



# Technology in the Service of Plaster Conservation

## *Four Examples*

Credits for the Plaster Conservation Aspects of the Various Projects:

### Dominion Public Building, Hamilton

HPCS, Martin Weaver, Geophysics GPR International Inc.  
Norr Partnership Architects

### Library of Parliament, Ottawa,

HPCS, Spencer Higgins Architect, Paul Frame P.Eng, PWGSC

### Gould Memorial Library, Bronx New York

HPCS, Brad Casemore, Acuflow Diagnostics,  
Mark Anderson, Architect, Façade Maintenance and Design

### Red Camber, Province House, Halifax

HPCS, Robert Parker Architect, Frontline Safety - Halifax

## Example 1

## Dominion Public Building, Hamilton





## Inspecting the Plaster Adhesive



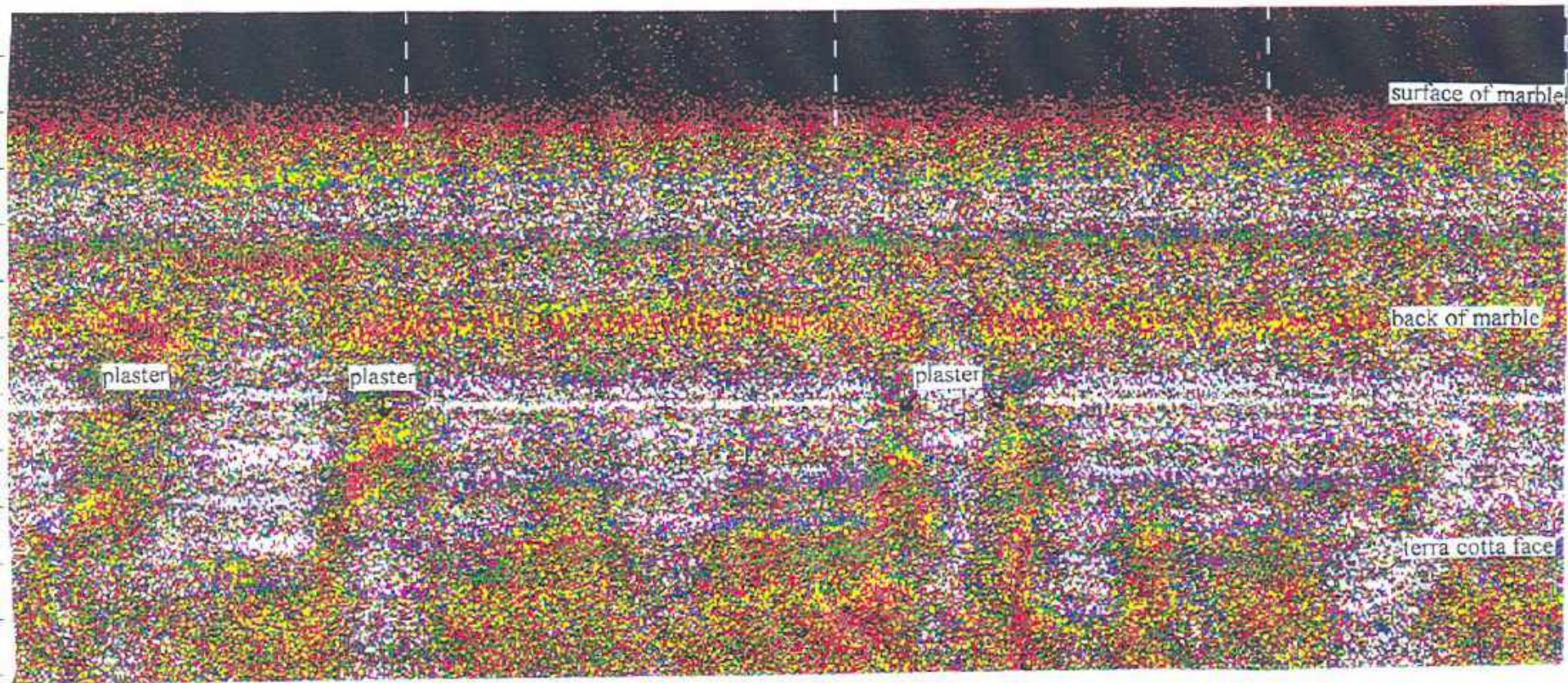


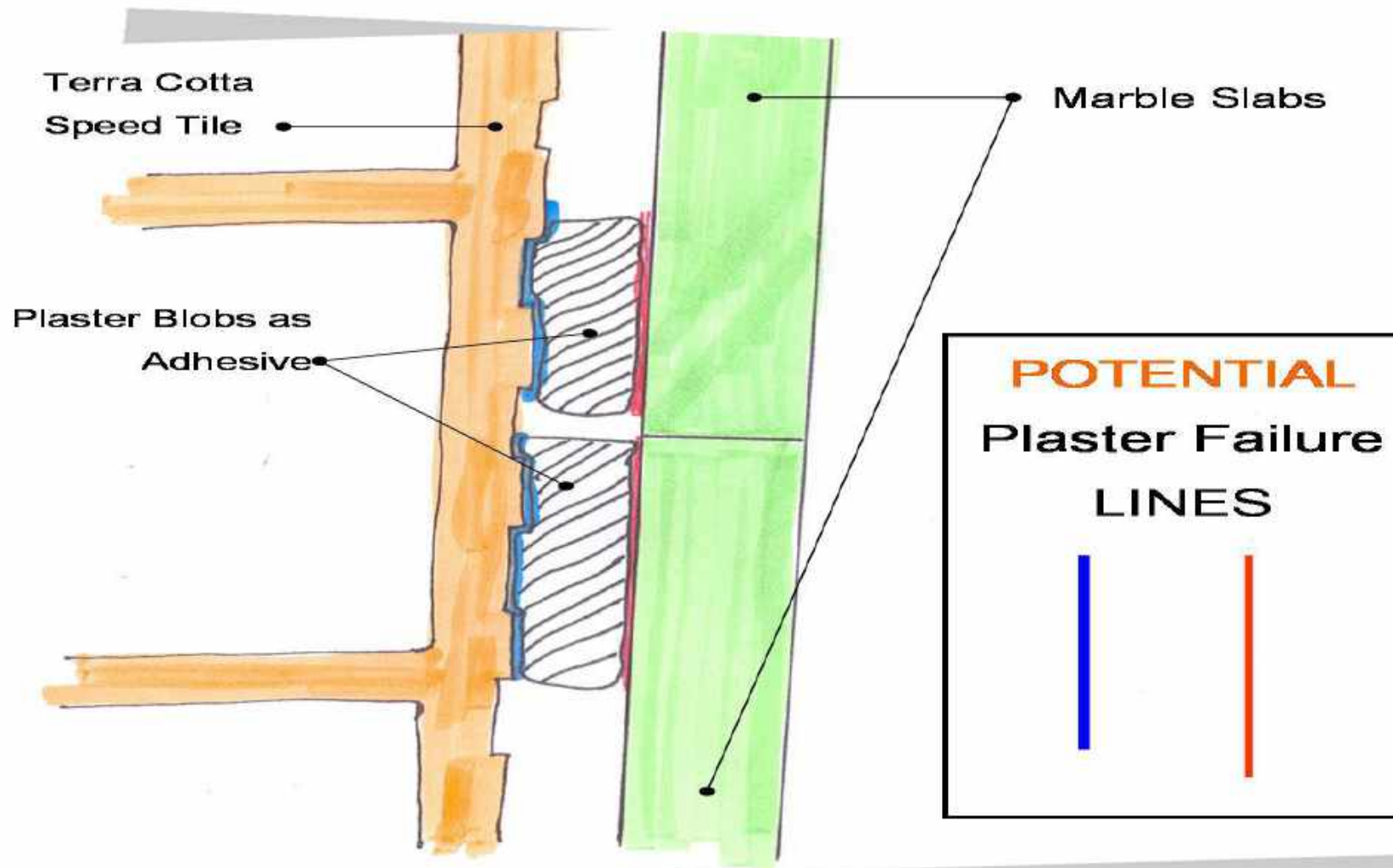
## Scanning with Miniature Radar Antenna





# Screen Grab from Ground Penetrating Radar Monitor





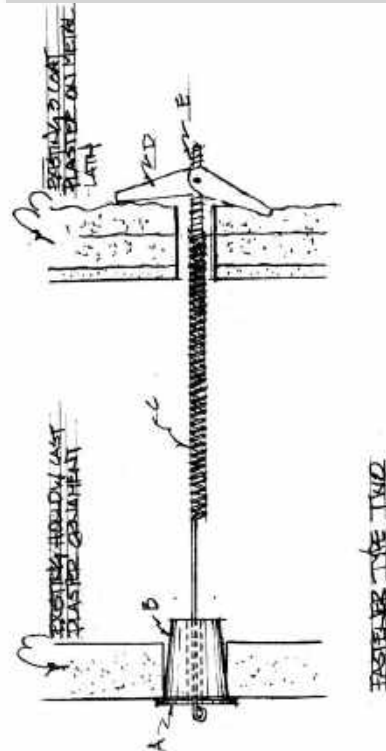
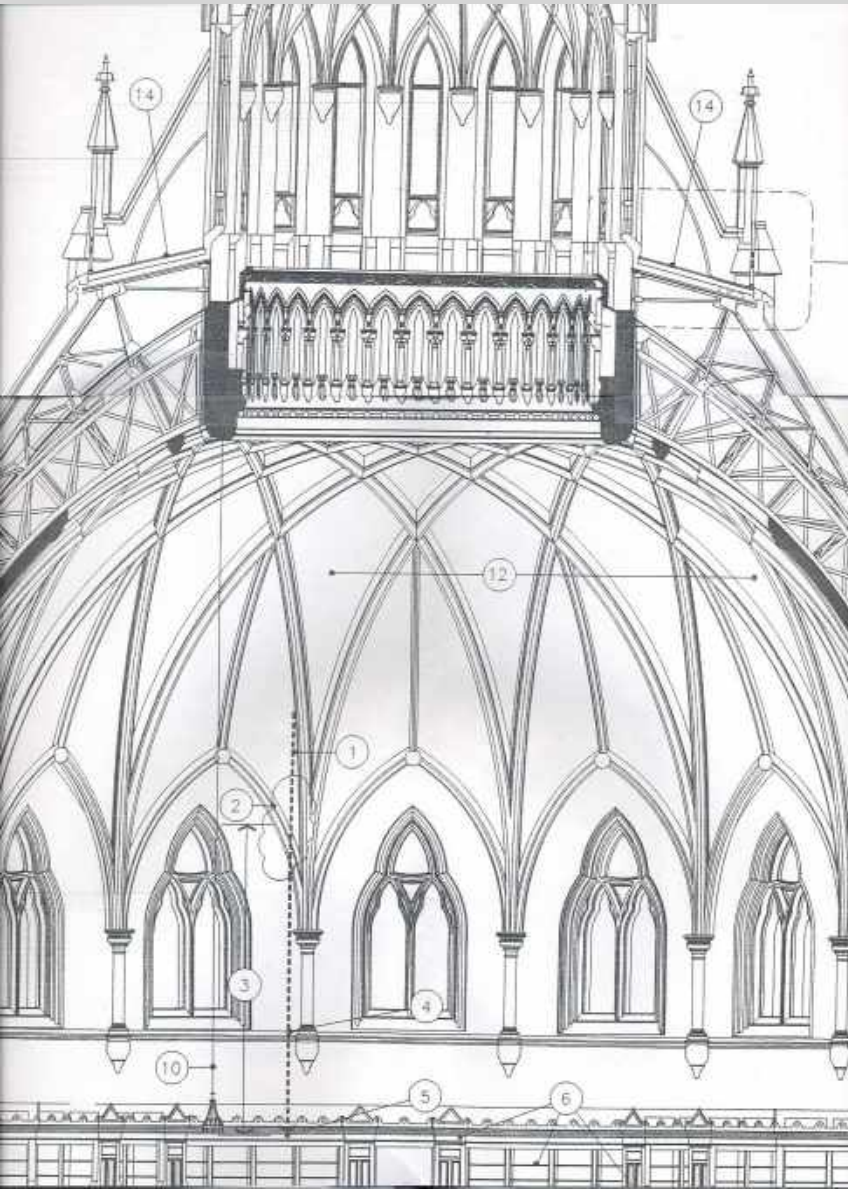
Wall Section, Dominion Public Building, Hamilton,



Full face shields are required for any type of injection work.



## Example 2 Library of Parliament, Ottawa





Two views of a typical handmade strickle used to extrude ornamental plaster: decidedly low-tech!





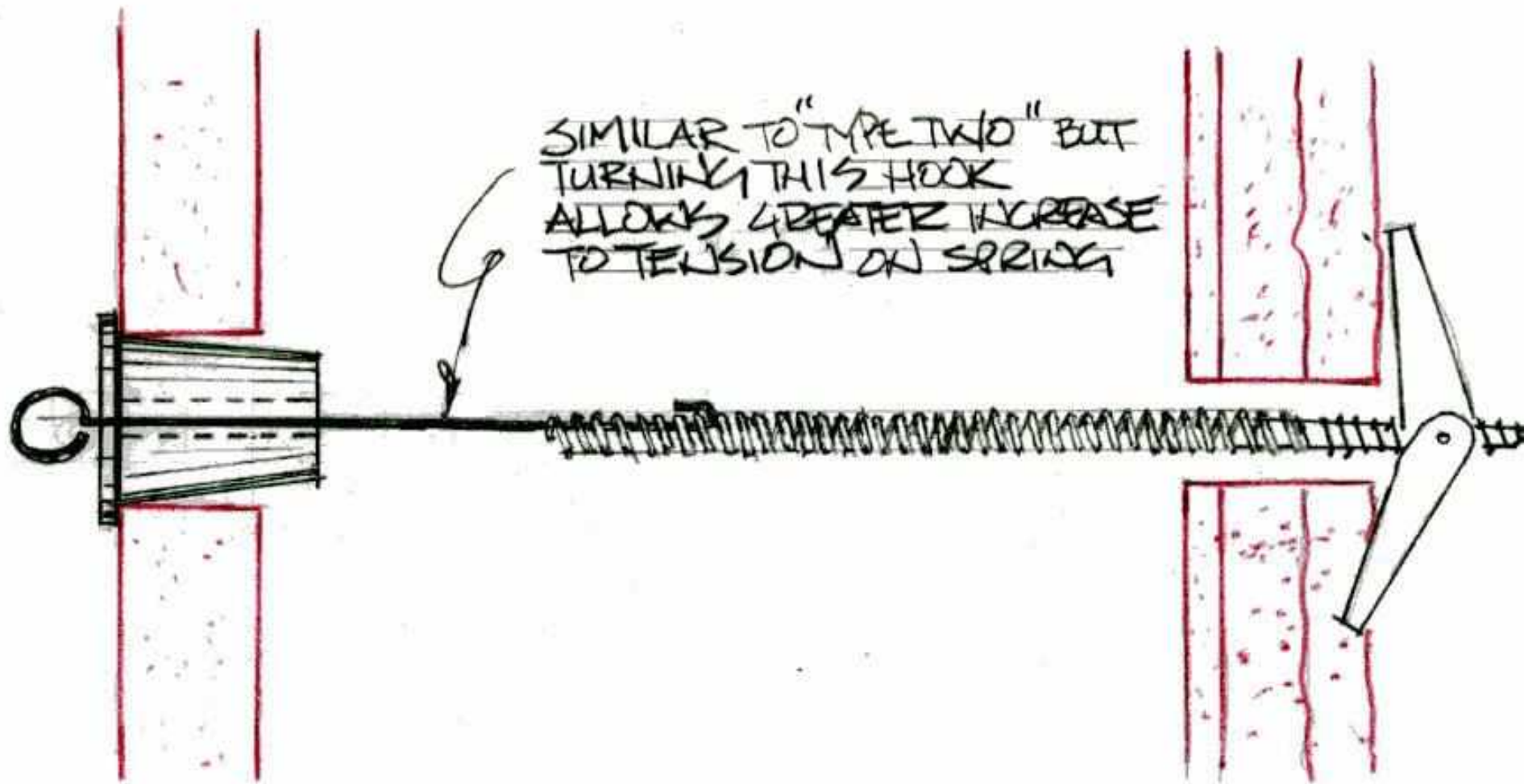
Replica ornament made for high places in public buildings can be cast in urethane. When gilded, it is indistinguishable from plaster.

All the same skills are required.

Choose between 314 gm. (11 Oz.) or 1.2 kg (2.6 lbs) for the same item cast in plaster.



## Seismic Upgrading of attached ornament at the Library of Parliament



FASTENER TYPE THREE

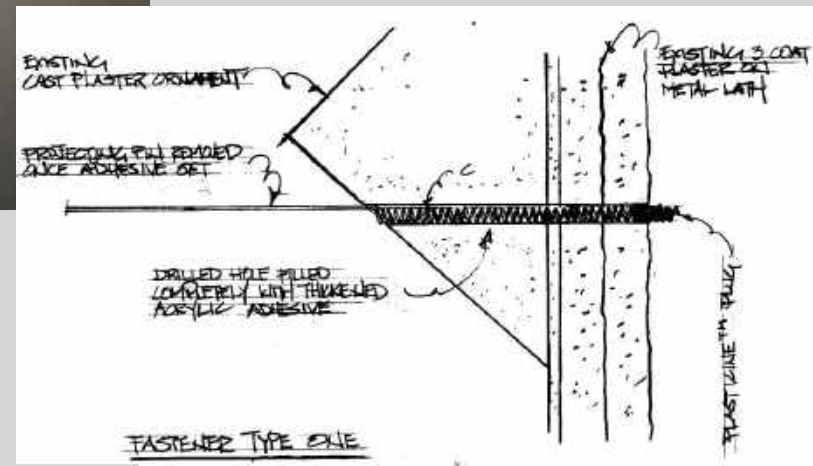
# 16 lancet windows circle the barrel beneath the upper dome



5% or 32 of these had fallen off or were about to fall.

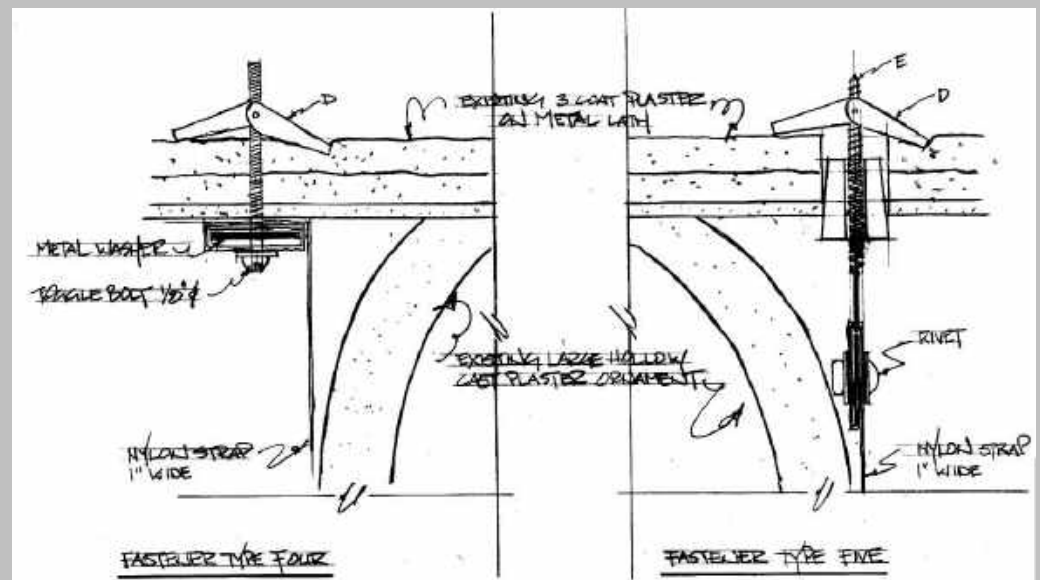


640 dogtooth ornaments decorate the 16 lancet windows

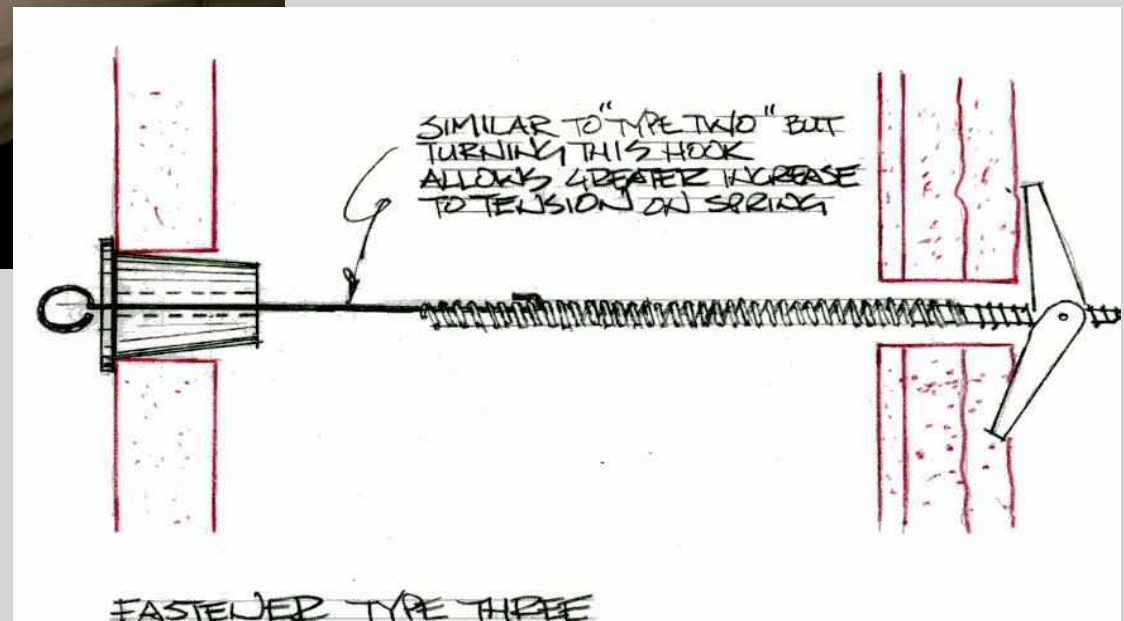
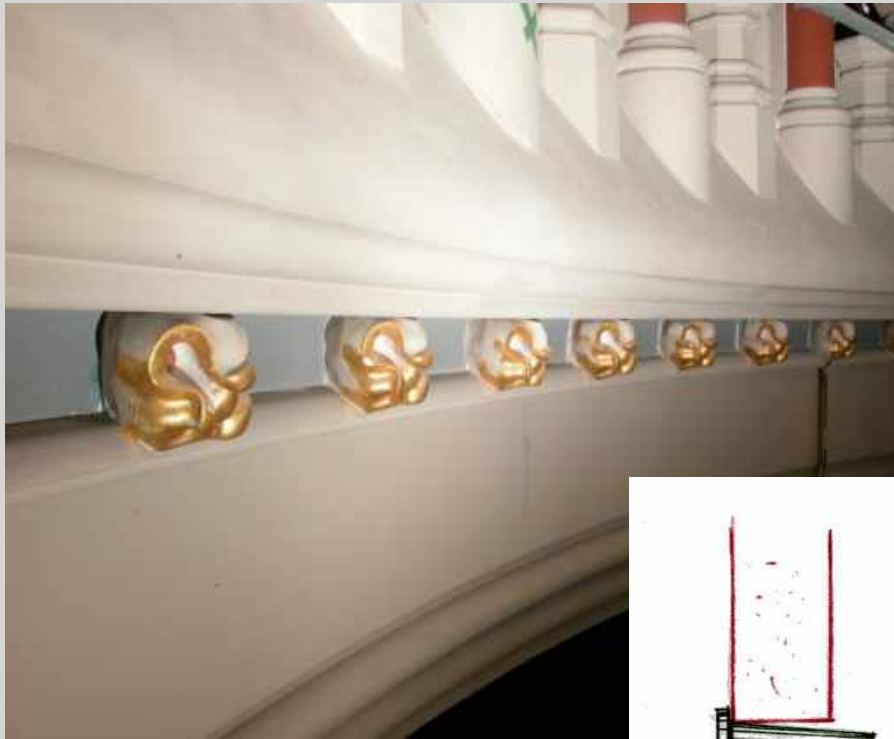




## 16 Cylindrical Column Bases surround the drum



64 gilded spheres rest on a sloped ledge like cannon balls





### Example 3

### Gould Memorial Library, Bronx Community College



Plenty of traditional plaster restoration and repair was required save the figures.







## Flexible fibre optic camera and display monitor



Advanced Test Equipment Corp © 2002



# Glitch

What talk about technology would be  
complete without one?

SORRY!

## Example 4

## Red Chamber, Province House, Halifax





## Annandale House Tillsonburg Ontario

This historic house museum has 10,000 visitors per year.  
This ceiling failed after only 10 Years of screw/washer and  
cosmetic fix repair.



# Typical Cross-section of a Wood Lath Plaster Ceiling





# Essential CONSERVATION Safety Gear from the Industrial World



Thank You