LionBytes

An Occasional Communication to supporters of the Nemea Center

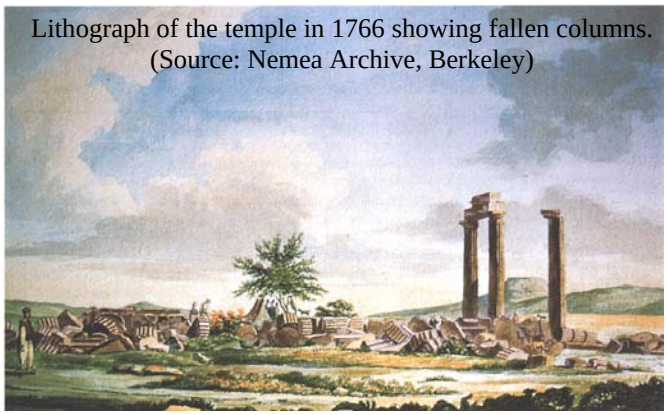
December 2007

In this LionBytes

Temple of Zeus Reconstruction Project
Summary and Prospects

The Temple of Zeus survived the ravages of human destruction in the post-classical period with three columns standing. This is the sight familiar to all who visited site up to and through the twentieth century.

Model of the Nemea site about 500 AD, with the destruction of the temple in progress. (Source: *Nemea A Brief Guide* by S.G. Miller, 2004)

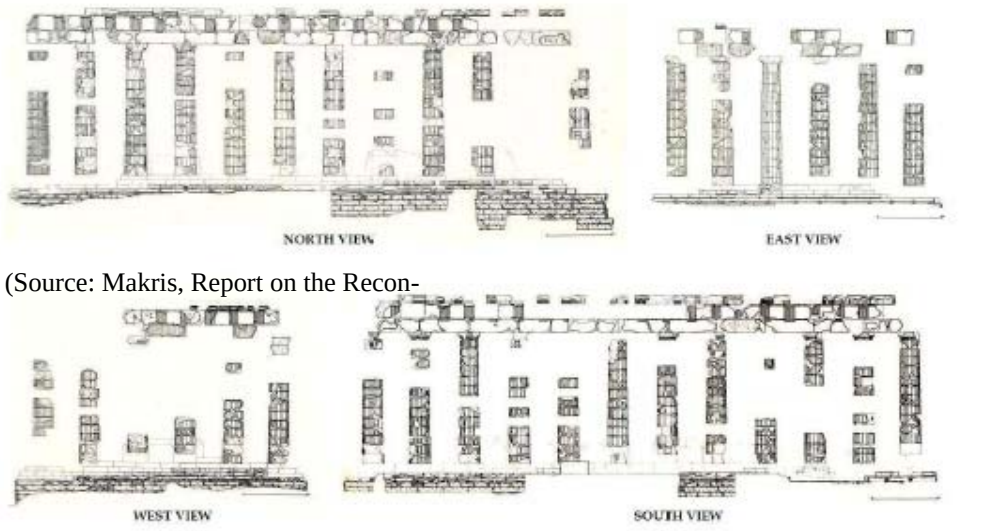


Lithograph of the temple in 1766 showing fallen columns. (Source: Nemea Archive, Berkeley)

Aerial view of the temple with fallen columns in situ. (Source: Nemea Archive, Berkeley)

Temple of Zeus before 1999. (Source: Nemea Archive, Berkeley)

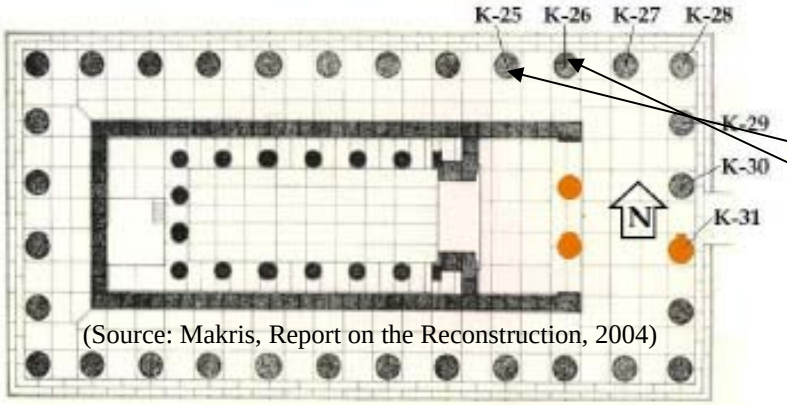
A comprehensive study of the temple by Bert Hodge Hill in 1966 established the architectural form and importance of the structure. The germ of the idea for reconstructing the temple came from then Director Stephen Miller in the late 70's. During 1980-82 Professor Frederick A. Cooper studied the fallen columns and other fragments lying on the ground and concluded that ~70% of the ancient material survived. His careful measuring and mapping of these fragments formed the basis for all future work in the reconstruction. The idea was fully developed in a careful study of the possibilities which was included in an exhibit produced by Cooper and Miller at the Benaki Museum in Athens in 1983. In 1984 permission was granted to begin reconstruction; the plan was to erect two columns on the north side.



(Source: Makris, Report on the Reconstruction, 2004)

Figure 20. Re-synthesis of the four sides of the exterior colonnade from the scattered architectural elements of the temple which were identified and recorded by Professor Frederic A. Cooper and his collaborators.

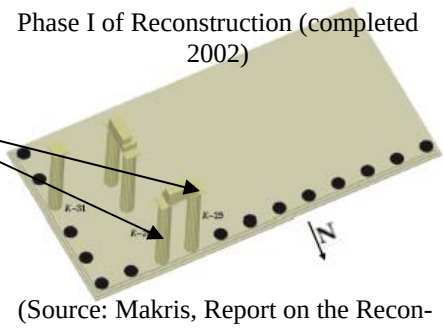
Some work on the foundations was begun, but financial resources dried up and the project was abandoned. It remained an unfulfilled dream for fifteen years. Then in 1999 Theodore Papalexopoulos (see next story) came forward with an offer of sufficient funds to undertake the work. Between 1999 and 2002 two columns and an epistyle were constructed/reconstructed: K-25 and K-26. Following this success,



(Source: Makris, Report on the Reconstruction, 2004)

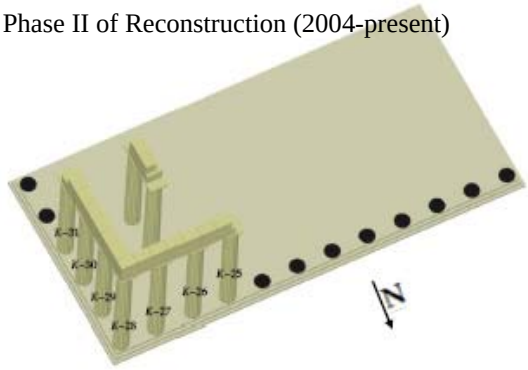
Figure 1. Plan view of the temple of Zeus at Nemea. The traces of the three columns standing from the ancient times are shown with orange.

Phase I of Reconstruction (completed 2002)



(Source: Makris, Report on the Reconstruction, 2004)

Phase II of Reconstruction (2004-present)



(Source: Makris, Report on the Reconstruction, 2004)

the Greek Ministry of Culture issued a permit in 2004 for the reconstruction of another four columns, K-27, K-28, K-29, and K-30. These columns will close the northeast corner of the temple and will give the visitor a clear idea of the of the interior space and magnitude of the monument. A major challenge in doing this is the reconstruction of the crepida or foundation. Four layers of cut blocks lie under the columns to provide a firm setting for all the weight of those columns. Many of these blocks were robbed for use in other buildings in late antiquity—their convenience and the fact that they were already nicely cut, squared, was an obvious enticement to anyone, including the Christian farmers who wished to build their basilica only one hundred yards away. The work of finding and cutting the stone for this foundation work has been one of the biggest challenges of the project as the local stone which must be used to replicate as much as possible the ancient situation tends to have weak points which crack at inconvenient places as it is cut from the quarry. Work on the columns themselves is also complicated and time-consuming. Both the full strength of the column at it base and a reconstruction of the original morphology of the column along its length must be achieved. In particular, the stylobate (the stone between the crepida and the column, on which the column rests) must be carefully restored. Finally, the epistyles must be repaired and placed in order to increase the stability of the recon-

Crepida. (Source: Makris, Report on the Reconstruction, 2007)

The epistyle is placed on two re-erected columns, 2002. (Source: *Nemea A Brief Guide* by S.G. Miller, 2004)

Stone cut from quarry. (Source: Madris Report on Reconstruction, 2006

structed columns. The Reconstruction project is the brainchild of Professor Stephan Miller; its conceptualization and inception are due to his zeal and perseverance. Professor Nicos Makris has led the reconstruction project since 2003. A world-renowned civil engineer, he was at Berkeley until 2004 and is now a professor at the University of Patras, Greece, holding a Research Investigator appointment at the Earthquake Engineering Research Center at Berkeley as well. At Nemea, Aikaterina Skere, architect, provides on-site supervision. Kostos Zambas and Manolis Korres, Greek archaeologists and engineers with extensive experience in the reconstruction of anicent monuments, have added valuable consulting advice. But is to Makris most of all that we owe the splendid progress of this impressive project.

Temple Under Reconstruction — Summer 2007

Financing the Reconstruction

Funding for the temple reconstruction is provided by Theodore Papalexopoulos, the Hotel Casino of Loutraki, Mr. and Mrs. John Moscahlaides of New York and Athens, the Stavros Niarchos Foundation, the SAGA Foundation of New York, Vangelis Chronis, the Thanos Mavrocordatos Family, And the Michael Stasinopoulos Foundation. We are very grateful to all for their support.

The Future of the Reconstruction

In 2000 Stephen Miller wrote, "...we should never think of a total temple standing at Nemea. We lack many of the interior Corinithian columns … [and other architectural elements]. The lack of so much material is an important reason why the complete Temple of Nemea Zeus cannot be reconstructed. The replacement of so many ancient blocks with modern stone would have to be considered a new building on ancient foundations, rather than a reconstruction of the ancient temple." (*Chronicle of the University of California*, Fall 2000 p. 132). Conceptualization of future work is based upon this premise. Further work is of course predicated on the Nemea Center and the Earthquake Engineering Research Center agreeing on a plan, on the Greek Ministry of Culture approving that plan with the requisite permit, and on sufficient funding being available from private sources. But in general terms, we might

Phase III of Reconstruction (under consideration)

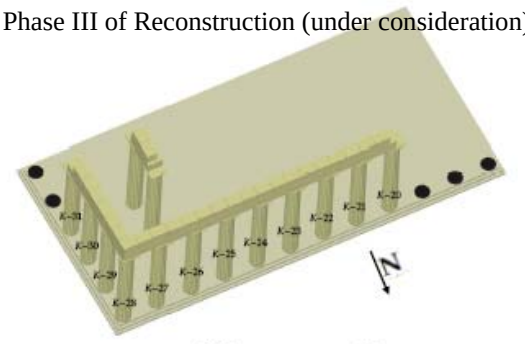


Figure 21. A proposition for the next expansion of the reconstruction.

think of a next phase which would add five more columns on the north side, virtually closing it off but stopping short of the northwest corner which has major structural issues preventing the erections of columns there. The following phase might be the completion of the columns on the east side and continuing with those on the south side.

Phase IV of Reconstruction (hypothetical)

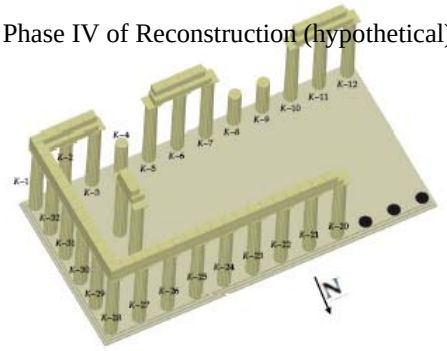


Figure 22. Proposed future expansion of the reconstruction of the temple of Zeus at Nemea.

Thedore Papalexopoulos and the Opheltis —The Friends of Nemea Foundation

Fundamental to the success of the Reconstruction of the Temple of Zeus is the support both financial and personal of Theodore Papalexopoulos. Papalexopoulos is Deputy Chairman of the Board and Managing Director of TITAN Corp. TITAN is a major producer of cement and other building materials worldwide; it began its history in Greece over a century ago and currently supplies approximately 40% of all the cement in that country. Papalexopoulos has led Titan's growth and transformation to a global player, but he is also well known for his commitment to corporate governance and social responsibility. He has served on the European Round Table of Industrialists and on the Board of Directors of the Association for the Monetary Union of Europe. He is the Honorary Chairman of the Foundation for Economic and Industrial Research, the Chairman of the Citizens' Movement for an Open Society, and the first Chairman of the Council of Greek-Turkish Business Cooperation. Far beyond being 'just' a leader in the national and international business community, Papalexopoulos is also well known for his generous support of cultural and civic causes, as well as for his deep dedication to the social welfare of his employees. He became interested in the cultural imperative of preserving and restoring the Temple of Zeus in the mid-90's. Along with a number of colleagues and friends he founded Opheltis — The Friends of Nemea "to promote the cultural heritage of the archaeological site of Nemea and its immediate goal of fundraising for the reconstruction of the Temple of Zeus." The Foundation and its current President, …, continue their excellent work. But it is Papalexopoulos himself who 'jump started' the reconstruction by approaching Stephen Miller with an offer in 1999 to finance the first two columns. He has continued to offer advice and encouragement as Professor Makris has continued

[picture of Mr. Papalexopoulos]

with the reconstruction. But beyond that, he has personally worked for the success of the project. For example, he arranged for Titan Cement to-provide a crane for work on the columns, and a dust control system for the shed in which much of the stone cutting takes place. His concern for the workers was such that he provided supplemental workers' compensation coverage when he felt the coverage mandated by Greek law fell short of his standards for worker protection. And his interest in Nemea is not confined to the Temple alone. He has been a strong supporter of the restoration of the stadium tunnel, for which he has recently offered 50,000 euros for planning the restoration, and of the acquisition of land between the sanctuary proper and the stadium. In 2004 he received the Chancellor's Citation from Berkeley Chancellor Robert Birgeneau who cited and praised Papalexopoulos' tremendous contribution to the campus through his work in the cause of Nemea project. Nemea owes a great deal to Papalexopoulos' zeal for all things Nemean; we are all deeply appreciative.

Crane donated by Titan in use erecting column. (Source: Makris Report on Reconstruction 2007)

Dust Recovery System (Source: Makris Report on Reconstruction 2007)

In other news…

Nemea Night 2007 was a great success. About 250 gathered in the Chevron Auditorium of International House to learn about and celebrate the past year's work at Nemea. Those successes and challenges were detailed in last month's *LionBytes* as well as in Director Kim Shelton's annual letter to supporters sent out in October. Many old friends and supporters were on hand for Kim's presentation and for the delightful Nemean wine and Greek nibbles afterwards. We were especially pleased to have with us the Consul General of Greece in San Francisco, the Honorable Xenia Stefanidou.

The Honorable Xenia Stefanidou with Director Kim Shelton