COLUMBIA UNIVERSITY
GRADUATE SCHOOL OF ARCHITECTURE,
PLANNING AND PRESERVATION
FALL TERM, 2017
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**

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

COURSE OUTLINE

Week 1.	7 September. Introduction to metals: nature and manufacture, deterioration and corrosion processes; the electromotive series; methods of protection; corrosion terminology.
Week 2.	14 September. Iron and steel; history of manufacture and use.
	(15 September Field Trip, Central Park, cast and wrought iron)
Week 3.	21 September. Iron and steel; deterioration and conservation.
Week 4.	28 September. Zinc
Week 5.	5 October. NO CLASS. Students travelling for Studio 3
Week 6.	12 October. NO CLASS. Students travelling for Studio 3
Week 7.	19 October. Field Trip: Michigan Ornamental Metals and Hoboken Terminal
	(20 October. Copper and copper alloys.)
Week 8.	26 October. Lead and Tin.
Week 9.	2 November. Field Trip: Hot dip galvanizing
Week 10.	9 November. Nickel, Chromium, Aluminum
Week 11.	16 November. Field trip: “GE” Building,Waldorf, Rock Center, Top of the Rock
Week 12.	23 November. Thanksgiving. No class.
Week 13.	30 November. Guest speaker. To be announced.
Week 14.	7 December. Course review. Current conservation problems and projects.