to imagine the missing pieces.

This tendency to slightly overdo some of the rebuilding work has been noticed by the scholarly community, and has been commented on at the international meetings and elsewhere.

Richard McNeal claims that what has been done is reconstruction, not restoration. He says that the monuments today are not faithful to any past historical condition, but are "time-warped" from the Periklean times to our modern age, and thus their continuity is broken. This is due to the re-erecting of columns, and patching of sculpture. (McNeal 1991).

David Watkin claims that the current restoration of the Erechtheion (and this also applies to the other monuments) is unsuccessful in that it shows the building as "neither a comprehensible building, nor a romantic ruin". (Watkin 1994:210) It does therefore not assist our understanding of the past. Watkin suggests a complete reconstruction of the monuments, but claims that that will never happen because we are afraid to face the reality of Ancient Greece. *"Thus they* [the monuments] *are doubtlessly doomed to remain as desiccated archaeological objects, unattractively preserved in whatever state of partially suspended decay the Athenian smog allows"*. (Watkin 1994:211).

Demetri Porphyrios on the other hand approves of the current restorations, and especially the fact that the monuments are restored to a state slightly more complete than the reality was. He claims that only through restoring can one reach true culture. (Porphyrios 1994:207-209).

My own thoughts on this topic are mixed. While I dislike the fact that the restoration work goes beyond the limits that the restorers claim to keep themselves within, I do think that the restoration in itself is for the benefit of all mankind, and that one here has to look at the objectives for the restoration to decide whether it is correct or not. This over-restoring on the temple of Athena Nike does go against the ARS' own statement that the restoration is primarily for structural and authenticity purposes. The pieces being rebuilt are not original, and will not contribute toward the structural integrity of the monuments. They do however help people to understand the original shape and size of the monuments, thereby increasing their understanding of the restorations. I will be so bold as to claim that the current restoration is not undertaken for scientific reasons, as we do not expect to gain new groundbreaking knowledge from this

restoration (although this happened with the current studies of the Parthenon), but rather for nostalgic or symbolic reasons to ensure the further survival of symbols that have gained a prominent position in our culture. It is therefore prudent to make the monuments intelligible to the general public as far as this can be done without compromising the scientific value of the monuments.

7.4 Authenticity

The debate about the authenticity of the monument due to its many interventions is a heated one, and also perhaps the most difficult one to answer objectively. I will however try to relate the debate, as well as give an answer based on the criteria for authenticity used in archaeology in general.

In 1983 authenticity was on the agenda at the 2nd International Meeting. The questions put forth were whether authenticity could be reached at all, or whether every intervention would destroy the authenticity of the monuments. (2nd IMRAM 1985, Muss & Schubert 1988:227). The answer to these questions is very important in terms of restoration. There would not be much point in the exhaustive restorations of the monuments if they were not considered authentic, but then again, it is the extensive restoration work done to the monuments that puts their authenticity to the question.

Due to the many total dismantlings and subsequent rebuildings of the temple of Athena Nike, the temple's authenticity has been questioned many times. Has the temple retained its authenticity in any way? I think the answer to this question depends wholly on the view one takes on authenticity, and what one personally considers to be the criteria for being called authentic.

Authenticity is usually defined as the quality of being genuine or not corrupted from the original. (Jokilehto 2002:296). In the opening to the Venice Charter, it is stated that it is our duty to hand the monuments on to future generations "…in the full richness of their authenticity". (Venice Charter 1964), but the charter leaves the definition of authenticity to be discussed in each specific case.

The need for a common ground for discussion concerning the authenticity of cultural heritage was addressed at the Nara Conference on Authenticity in Relation to the World Heritage Convention in Nara, Japan in 1994 and the Nara Document on Authenticity was drafted and accepted. The document addresses issues such as the need for a common standard in the work with World Heritage, and defines authenticity as determining the values of the heritage through the study of the sources of knowledge about the heritage. *"Authenticity, considered in this way and affirmed in the Charter of Venice, appears as the essential qualifying factor concerning values."* (Nara Document 1994: art.10).

Thus the relation between values and authenticity is established, and these two influence each other. If one considers the authenticity to lie in the historical aspects of the monument, one will naturally give the historical value the most weight.

The current restoration by the ARS is as a restoration for structural and *authentic* purposes; in which one of the main goals is to restore the ancient material to its rightful place on the monument. It is clear from this that the ARS consider the original material to be an important criterion for defining authenticity. Is this correct?

The main source of knowledge concerning the temple of Athena Nike is undoubtedly the building in itself. Since the dismantling and rebuilding over the years may have changed the form and shape of the temple, the historical value, and thereby authenticity, of the temple of Athena Nike and the Acropolis as a whole, was weakened through the scouring of the Acropolis in the 1830's and the subsequent dismantlings and rebuildings. It is in the actual building material of the temple of Athena Nike that the main source of information about the authenticity of the building lies, and the pieces still hold their authentic value. Therefore, when basing their current restoration on the knowledge collected from the building material the ARS follow the idea of authenticity laid down in the Nara document.

In only trying to recreate the buildings original form and not its usage- or artistic values which have changed over time, I feel that the ARS are in their full right to restore the temple on the grounds of authenticity. There is enough authentic building material to successfully recreate an authentic version of the temple.

7.5 The future

The temple of Athena Nike has undergone three interventions during the last 200 years, and in each of them the temple has been completely dismantled down to its foundation. While the restorations may have been seen as absolutely necessary to ensure the further survival of the monument, it is also clear that every intervention on the temple causes a little more damage to the ancient material in form of the wear and tear on the marble while being handled. In all these three cases, the positive gain of the restoration has been seen as greater than the damage the monument sustained. But how long can this go on? This question is one of the more serious ones in the debate, and also one of the most difficult to answer.

There is no guarantee that a new intervention will not be needed in the foreseeable future. How long should one keep working to preserve the monuments for just a little bit longer, and are there any alternatives? Can we just let the monuments decay in front of our eyes? Are there any hopes for the future? Great amounts of money are being spent to keep the monuments standing without any security for the future; are the cultural gains sufficient to support this use of funds?

With every passing year the technology we have available to us is becoming more advanced, and we are learning new techniques. At the same time the rapid evolution of our technological and industrial society is proving catastrophic to the monuments. It is clear that the main threats to the monuments on the Acropolis today are the increased pollution, and also the mass-tourism. While the problem of tourism is being dealt with by limiting visiting hours, and creating safe routes through the historical site of the Acropolis, the problem of the pollution is not satisfactorily resolved. The pollution, as pointed out by Prof. Lothar Haselberger, is working faster than the restorers are, and the solutions so far are not adequate. Should the pollution continue at current levels, it would be the death-sentence for the Acropolis monuments, Haselberger claims. The deterioration will not be possible to repair within the limits for restoration work. (Haselberger 1994:215-217). The building archaeologist Gottfried Gruben agrees that the situation today is not sustainable, at least not in the long run. The current restoration is a waste of money and time as long as the deterioration due to the pollution is not stopped. (Gruben 2002:286).

Over the course of the years different suggestions have been made as to how to secure the monuments survival. I will here relate the two main ideas and their problems:

In the study for the restoration of Athena Nike from 1994 Giraud forwards a suggestion proposed as a solution to the pollution problem: the erection of a transparent, perhaps glass, structure encompassing the temple of Athena Nike or even the whole Acropolis. The atmosphere in this structure can then be regulated, which would effectively preserve the marble from the pollution.

I shall not concern myself with the actual technical challenges this might encounter, but look at whether it would damage the monuments in other ways. This solution would ensure that the context between the monuments would remain intact, especially if a dome was constructed over the entire Acropolis, and it would ensure their continuing existence. But a treatment like this would set the monuments apart from the larger context they exist in, namely the city of Athens and their connection to the other monuments in the area and not least set them apart from the other examples of world heritage as being "more important". Such a dome, even being transparent would be seen as a barrier or cage, and the monuments would be further removed from both the normal passage of time and their interactions with the outside world.

Another idea would be the removal of the entire monuments to museums, and replicas to be placed upon the sacred rock. This would then negate the problem of context, as one would still be able to visit the rock and see the replicas in the correct context.

The practice of replicas substituting the original monument has been done in cases where mass tourism threatens the survival of monuments. However, it is doubtful that it would be possible to do this with monuments the size of the Parthenon, and there are too many questions connected to other aspects to make this feasible.

For now the future for the monuments on the Acropolis is undecided. I expect the issue will be addressed again when the current series of restorative projects have come to a close, and the monuments once again stand proudly without scaffolding or worksites.

8. Concluding remarks

After having looked at the methods that were used in the three interventions and the questions that have arisen concerning the interventions I will now step back and sum up by looking at the interventions as a whole in the time and situation they were executed and discuss whether the work undertaken could be considered successful.

The first anastylosis of the temple of Athena Nike, by Ludwig Ross and Kyriakos Pittakis in the 1830's, has been called the first anastylosis of a classical building, and is considered a good example of application of the method. It was carried out 100 years before the first charters concerning anastylosis were formulated, and also before the term anastylosis was established in other countries, but followed the principles laid down by Leo von Klenze, which to some degree later served as the basis for the Charter of Athens.

The anastylosis by Ross and Pittakis is the most drastic of the three carried out on the temple. From the rubble of the Turkish occupation the ancient building material was found and a temple was re-erected which had not been seen for 200 years.

It is quite clear from the written records of Ross' work that he was eager to execute the first anastylosis on Greek soil. The sensational discovery of the pieces of the temple in the Turkish fortification, and the uncovering of the intact base, in addition to the symbolic value of re-erecting a lost part of ancient history, as Greece itself had newly been re-erected, gave a massive boost to the work. It is probably due to this optimism, and the lack of any rules to govern the practice of anastylosis that the rebuilding of the temple of Athena Nike was done rather hastily and unmethodically.

Ross drew his inspiration from the work done in Rome at roughly the same time, but since the subjects for the restorations were different from each other he had to improvise a lot of his methods and tools. With the knowledge of restoration we have today some of the methods used by Ross and Pittakis seem poorly planned or impractical, such as the decision to leave the slanting crepidoma *in situ* thus creating problems for themselves in the positioning of the upper layers. This situation, though creating difficulties for them at the time, has prevented the loss of important information concerning the temple that they inadvertently preserved for later scholars.

Ross' and Pittakis' anastylosis emphasizes the symbolic value of the temple, as well as restores a historic value which is well suited to its new historic context.

In general the work done by Ludwig Ross and Kyriakos Pittakis has been agreed to be a very good prototype for anastylosis of classical monuments. The form of the temple was re-established, and a lot of the damage caused by both time and man was repaired. In the work in general there seems to be awe and respect for the age and authenticity of the monument, which has led to the right decisions under the restoration. The guidelines of the time, proposed by Leo von Klenze, have been followed as a means of support for a type of work which had not been undertaken before.

The second anastylosis of the temple of Athena Nike by Nikolaos Balanos and Anastasios Orlandos is more controversial. The work was started as a rescue operation to prevent the temple from collapsing in on itself, but the end result of the intervention was far from satisfactory in the long run.

Neither of the restorers seem to have paid much heed to the newly signed Charter of Athens which lays down the guidelines for restoration work, but continued to work the way they did before the document was formulated. Following the neo-classical or purist approach the second anastylosis changed the character of the monument from a ruin to a work of art. A lot of effort was spent to return the monument to its original classical form and beauty. Larger parts of the temple were rebuilt than the material could allow for, and the completions were made to resemble the originals to the point where it is hard to discern them from each other.

Balanos shows some consideration for the monument as a historical entity in his dismantling of the crepidoma by leaving one block *in situ* to ensure a historically correct restoration, but did not show the same respect for the original placement of the blocks.

The methods used by Balanos in this anastylosis are however the main criticism of this anastylosis, and rightly so. His extensive use of iron clamps to secure the stability of the monument, the joining of ancient building material for new additions and cementing of fragments to the originals using meyer-glue has made the current anastylosis necessary, and its work harder.

In defence of Balanos it has to be said that he never intended the damage that was caused to the monuments through his use of iron, and that he did what he did in good faith. More thorough work or testing beforehand might have prevented the damage, but at the end of his career, and with little or no supervision Balanos did what he thought was right in the circumstances; he had after all been praised for his similar work on the other monuments.

In his completion of the temple, Orlandos shows that although he was more sensitive to the use and placement of the original period, he paid less heed to the historical phases of the building than Balanos did. For Orlandos the classical temple was the ideal.

The question whether this anastylosis was successful or not is harder to answer: The temple and bastion were saved from collapse, but the consequent damage to the members by the iron clamps is not to be overlooked. The anastylosis has at least kept the temple standing for the next generation of archaeologists to see and work on, and this fact is redeeming in itself.

The third anastylosis of the temple of Athena Nike by the ARS has been described as a katastylosis rather than an anastylosis, in which the temple is being deconstructed to a pre-1930's state. But simultaneously the best work is being done in this anastylosis.

Methodologically it is hard to say anything negative about the third restoration as the full report has not been published, and most of the current criticism concerns more socio-political questions. The methods used in this anastylosis are based on the experience from the previous work on the Acropolis, and it seems that they adhere to the guidelines for restoration as far as possible. The material is thoroughly studied beforehand, documented during the work, and will be published soon after the work is finished. The methods are based on rigorous testing to ensure the best result and each step of the process has been planned and discussed.

In order to justify the many questions that have arisen concerning a third anastylosis of the temple of Athena Nike, the current anastylosis focuses mainly on the authenticity of the monument, thereby legitimising such an intervention, as well as strengthening both the actual physical state of the temple, but also recognizing the public view of its value. In general the ARS are doing their best to cater for the demands of the public, who are after all the main appreciators of their work.

In this third restoration the guidelines seem more consciously followed than in any of the previous ones, and where the principles contradict each other, the ARS have considered the implications of each path before deciding.

It remains however to see whether this third restoration will withstand the test of time and the thorough examination it will undoubtedly receive soon after its completion.

Appendix 1: Figures

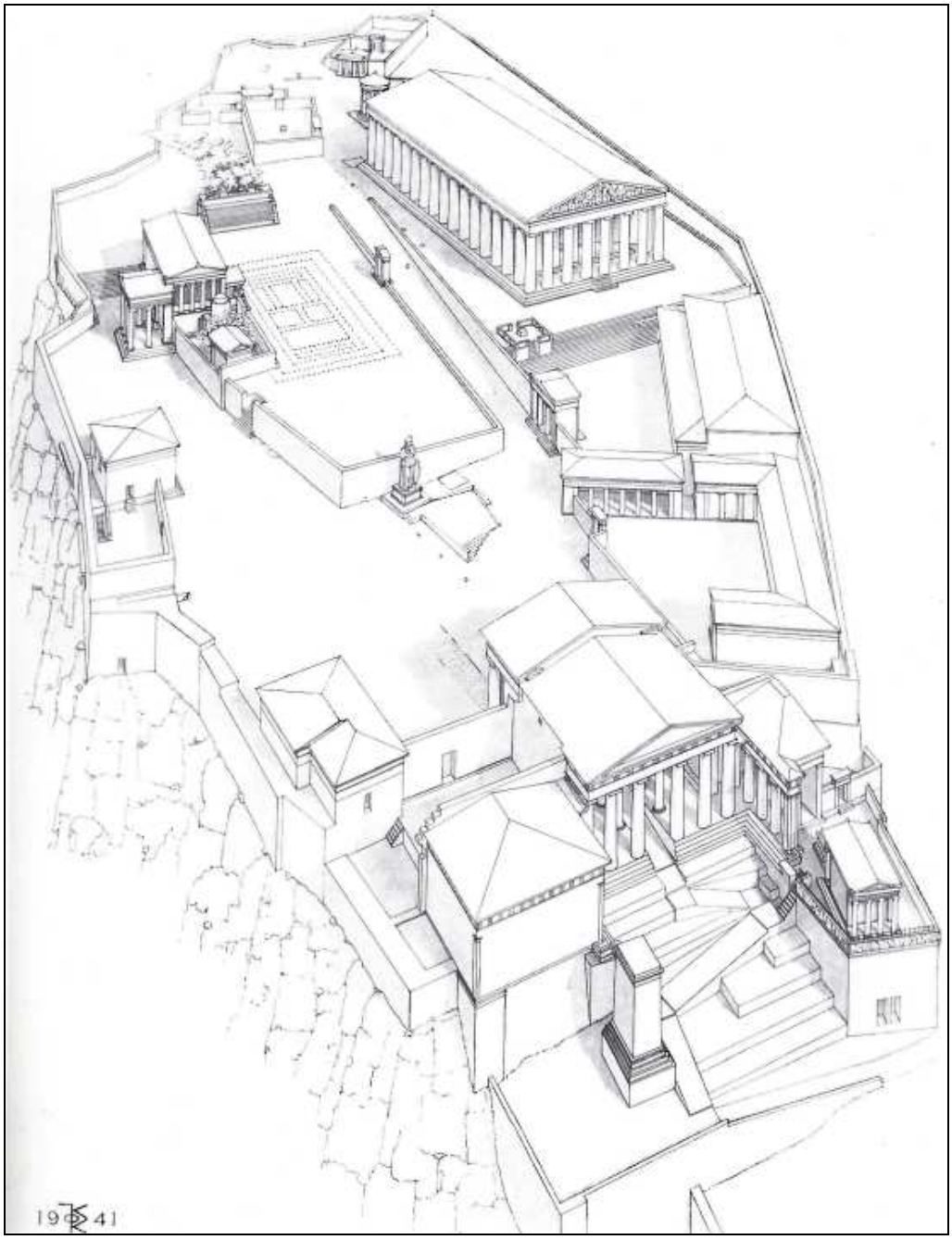

Figure 1: A reconstruction of the classical Acropolis.
(Rhodes 1995:141)

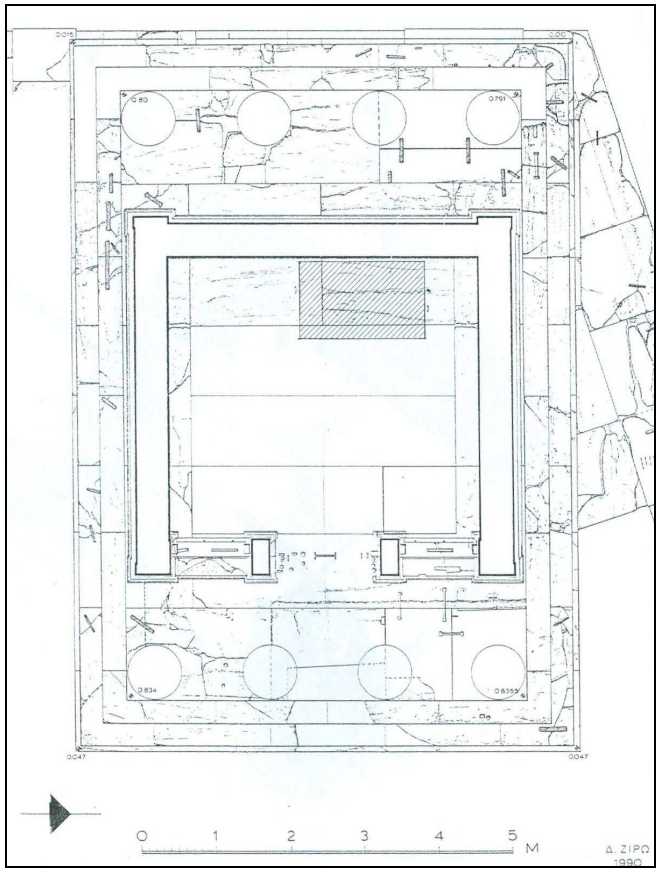

Figure 2: Plan of the temple of Athena Nike.
(Giraud 1994, plate 3)

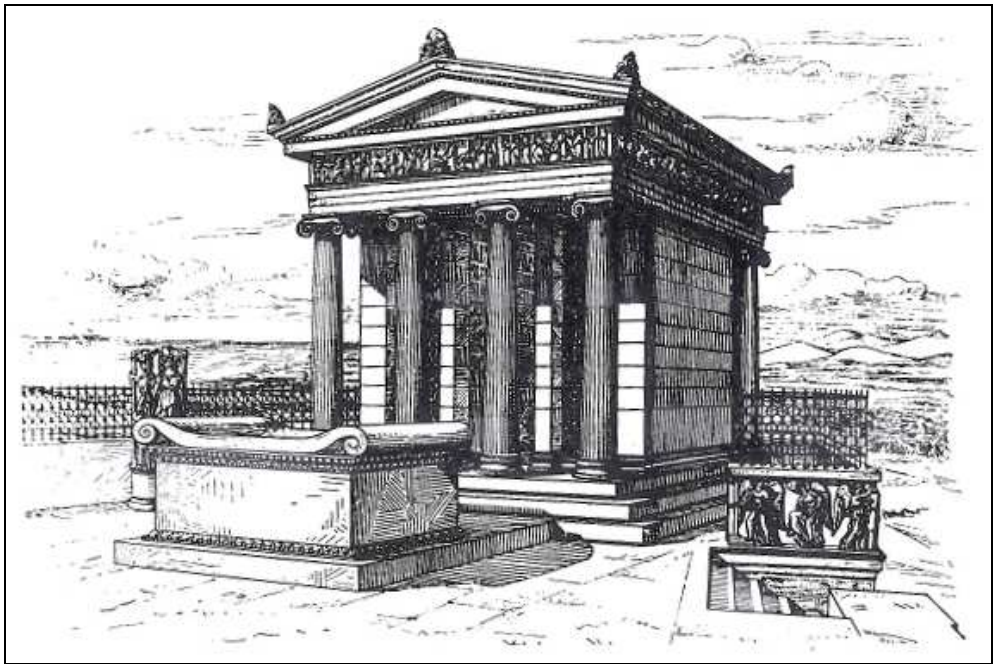

Figure 3: Reconstructed temple of Athena Nike.
(Rhodes 1995:121)

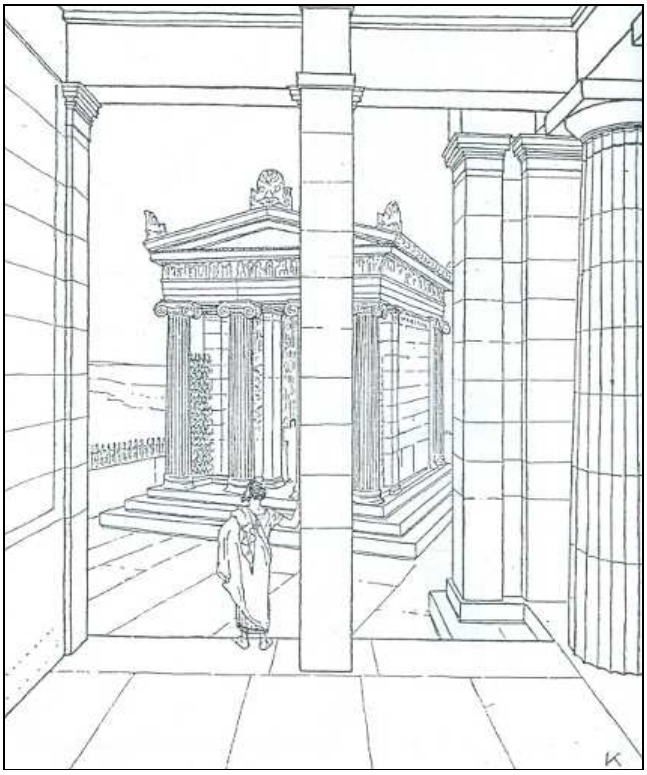

Figure 4: The temple of Athena Nike in relation to the Propylaia. (Giraud 1994, plate 14)

Figure 5: The temple of Athena Nike arising from the rubble. (Thomlinson 1992, plate 35)

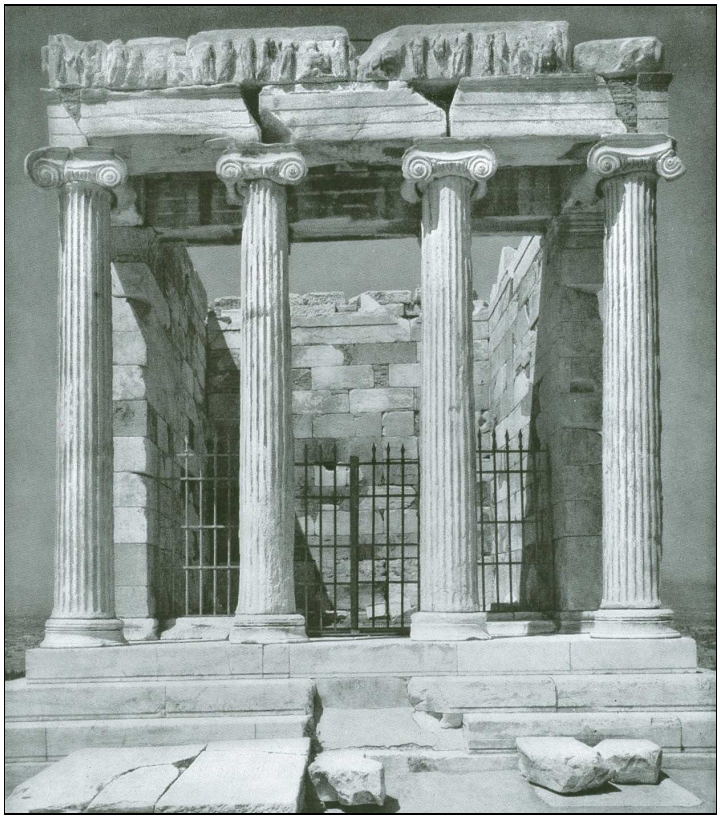

Figure 6: Front view of the temple after the first anastylosis by Ross and Pittakis (Hege & Rodenwaldt 1930, plate 70)

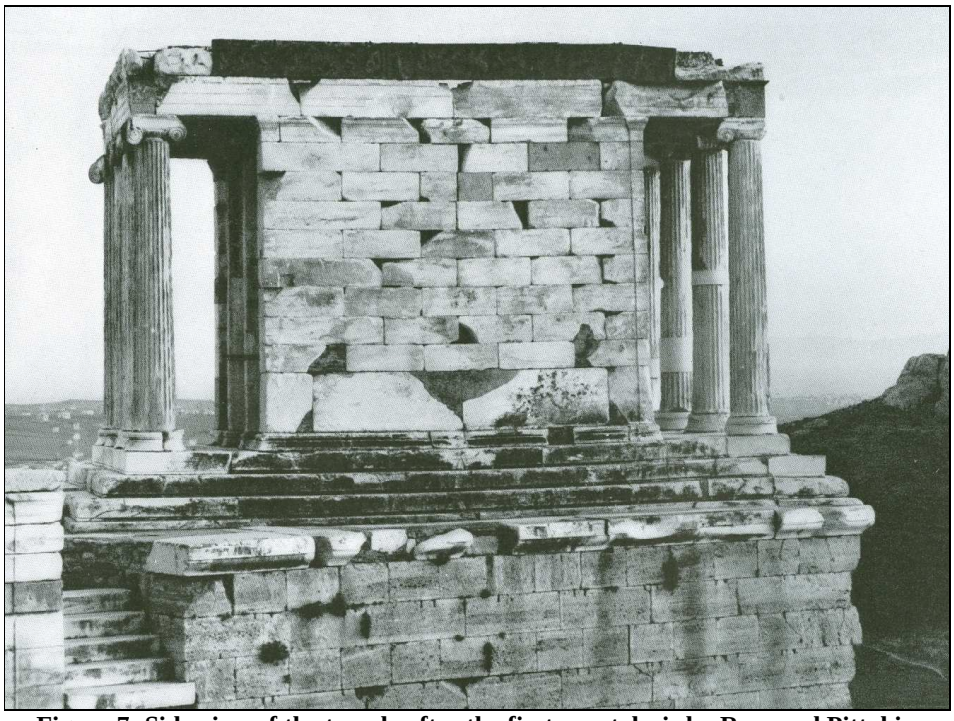

Figure 7: Side view of the temple after the first anastylosis by Ross and Pittakis. (Hege & Rodenwaldt 1930, plate 68)

Figure 8: Front view of the temple after the second anastylosis by Balanos and Orlandos (CCAM 1994:178)

Figure 9: Side view of the temple after the second anastylosis by Balanos and Orlandos (CCAM 1994:173)

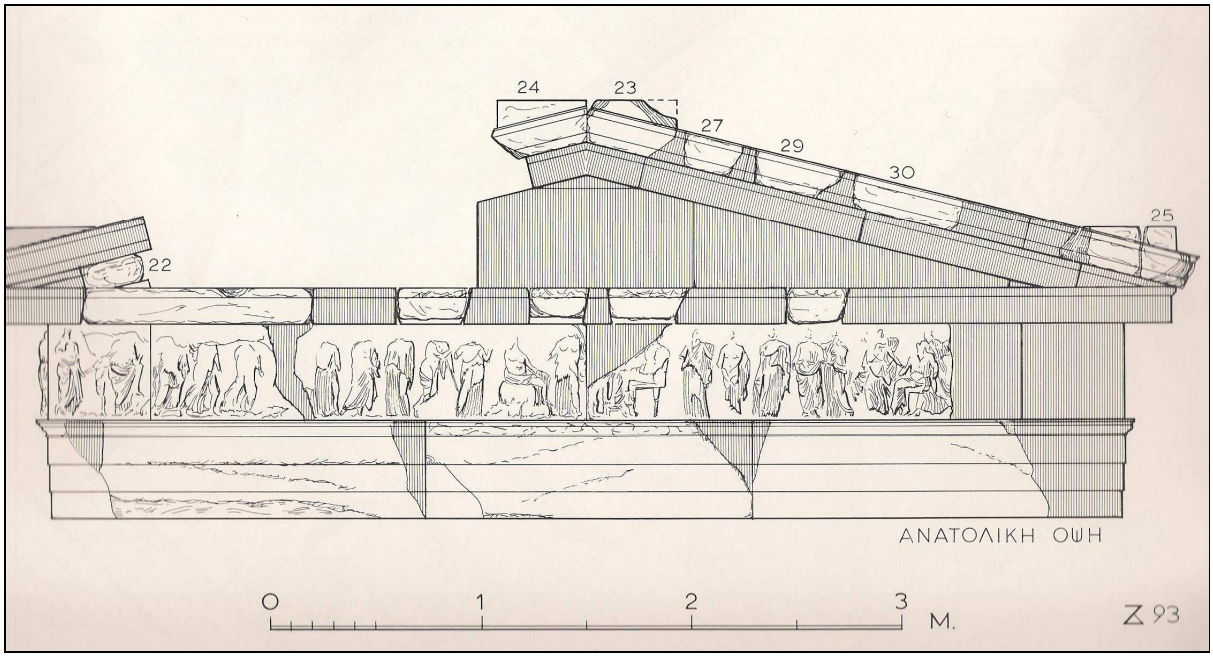

Figure 10: Proposal for the restoration of the pediment, cornice and sima by Giraud. (Giraud 1994, plate 224).

Figure 11: The current restoration of the temple by the ARS. (Photo E. de Bree)

Appendix 2: Charters of restoration

THE ATHENS CHARTER FOR THE RESTORATION OF HISTORIC MONUMENTS

Adopted at the First International Congress of Architects and Technicians of Historic Monuments, Athens 1931

At the Congress in Athens the following seven main resolutions were made and called “Carta del Restauro”:

1. International organizations for Restoration on operational and advisory levels are to be established.
2. Proposed Restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures.
3. Problems of preservation of historic sites are to be solved by legislation at national level for all countries.
4. Excavated sites which are not subject to immediate restoration should be reburied for protection.
5. Modern techniques and materials may be used in restoration work.
6. Historical sites are to be given strict custodial protection.
7. Attention should be given to the protection of areas surrounding historic sites.

General Conclusions of the Athens Conference

I. DOCTRINES. GENERAL PRINCIPLES.

The Conference heard the statement of the general principles and doctrines relating to the protection of monuments.

Whatever may be the variety of concrete cases, each of which are open to a different solution, the Conference noted that there predominates in the different countries represented a general tendency to abandon restorations in toto and to avoid the attendant dangers by initiating a system of regular and permanent maintenance calculated to ensure the preservation of the buildings.

When, as the result of decay or destruction, restoration appears to be indispensable, it recommends that the historic and artistic work of the past should be respected, without excluding the style of any given period.

The Conference recommends that the occupation of buildings, which ensures the continuity of their life, should be maintained but that they should be used for a purpose which respects their historic or artistic character.

II. ADMINISTRATIVE AND LEGISLATIVE MEASURES REGARDING HISTORICAL MONUMENTS

The Conference heard the statement of legislative measures devised to protect monuments of artistic, historic or scientific interest and belonging to the different countries.

It unanimously approved the general tendency which, in this connection, recognises a certain right of the community in regard to private ownership.

It noted that the differences existing between these legislative measures were due to the difficulty of reconciling public law with the rights of individuals.

Consequently, while approving the general tendency of these measures, the Conference is of opinion that they should be in keeping with local circumstances and with the trend of public opinion, so that the least possible opposition may be encountered, due allowance being made for the sacrifices which the owners of property may be called upon to make in the general interest.

It recommends that the public authorities in each country be empowered to take conservatory measures in cases of emergency.

It earnestly hopes that the International Museums Office will publish a repertory and a comparative table of the legislative measures in force in the different countries and that this information will be kept up to date.

III. AESTHETIC ENHANCEMENT OF ANCIENT MONUMENTS.

The Conference recommends that, in the construction of buildings, the character and external aspect of the cities in which they are to be erected should be respected, especially in the

neighbourhood of ancient monuments, where the surroundings should be given special consideration. Even certain groupings and certain particularly picturesque perspective treatment should be preserved.

A study should also be made of the ornamental vegetation most suited to certain monuments or groups of monuments from the point of view of preserving their ancient character. It specially recommends the suppression of all forms of publicity, of the erection of unsightly telegraph poles and the exclusion of all noisy factories and even of tall shafts in the neighbourhood of artistic and historic monuments.

IV. RESTORATION OF MONUMENTS.

The experts heard various communications concerning the use of modern materials for the consolidation of ancient monuments. They approved the judicious use of all the resources at the disposal of modern technique and more especially of reinforced concrete.

They specified that this work of consolidation should whenever possible be concealed in order that the aspect and character of the restored monument may be preserved.

They recommended their adoption more particularly in cases where their use makes it possible to avoid the dangers of dismantling and reinstating the portions to be preserved.

V. THE DETERIORATION OF ANCIENT MONUMENTS.

The Conference noted that, in the conditions of present day life, monuments throughout the world were being threatened to an ever-increasing degree by atmospheric agents.

Apart from the customary precautions and the methods successfully applied in the preservation of monumental statuary in current practice, it was impossible, in view of the complexity of cases and with the knowledge at present available, to formulate any general rules.

The Conference recommends:

1. That, in each country, the architects and curators of monuments should collaborate with specialists in the physical, chemical, and natural sciences with a view to determining the methods to be adopted in specific cases;

2. That the International Museums Office should keep itself informed of the work being done in each country in this field and that mention should be made thereof in the publications of the Office.

With regard to the preservation of monumental sculpture, the Conference is of opinion that the removal of works of art from the surroundings for which they were designed is, in principle, to be discouraged. It recommends, by way of precaution, the preservation of original models whenever these still exist or if this proves impossible, the taking of casts.

VI. THE TECHNIQUE of CONSERVATION.

The Conference is gratified to note that the principles and technical considerations set forth in the different detailed communications are inspired by the same idea, namely:

In the case of ruins, scrupulous conservation is necessary, and steps should be taken to reinstate any original fragments that may be recovered (anastylosis), whenever this is possible; the new materials used for this purpose should in all cases be recognisable. When the preservation of ruins brought to light in the course of excavations is found to be impossible, the Conference recommends that they be buried, accurate records being of course taken before filling-in operations are undertaken.

It should be unnecessary to mention that the technical work undertaken in connection with the excavation and preservation of ancient monuments calls for close collaboration between the archaeologist and the architect.

With regard to other monuments, the experts unanimously agreed that, before any consolidation or partial restoration is undertaken, a thorough analysis should be made of the defects and the nature of the decay of these monuments. They recognised that each case needed to be treated individually.

VII. THE CONSERVATION OF MONUMENTS AND INTERNATIONAL COLLABORATION.

a) Technical and moral co-operation.

The Conference, convinced that the question of the conservation of the artistic and archaeological property of mankind is one that interests the community of the States, which are wardens of civilisation,

Hopes that the States, acting in the spirit of the Covenant of the League of Nations, will collaborate with each other on an ever-increasing scale and in a more concrete manner with a view to furthering the preservation of artistic and historic monuments;

Considers it highly desirable that qualified institutions and associations should, without in any manner whatsoever prejudicing international public law, be given an opportunity of manifesting their interest in the protection of works of art in which civilisation has been expressed to the highest degree and which would seem to be threatened with destruction;

Expresses the wish that requests to attain this end, submitted to the Intellectual Co-operation Organisation of the League of Nations, be recommended to the earnest attention of the States.

It will be for the International Committee on Intellectual Co-operation, after an enquiry conducted by the International Museums Office and after having collected all relevant information, more particularly from the National Committee on Intellectual Co-operation concerned, to express an opinion on the expediency of the steps to be taken and on the procedure to be followed in each individual case.

The members of the Conference, after having visited in the course of their deliberations and during the study cruise which they were able to make on this occasion, a number of excavation sites and ancient Greek monuments, unanimously paid a tribute to the Greek Government, which, for many years past, has been itself responsible for extensive works and, at the same time, has accepted the collaboration of archaeologists and experts from every country.

The members of the Conference there saw an example of activity which can but contribute to the realisation of the aims of intellectual co-operation, the need for which manifested itself during their work.

b) The role of education in the respect of monuments.

The Conference, firmly convinced that the best guarantee in the matter of the preservation of monuments and works of art derives from the respect and attachment of the peoples themselves;

Considering that these feelings can very largely be promoted by appropriate action on the part of public authorities;

Recommends that educators should urge children and young people to abstain from disfiguring monuments of every description and that they should teach them to take a greater and more general interest in the protection of these concrete testimonies of all ages of civilisation.

c) Value of international documentation.

The Conference expresses the wish that:

1. Each country, or the institutions created or recognised competent for this purpose, publish an inventory of ancient monuments, with photographs and explanatory notes;
2. Each country constitute official records which shall contain all documents relating to its historic monuments;
3. Each country deposit copies of its publications on artistic and historic monuments with the International Museums Office;
4. The Office devote a portion of its publications to articles on the general processes and methods employed in the preservation of historic monuments;
5. The Office study the best means of utilising the information so centralised.

INTERNATIONAL CHARTER FOR THE CONSERVATION AND RESTORATION OF MONUMENTS AND SITES (THE VENICE CHARTER 1964)

IInd International Congress of Architects and Technicians of Historic Monuments, Venice, 1964.

Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity.

It is essential that the principles guiding the preservation and restoration of ancient buildings should be agreed and be laid down on an international basis, with each country being responsible for applying the plan within the framework of its own culture and traditions.

By defining these basic principles for the first time, the Athens Charter of 1931 contributed towards the development of an extensive international movement which has assumed concrete form in national documents, in the work of ICOM and UNESCO and in the establishment by the latter of the International Centre for the Study of the Preservation and the Restoration of Cultural Property. Increasing awareness and critical study have been brought to bear on problems which have continually become more complex and varied; now the time has come to examine the Charter afresh in order to make a thorough study of the principles involved and to enlarge its scope in a new document.

Accordingly, the IInd International Congress of Architects and Technicians of Historic Monuments, which met in Venice from May 25th to 31st 1964, approved the following text:

DEFINITIONS

Article 1.

The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant

development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time.

Article 2.

The conservation and restoration of monuments must have recourse to all the sciences and techniques which can contribute to the study and safeguarding of the architectural heritage.

Article 3.

The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence.

CONSERVATION

Article 4.

It is essential to the conservation of monuments that they be maintained on a permanent basis.

Article 5.

The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.

Article 6.

The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and colour must be allowed.

Article 7.

A monument is inseparable from the history to which it bears witness and from the setting in which it occurs. The moving of all or part of a monument cannot be allowed except where the safeguarding of that monument demands it or where it is justified by national or international interest of paramount importance.

Article 8.

Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation.

RESTORATION

Article 9.

The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument.

Article 10.

Where traditional techniques prove inadequate, the consolidation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific data and proved by experience.

Article 11.

The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work.

Article 12.

Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence.

Article 13.

Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings.

HISTORIC SITES

Article 14.

The sites of monuments must be the object of special care in order to safeguard their integrity and ensure that they are cleared and presented in a seemly manner. The work of conservation and restoration carried out in such places should be inspired by the principles set forth in the foregoing articles.

EXCAVATIONS

Article 15.

Excavations should be carried out in accordance with scientific standards and the recommendation defining international principles to be applied in the case of archaeological excavation adopted by UNESCO in 1956.

Ruins must be maintained and measures necessary for the permanent conservation and protection of architectural features and of objects discovered must be taken. Furthermore, every means must be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning.

All reconstruction work should however be ruled out “a priori”. Only anastylosis, that is to say, the reassembling of existing but dismembered parts can be permitted. The material used for integration should always be recognizable and its use should be the least that will ensure the conservation of a monument and the reinstatement of its form.

PUBLICATION

Article 16.

In all works of preservation, restoration or excavation, there should always be precise documentation in the form of analytical and critical reports, illustrated with drawings and photographs. Every stage of the work of clearing, consolidation, rearrangement and integration, as well as technical and formal features identified during the course of the work, should be included. This record should be placed in the archives of a public institution and made available to research workers. It is recommended that the report should be published.

Literature:

Abbreviations:

ARN = The Acropolis Restoration News

CCAM = Acropolis restorations: The CCAM interventions. Edited by Economakis, R. London: Academy Editions.

RAA = I Restauri dell'Acropoli de Atene, Restoration of the Athenian Acropolis 1975-2003. Quaderni ARCo. Roma: Gangemi.

2nd IMRAM = 2nd International Meeting for the Restoration of the Acropolis Monuments. Athens 1985. Ministry of Culture and Science. Committee for the preservation of the Acropolis monuments.

3rd IMRAM = 3rd International Meeting for the Restoration of the Acropolis Monuments. Athens 1990. Ministry of Culture. Committee for the preservation of the Acropolis monuments.

4th IMRAM = 4th International Meeting for the Restoration of the Acropolis Monuments. Athens 1994. Ministry of Culture. Committee for the preservation of the Acropolis monuments.

5th IMRAM = 5th International Meeting for the Restoration of the Acropolis Monuments. Athens 2002. Ministry of Culture. Committee for the preservation of the Acropolis monuments.

Avrami, E., R. Mason & M. de la Torre. 2000. *Values and heritage conservation.* Research report, the Getty Conservation Institute.

Balanos, N. 1956. "Η νέα άναστήλωσις του ναού της Αθηνάς Νίκης (1935-1939)" *Αρχαιολογική Εφημερίς* 1937, part 3, [1956]. pp. 776-807.

Biers, W.R. 1996. *The archaeology of Greece.* 2nd ed. Ithaca: Cornell University Press.

Borbein, A.H., T. Hölscher & P. Zanker. 2000. "Einleitung" *Klassische Archäologie. Eine Einführung.* Edited by Borbein, A.H., T. Hölscher & P. Zanker. Darmstadt: Wissenschaftliche Buchgesellschaft. pp. 7-21.

Bouras, C. 1994. "The International Charter of Venice and the restoration of classical buildings". *CCAM*. pp. 89-91.

Bouras, C. 2002. "The work of the Acropolis Restoration Service during the year 2001". *ARN* 2. pp. 12-19.

Bouras, C. 2007. "Theoretical principles of the interventions on the monuments of the Acropolis". *ARN* 7. pp. 2-5.

Camp, J.M. 2001. *The Archaeology of Athens.* London: Yale University Press.

CCAM. 1994a. “The temple of Athena Nike: a brief description” *CCAM*. p. 179.

CCAM. 1994b. “The international debate, the current interventions.” *CCAM*. pp. 185-191.

CCAM.. 1994c. “Committee for the conservation of the Acropolis monuments. Questionnaire to the participants of the third international meeting for the conservation of the Acropolis monuments (Athens 1989)”. *CCAM*. pp. 193-205.

Casanaki, M & F. Mallouchou-Tufano. 1985. *The Acropolis of Athens, conservation, restoration and research 1975-1983.* Athens: Ministry of Culture, Committee for the Preservation of the Acropolis Monuments.

Dimacopoulos, J. 1985. “Anastylosis and anasteloseis” *Icomos-Information, January/March no.* 1-1986. pp. 16-25.

Dinsmoor, W.B. 1950. *The architecture of ancient Greece.* London: B.T. Batsford Ltd.

Economakis, R. 1994. “Acropolis restoration: an editorial”. *CCAM*. pp. 9-10.

Frazer, J.G. 1898. *Pausanias' description of Greece. Vol* 1. Translated with a commentary by J.G. Frazer. London: Macmillan and Co., Ltd.

Giraud, D. 1994. *Study for the restoration of the temple of Athena Nike*. Volumes 1a and 1b. Athens: Upourgeio Politismou, Epitropi Syntiriseos Minmeion Akropoleos.

Giraud, D. 2003. “The restoration project of the temple of Athena Nike”. *RAA.* pp. 134-137.

Gizzi, S. 2003. “The temple of Athena Nike.” *RAA.* pp. 128-133.

Gruben, G. 1986. *Die Tempel der Griechen.* 4th ed. Darmstadt: Wissenschaftliche Buchgesellschaft.

Gruben, G. 2000. “Klassische Bauforschung“. in *Klassische Archäologie. Eine Einführung.* Edited by Borbein, A.H., Hölscher, T. & Zanker, P. Darmstadt: Wissenschaftliche Buchgesellschaft. pp. 251-279.

Gruben, G. 2002. “Anastilosis in Griechenland”. *Xantener Berichte* 12, 2002. pp. 327-338.

Haselberger, L. 1994. “A building site once again. Phoenix's rise or the swan's last song”. *CCAM*. pp. 215-217.

Hege, W & G. Rodenwaldt. 1930. *Die Akropolis / aufgenommen von Walter Hege; Beschreiben von Gerhardt Rodenwaldt.* Berlin: Deutscher Kunstverlag

Hurwit, J.M. 1999. *The Athenian Acropolis: history, mythology and archaeology from the Neolithic era to the present.* Cambridge: Cambridge University Press.

Ioannidou, M. 2003. “Foundation and composition of the Acropolis Restoration Service (YSMA)”. *RAA.* pp. 27-30.

Ioannidou, M. 2007. “2000-2007, the restoration of the Acropolis by the YSMA” *ARN* 7. pp. 6-14.

Ioannidou, M. 2008. “2007-2008, progress of the Acropolis anastelosis works”. *ARN* 8. pp. 2-4.

Jokilheto, J. 1986. *A history of architectural conservation*. D.Phil thesis, The University of York, England.

Jokilheto, J. 2002. *A history of architectural conservation.* Oxford: Butterworth-Heinemann.

Korres, M. 1994. “The history of the Acropolis monuments”. *CCAM*. pp. 35-51.

Lawrence, A.W. & R.A. Thomlinson. 1996. *Greek architecture.* 6th ed. New Haven: Yale University Press.

Lembidaki, E. 2007. “On the occasion of the new restoration of the temple of Athena Nike. Looking back at the history of the cult statue of Athena Nike”. *ARN* 7. pp. 24-27.

Mallouchou-Tufano, F. 1994a. “Restoration work on the Acropolis (1975-94)” *CCAM*. pp. 13-15.

Mallouchou-Tufano, F. 1994b. “The history of interventions on the Acropolis” *CCAM*. pp. 69-85.

Mallouchou-Tufano, F. 1998. Η αναστήλωση των αρχαίων μνημείων στη νεώτερη Ελλάδα, 1834-1939 : το έργο της Εν Αθήναις Αρχαιολογικής Εταιρείας και της Αρχαιολογικής Υπηρεσίας. Bibliotheke tes en Athenais Archaiologikes Etaireias, Ap 176. Athens: Archaiologike Etaireia.

Mallouchou-Tufano, F. 2003. “International meetings on the Acropolis”. *RAA.* pp. 19-22.

Mamaloungas, K. 2005. “Temple of Athena Nike, study for the resetting of the blocks of the cella walls”. *ARN* 5. pp. 25-26.

Mark, I.S. 1993. *The Sanctuary of Athena Nike: Architectural Stages and Chronology*. AIA monograph new series 2, *Hesperia* Supplement 26. Princeton, New Jersey: The American School of Classical Studies at Athens.

Mattingly, H.B. 1982. “The Athena Nike Temple Reconsidered” *American Journal of Archaeology* 86. pp 381-385.

McNeal, R.A. 1991. “Archaeology and the destruction of the later Athenian Acropolis”. *Antiquity* 65. pp. 49-63.

Meiggs, R. 1972. *The Athenian Empire.* Oxford: Clarendon Press

Michalopoulou, D. 2004. “Technical issues and constructions in the restoration of the temple of Athena Nike”. *ARN* 4. pp. 18-20.

Murray, O. 1994. “Anastylosis and historical integrity”. *CCAM*. pp. 212-213.

Muss, U & Schubert, C. 1988. *Die Akropolis von Athen.* Graz: Akademische Druck- u. Verlagsanstalt

Müller-Wiener, W. 1977. “Archäologie, Bauforschung und Denkmalpflege: Die Verantwortung gegenüber Objekten am Fundort” in *Archäologie*. Berlin: Colloquium Verlag. pp. 152-161.

Orlandos, A.K. 1915. “Zum Tempel der Athena Nike”. *Mitteilungen des deutschen archäeologischen Instituts, Athenische Abteilung* 40. pp. 27-44.

Orlandos, A.K. 1940. “Nouvelles observations sur la construction du temple d’Athèna Nikè”. *Bulletin de Correspondance Hellenique* 1947-48. pp. 1-38.

Petzet, M. 2004. “Principles of Conservation / Introduction to the International Charters and Principles 40 Years after the Venice Charter” in *International Charters for Conservation and Restoration*. Edited by ICOMOS. München: Lipp GmbH. pp. 7-29

Porphyrios, D. 1994. “Restoration and Value”. *CCAM*. pp. 207-209.

Rhodes, R.F. 1995. *Architecture and Meaning on the Athenian Acropolis.* Cambridge: University Press.

Ross, L. 1837. “Originalbeiträge über seine ausgrabungen auf der Akropolis im 1835-37”. *Kunstblatt* 1935-37.

Ross, L., Schaubert, E., Hansen, C. 1839. *Die Akropolis von Athen nach den neuesten Ausgrabungen,* I, *Der Tempel der Nike Apteros.* Berlin

Schalles, H-J. 2000. “Klassische Archäologie und Denkmalpflege” in *Klassische Archäologie. Eine Einführung.* Edited by Borbein, A.H., T. Hölscher & P. Zanker. Darmstadt: Wissenschaftliche Buchgesellschaft. pp. 52-76.

Schmidt, H. 1993. *Wiederaufbau.* Stuttgart: Konrad Theiss Verlag.

Schneider, L & C. Höcker. 2001. *Die Akropolis von Athen, eine Kunst- und Kulturgeschichte.* Darmstadt: Primus Verlag

Schuller, M. 2002. *Monuments and sites VII: Building archaeology.* Edited by ICOMOS. München: Lipp GmbH.

Thomlinson, R.A. 1992. "Ten early photographs of Athens" *Annual of the British School at Athens* 87. pp. 447-453.

de Waele, J. 1997. "The temples of Athena Nike on the Acropolis of Athens. Ancient measurements and design". *Pharos, Journal of the Netherlands Institute at Athens, vol.* 5. pp. 27-48.

Watkin, D. 1994. "Restoring symbolism". *CCAM*. pp. 210-211.

Wesenberg, B. 1981. "Zur Baugeschichte des Niketempels". *Jahrbuch des deutschen archäeologischen Instituts* 96. pp. 28-54.

Woodhouse, C.M. 1991. *Modern Greece, a short history.* Fifth Ed. London: Faber & Faber.

Internet resources:

ICOMOS. 1994. *The Nara Document on Authenticity.*
http://www.international.icomos.org/charters/nara_e.htm (Accessed 05.05.2010).

ICOMOS. 1964. *International Charter for the conservation and restoration of monuments and sites. (The Venice Charter - 1964).*
http://www.international.icomos.org/charters/venice_e.htm (Accessed 05.05.2010).

ICOMOS. 1931. *The Athens Charter for the Restoration of Historic Monuments.*
http://www.icomos.org/docs/athens_charter.html (Accessed 05.05.2010).