

# Red River Valley Local Section American Chemical Society

## Next Meeting

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**Monday, 9 February 2009 in Fargo**

Speaker : **Mary Virginia Orna**, College of New Rochelle

Location: NDSU Research & Tech Park Research 1, Room **202**.

- ▲ 17:00 - 17:30 Social gathering:  
5:00 - 5:30 PM
- ▲ 17:30 - 18:35 Presentation:  
5:30 - 6:45 PM
- 19:00 Dinner: CATERED Buffet at Research 1. ~ \$12.  
7:00 PM Leonard Cook suggests "Steak and Lobster"
- ▲ *Executive Committee meeting to follow.*

### ***Speaker's presentation:***

#### ● Doing Chemistry at the Art/Archaeology Interface.

The archaeological chemical rewards of spending a sabbatical year in Israel and Italy will be discussed along with modern methods used to examine both ancient and modern artifacts. The archaeological work in Israel involved analysis of ancient pigments and dyes found on excavated materials from caves in the Judean desert and the ancient fortress of Masada. Textiles from the "Cave of the Warrior" were examined from their pigment content. The work in Italy involved examination of medieval artists' manuals for recipes for blue pigments, which were then carried out and characterized, with some surprising results. Additional applications of the methods of archaeological chemistry to such famous artifacts as the forgeries of Han van Meegeran and the Shroud of Turin will be discussed, including some evidence that the radiocarbon date of the shroud may not be valid because of fire damage it experienced by the Shroud in 1532. Pros and cons will be discussed.



#### ● **Biographical Sketch.**

Sister Mary Virginia Orna, O.S.U. (Order of Saint Ursula) is professor of chemistry at the College of New Rochelle and Editor-at-Large, Chemical Heritage magazine. She has lectured and published widely in the areas of color chemistry and archaeological chemistry. She is active in several divisions of the American Chemical Society, having served as chair of the History and Chemical Education Divisions. She is a recipient of the following major awards: the 1984 CMA Catalyst Award for