

A6784

Brick Terra Cotta & Stone

Spring 2014

Tuesdays 1:30-4:00 pm

655 Schermerhorn Extension

Norman Weiss, Dan Allen and George Wheeler

Summary

This course explores the group of traditional masonry materials--brick, terra cotta and stone. The format includes lectures, demonstrations and field trips. The goals of the course are to provide: 1) an historical overview of their manufacturing and sourcing as architectural materials with a focus on the 18th century to the present; 2) an understanding of their fundamental material properties in relation to their use and deterioration in a range of masonry construction systems; and 3) an exploration means and methods of their repair, maintenance, and conservation.

Schedule

21 January	Lecture: classification & characteristics of building stone
28 January	Lecture: ceramic science; basic properties of brick and terra cotta
4 February	Lecture: deterioration of inorganic porous materials (brick, terra cotta & stone)
11 February	Field trip: Allan Gilbert, Fordham University brick collections
18 February	Lecture: historical overview of the use of brick
25 February	Lecture: historical overview of the use of terra cotta
4 March	Lecture: production of terra cotta
11 March	Lecture: repair strategies for terra cotta

17-21 March

SPRING BREAK

25 March	Lecture/demonstration: common U.S. building stones
1 April	Lecture/demonstration: consolidation and surface treatments
8 April	Lecture/demonstration: repair of stone
15 April	Field trip: Darrell Petit, Stony Creek Quarry, Branford, CT
22 April	Lecture: cleaning methods for brick, terra cotta & stone
29 April	Field trip: Kate Ottavino, A. Ottavino Corporation, Ozone Park, New York

Assignments

There will be at least one assignment and/or quiz for each material including a group assignment to augment the existing walking tour for stone on the Columbia University campus and environs.

Grading

Attendance and Class Participation 10%

Assignments/quizzes 60%

Group Assignment 30%

Readings

Posted to *CourseWorks* in the Shared Files folder