

Appendix D

The Gove/Harbottle Proposal on Carbon Dating
the Shroud

THE UNIVERSITY OF ROCHESTER
RIVER CAMPUS STATION
ROCHESTER, NEW YORK 14627

DEPARTMENT OF PHYSICS
AND ASTRONOMY

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The Rev. Dr. R. H. Dinagar
2317 46th Street
Los Alamos, N.M. 87544

Dear Bob:

You will have now received my letter of April 30, 1979 which included copies of the letter I sent to the Archbishop of Turin on behalf of the Rochester Group (University of Rochester, University of Toronto, General Ionex Corporation and the U.S. Geological Survey) and the Brookhaven National Laboratory group along with a description of the procedures that would be followed to date a Shroud sample by the two groups independently. Since then Dr. Meyer Rubin (USGS) and I have met with Drs. G. Harbottle and R. W. Stoenner (BNL) to agree on other details of how we would proceed with the radiocarbon dating of a Shroud sample.

We would propose to use *half* of the Raes' sample taken six years ago from the *main body* of the Shroud. It is our understanding that this piece of the cloth weighs approximately 110 milligrams. Half of this cloth (55 mg) will be divided between the BNL group and the Rochester group as shown in the table below

	Cloth Wt (mg)	Ratio $\frac{\text{Carbon}}{\text{cloth}}$	Carbon Wt (mg)
BNL	30	0.40	12.0
Rochester	25	0.25	6.3

Both groups would independently follow the pre-treatment method described by Harbottle et al in the documentation I sent you. Following this the BNL group would convert the sample to CO₂ as described on pages 4 and 5 of their paper 'Carbon 14 Dating of Small Samples by

