COLUMBIA UNIVERSITY
GRADUATE SCHOOL OF ARCHITECTURE,
PLANNING AND PRESERVATION
FALL TERM, 2014
A6768 CONSERVATION SEMINAR; METALS.

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COURSE DESCRIPTION
This seminar reviews the structural and decorative uses of metals in buildings and monuments. The metals to be reviewed include iron and steel; copper and copper alloys including bronze and brass; lead; tin; zinc; aluminum; nickel and chromium. The seminar will examine the history of manufacture and use; mechanisms of deterioration and corrosion; and cleaning, repair, and conservation.

COURSE REQUIREMENTS
As a mid-term assignment course participants will:

1. Individually prepare an annotated bibliography on any aspect of architectural metals (history, manufacture, use, or conservation) **OR**
2. Work in a group to prepare a metals walking tour of a NYC neighborhood **OR**
3. Work in a group to organize and label sheet metal samples on metals board in the lab.

A take home final exam will emphasize mechanisms of deterioration and methodology of repair.

COURSE OUTLINE

Week 1.	4 September. Introduction to metals: nature and manufacture, deterioration and corrosion processes; the electromotive series; methods of protection; corrosion terminology.
Week 2.	11 September. Iron and steel; history of manufacture and use.
Week 3.	18 September. Iron and steel; deterioration and conservation.
Week 4.	25 September. Field Trip: Metallizing
Week 5.	2 October. Zinc
Week 6.	9 October. Copper and copper alloys.
Week 7.	16 October. Field Trip: Michigan Ornamental Metals and Hoboken Terminal
Week 8.	23 October. Lead and Tin.
Week 9.	30 October. Field Trip: Iron Casting (Conflict with APT Quebec City?)
Week 10.	6 November. Nickel, Chromium, Aluminum
Week 11.	13 November. Field trip: "GE" Building, Rock Center, Top of the Rock
Week 12.	20 November. Guest speaker: Joe Sembrat of Conservation Solutions.
Week 13.	27 November. Thanksgiving (No class)
Week 14.	4 December. Course review. Current conservation problems and projects.