

Date of Application  
13 February 1974

Application for Research Support on  
Types and Causes of Large-scale  
Calcinated Deposits Covering Ancient Settlements of Turkey

To: The American Research Institute in Turkey  
1155 East 58th Street, Chicago, Ill., 60637

From: Professor Alfred de Grazia, Professor of Social Theory  
in Government, 504 Rufus Smith Hall, New York University,  
New York, N.Y. 10003.

Summary Statement

The Applicant, Professor Alfred de Grazia, seeks assistance to visit exposed archaeological sites, to interview excavation heads and other informed persons, to consult with scholars, and to visit archives in Turkey respecting the extent of and the characteristic composition of ash layers in the debris of a number of ancient settlements in Asia Minor. He aims to pursue and supplement or amend accepted explanations of the causes and composition of calcination intruding between layers of human occupation of sites, and to contribute to the scarce literature in these regards. The Applicant will not engage in formal surveys nor will he engage in digging. Support is requested for the nine-week period extending from August 12 to October 13, 1974.

Details enumerated  
as requested.

1. The Applicant's addresses and phone numbers are:

4-5. office: Professor Alfred de Grazia  
Department of Politics  
504 Rufus Smith Hall  
New York University, NY, NY 10003  
(phone 5983277)  
resid.: 2 Washington Square Village 11B  
New York, NY 10012  
(phone 777-5362)

6. Professor of Social Theory in Government.

7. Birth date: December 29, 1919

. Citizenship: U.S.A. (born in Chicago, Illinois)

.. Married.

8. Passport number C26-15917. Expires November 20, 1977.
9. Applicant will be accompanied by his wife, Professor Nina Mavridis de Grazia, Ph.D.
10. Applicant will depart from Naxos, Greece for Ismir, August 12, 1974.
11. Applicant will return to Athens on October 13, 1974.
12. A total of nine weeks will be spent in Turkey. As many sites will be visited during the time period as possible. A minimum of seven sites is contemplated. The itinerary is listed in the budget. Depending upon the fuel situation, the Applicant proposes to utilize a jeep that he will have in readiness at Athens, following upon similar work undertaken in Greece. This is a 4-wheel drive, 6-cylinder, winch-equipped vehicle.
13. A sabbatical leave for the academic year <sup>1974-</sup>1975 is expected. Because of heavy fixed obligations, no funds can be spared from his reduced salary for the proposed work. Nor have other funds been granted nor can New York University supply assistance.
- 14,15. The accompanying biographical statement (reproduced here) provides a summary of the Applicant's educational and professional experience. He has visited Turkey on five occasions between the years 1960 and 1969, and has delivered lectures at the University of Istanbul and the University of the Bosphorus. These visits were of a personal nature, and on university research, and as an economic development consultant.

The Applicant has recently completed a manuscript on natural disasters and social change in Homeric times. This is presently being considered for publication. In the course of work on this book, the Applicant encountered some of the perplexing problems that furnish the theme for the proposed research. He will spend the summer in Greece working on the subject. In early June he will participate in a conference at York University, Canada, on ancient natural disasters and their effects. There he will also speak on problems in the transmission of records of human catastrophe and the development and social uses of myth. The Applicant is now consulting with experts on calcination in various fields of geology, geophysics, chemistry, pyrolysis, and archaeology in an effort to come abreast of the state of the art and to determine what kinds of testing might be done and how to do them in the laboratory and under field conditions.

16. The Applicant does not speak or read Turkish. His wife commands a slight knowledge from childhood. Between them, they speak and read well in French, German, Greek, Italian and read Latin. Friends in Turkey can be counted upon for necessary arrangements for oral or written translation, as well as for some introductions and chemical testing facilities.

17. The Applicant has asked four persons to address the ARIT concerning his ability to carry out the proposed research. They are:

1. Professor Kenim T. Erim, Professor of Classics and Director of New York University archaeological operations at Aphrodisias.

2. Professor Cyrus Gordon, formerly Director of Near East studies at Brandeis University and now Distinguished Professor at New York University.

3. Professor Livio Stecchini, Historian of Science and Ancient History, Paterson State College, Paterson-Wayne, New Jersey.

4. Mr. John Gnaedinger, Engineer, President, Soil Testing Services, 111 Pfingsten Road, Northbrook, Ill. 60062.

18. Title of Project: Types and Causes of Large-scale Calcinated Deposits Covering Ancient Settlements of Turkey.

19. Statement of Project: Attached are 1) a brief statement of the project (exhibit A) and 2) a memorandum of the Applicant on Hissarlik (Troy) that exhibits the kind of problem that has prompted the present research interest (exhibit B). 3) A budget for the initial work in Turkey follows here:

Budget:

Time period: Nine weeks, August 12 to October 13, 1974.

a. Travel by ship, Naxos to Ismir, 2 passengers, and vehicle.	\$132.00
b. Fuel, insurance and maintenance of vehicle (Stopover and work areas planned include Ismir, Aphrodisias, Tarsus, Caesarea, Ankara, Samsun, Istanbul, Hissarlik, and return to Athens: est. 2400 kms.)	340.00
c. Accommodations (\$6 per night average for 2)	378.00
d. Subsistence (\$7 average daily for 2 persons)	441.00
e. Communications	50.00
f. Site photography (\$32 per site @ 7)	224.00
g. Maps, documents, copies	30.00
h. Reports of soil tests made by authorized excavation authorities in Turkey (12 @ \$20)	240.00
i. Incidentals and contingency	50.00
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Total support sought	\$1885.00

Exhibit A

BRIEF STATEMENT OF PROJECT

My interest in social theory has led me backwards into prehistoric and ancient times in search of the conditions that caused substantial modifications of human nature. The three principal thrusts go towards a) the origins of political institutions, b) the origins of myth, and c) the origins of collective fear, which F. Nietzsche, for example, regards as the source of human memory itself. In recent years, increasing attention has been given to the role of natural catastrophes in the determination of human nature and institutions. Although Whiston, Cuvier, Buffon, Boulanger, La Place, and even Newton considered and supported such hypotheses long ago, more recently X. Kugler, Claude Schaeffer, and I. Velikovsky have come to stress the role of catastrophes in the rise and fall of ancient civilizations.

Attempting, as has been my habit, to accompany whatever theoretical research I may be engaged in by empirical and field research, I have been struck by the paucity of certain kinds of evidence in the reporting of ancient history and archaeology. One sort of evidence has to do with the ashes that cover or infiltrate ancient settlements. Numerous reports describe the presence of layers and deposits of calcinated materials together with signs of fierce and widespread conflagration. Yet rarely do these ashes and other incendiary evidence receive close attention. Rather, the typical report introduces the facile explanation that an invader burned the settlement to the ground.

To exemplify some puzzling aspects of ancient calcination, I have attached an analysis (exhibit B) of some salient passages from Schliemann's famous book on his excavations at Hissarlik. Schliemann is of course not the latest word on the subject, but the problem is displayed there in its original form. I have noted the same kind of puzzles in Yucatan, Tuscany, Greece, Pakistan, and India.

Consequently, I have decided to pursue this empirical matter farther, and have begun to educate myself concerning the nature and types of fire and ashes, the thermal properties of materials, and the methods of analyzing calcinated earth under field conditions and in the laboratory.

Turkey contains perhaps the world's most numerous aggregate of pertinent sites. The objective of a first field trip would be to consult on site with directors and overseers of excavations and to inspect visually the apparent ash deposits. Since I do not intend at this stage to dig, I shall have to rely upon the accounts of those who have dug at a site in the past or who are doing so now, and upon what they report as to the consistency, coloring, extent, density, and location of the material. If

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the site directors or overseers are in a position on their own authority to perform any soil sampling and chemical testing, I should be able to assist them and have the material tested at *my project's expense*. *It is for this reason that a small sum is provided for soil testings in the budget.*

Professor Schaeffer reports heavy levels of ashes almost everywhere in the Near and Middle East. If a site is observed to lack calcinated major deposits in the period extending from 700 B.C. back to neolithic times, this in itself would be a significant *confirmation of the null hypothesis*. *If the deposits vary in type, this would enable us to begin a scientific classification of calcination. If at a certain level ash is present everywhere, in mega-deposits, and is of the same type, this too would be a significant finding. And if ash levels correlated by type and age, and co-varied similarly, despite being separated by large distances, this again would be a finding of significance. In sum, there seems to be reason to expect to report discoveries of some general interest to archaeology and other sciences.*