Course Syllabus

COLUMBIA UNIVERSITY GSAPP

FALL TERM, 2018

A6768 CONSERVATION SEMINAR; METALS.

Richard D. Pieper, Adjunct Associate Professor

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

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

COURSE OUTLINE

Week 1. 5 September. Introduction to metals: nature and manufacture, deterioration and corrosion processes; the electromotive series; methods of protection; corrosion terminology.

Week 2. 12 September. Iron and steel; history of manufacture and use.

(Friday 14 September Field Trip: Central Park, cast and wrought iron)

Week 3. 19 September. Iron and steel; deterioration and conservation.

Week 4. 27 September. No class (APT Buffalo)

Week 5. 3 October. No class (Second year students travelling for Studio 3?)

Week 6. 10 October. Zinc

Week 7. 17 October. Copper and Copper Alloys
Week 8. 24 October. Field Trip: Michigan Ornamental Metals and Hoboken Terminal (or 26 October Field Trip: Michigan Ornamental Metals and Hoboken Terminal)

Week 9. 31 October. Lead and Tin.

Week 10. 7 November. Nickel, Chromium, Aluminum

Week 11. 14 November. Field trip: "GE" Building, Waldorf, Rock Center, Top of the Rock

Week 12. 21 November. Thanksgiving break. No class.

Week 13. 28 November. Guest speaker. To be announced.

Week 14. 5 December. Course review. Current conservation problems and projects.