

# **Guastavino Structural Tile Vaulting in Pittsburgh**

## **Lecture 2: Material Innovations in Building Science**

**OLLI at PITT (2021.03.23)  
Matthew Schlueb, Instructor**





Oct 6 1920





CATHEDRAL OF ST. JOHN 1905

330-9

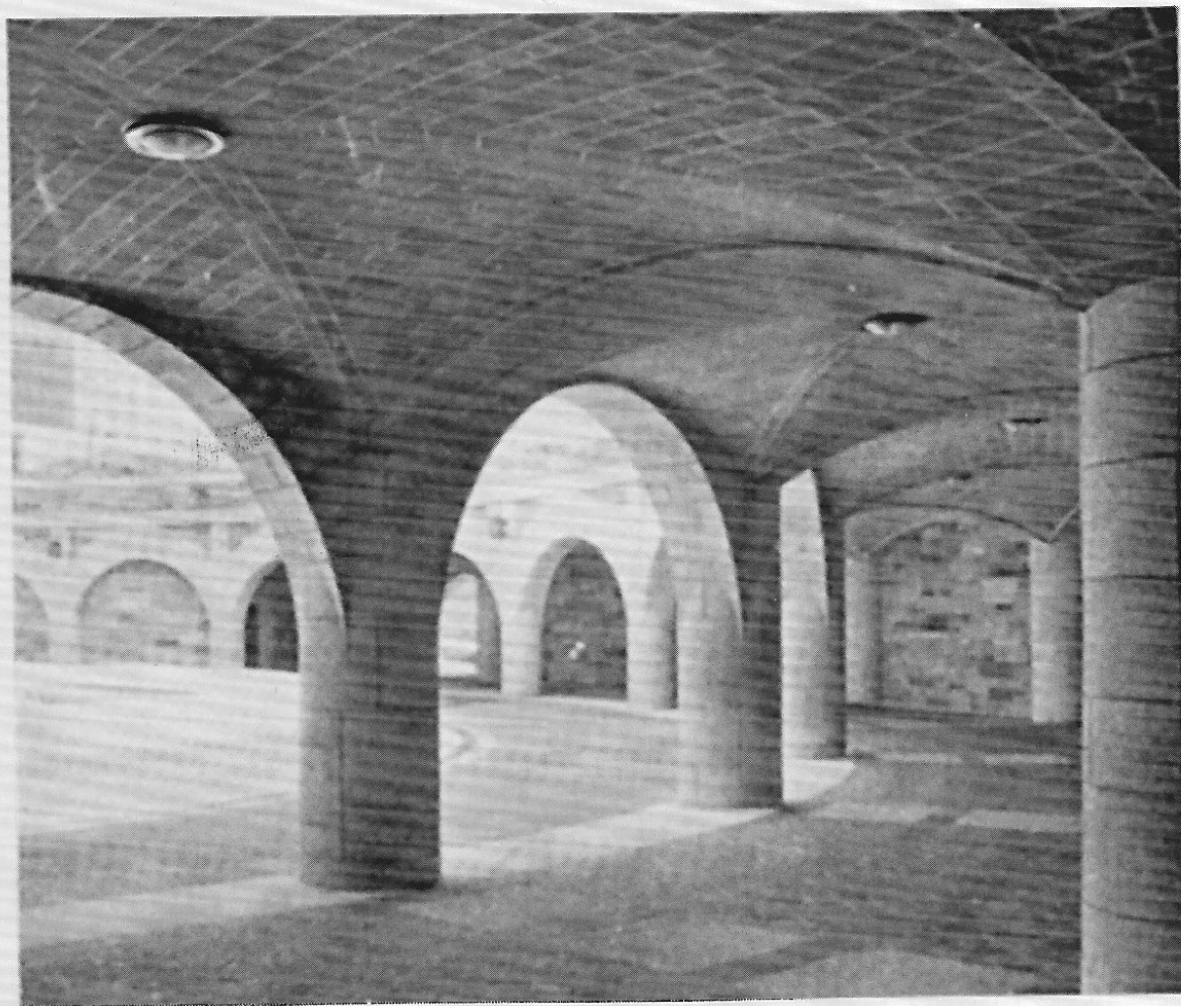




# GUASTAVINO

TIMBREL  
ARCH

# CONSTRUCTION



GUASTAVINO CONSTRUCTIVE TILE VAULTS  
HENRY HUDSON PARKWAY, NEW YORK CITY  
Madigan & Hyland, Consulting Engineers

Typical Constructive Tile ceiling with Texture Tile soffit, providing strength, light weight, permanence, economy and freedom from upkeep—

- **FIREPROOF**
- **VARIETY** of finish
- **ADAPTABLE** to any form of vaulting

Our Engineering Department will be glad to suggest the most economical adaptation of Guastavino vaults on receipt of your preliminary drawings.

*Refer to Sweet's—Catalog 40, Section 10*

**R. GUASTAVINO CO.**

**500 Fifth Ave., New York**

**40 Court St., Boston**

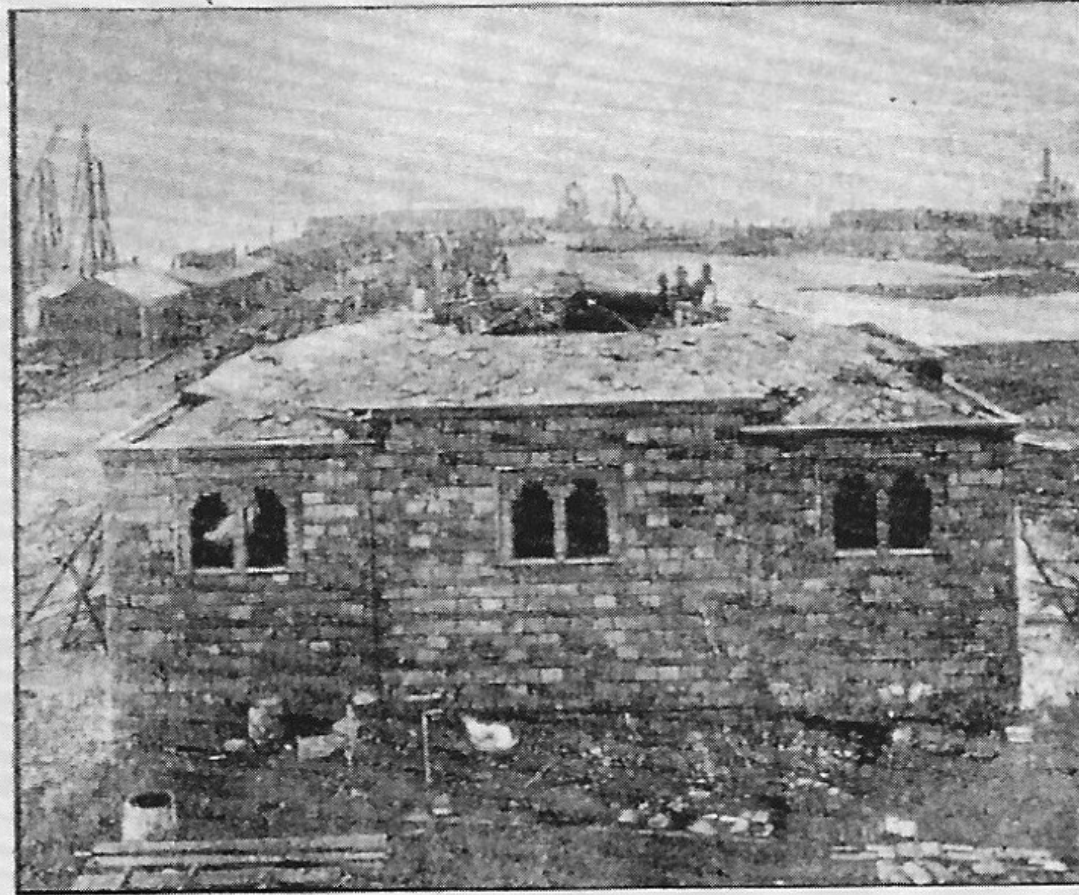


# Guastavino Fireproof Construction Co.

MAIN OFFICE, 57TH STREET, NEAR 11TH AVENUE, NEW YORK.

BOSTON, MASS.,  
PIERCE BUILDING, BACK BAY,  
TELEPHONE CALL.

PROVIDENCE, R. I.,  
SWARTS BUILDING, ROOM 42.



CHICAGO, ILL.,  
PHOENIX BUILDING.

MILWAUKEE, WIS.,  
NEW INSURANCE BUILDING.

Buildings completed or in process of construction, in which the Guastavino Fireproof Construction Company or R. Guastavino has obtained contracts, and put in Fireproofing.

**NEW YORK.**

Edison Electric Illuminating Co. Building - - - New York.  
Sun Fire Company Building - - - - - " "













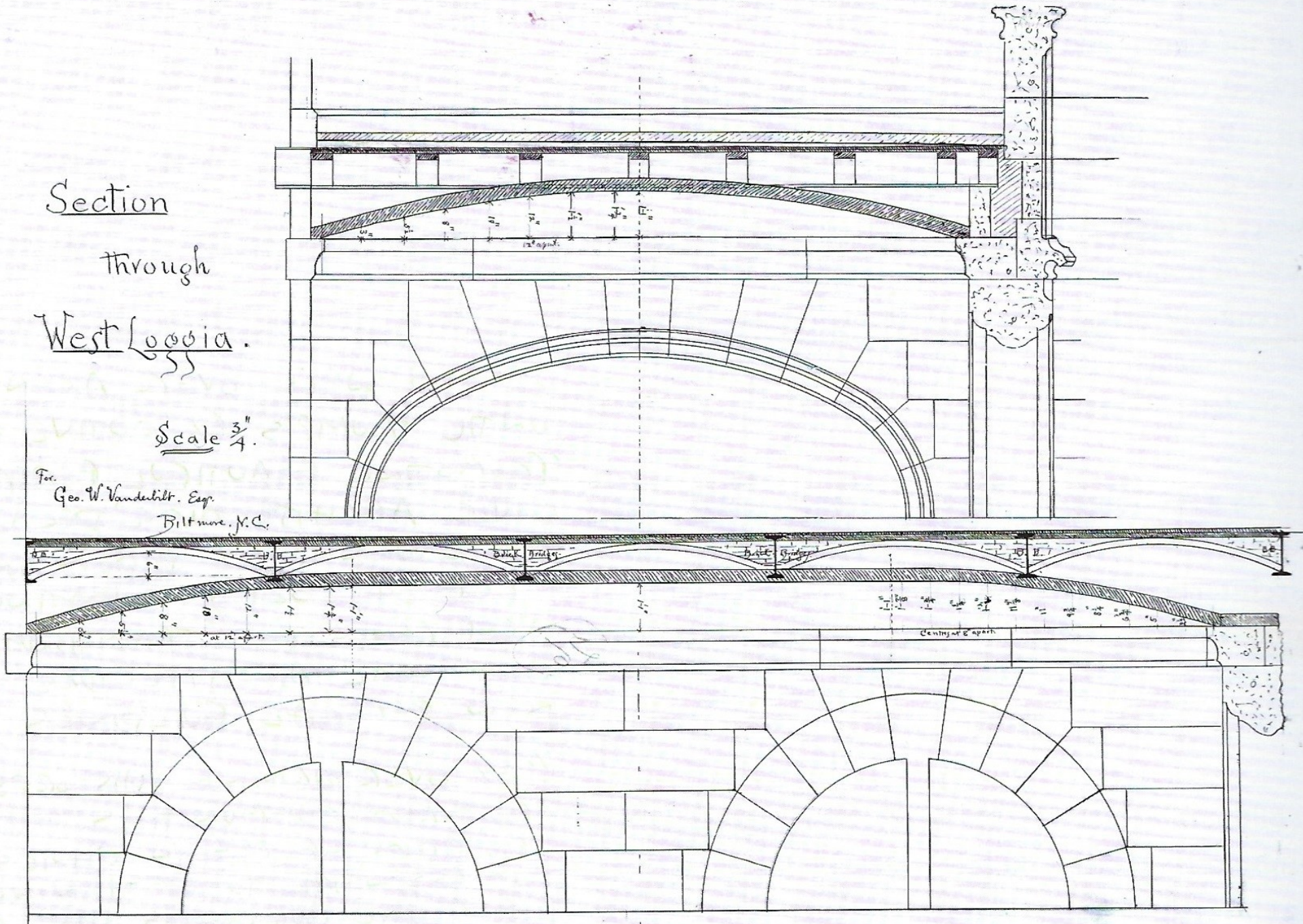




Section  
through  
West Loggia.

Scale  $\frac{3}{4}$ "

For  
Geo. W. Vandeventer, Esq.  
Baltimore, Md.





















Federal St. Bridge, looking East, Pittsburgh, Pa.







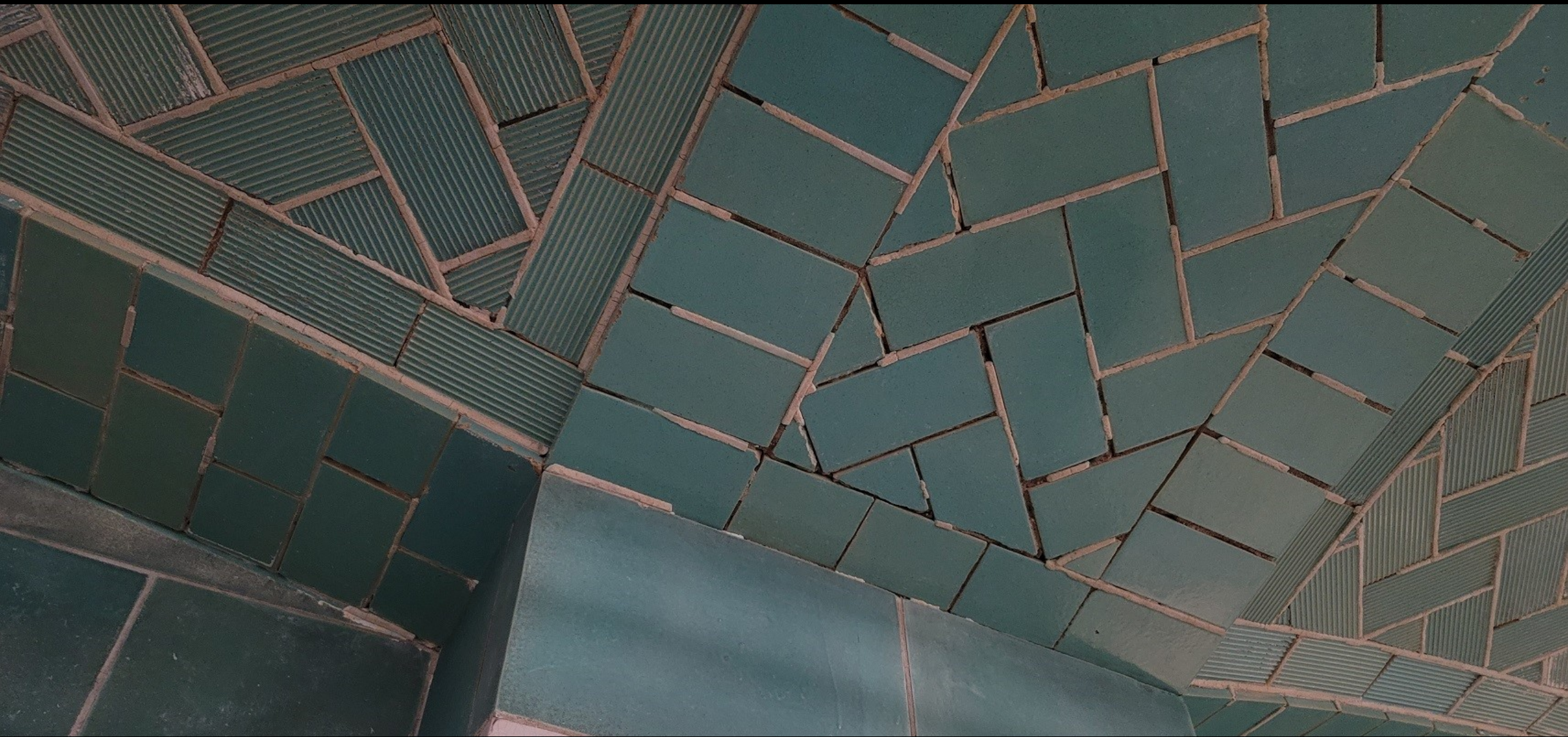
































CHATHAM UNIVERSITY 2007

COLLEGE 1920

CHATHAM COLLEGE 1920

Small informational sign in the foreground.

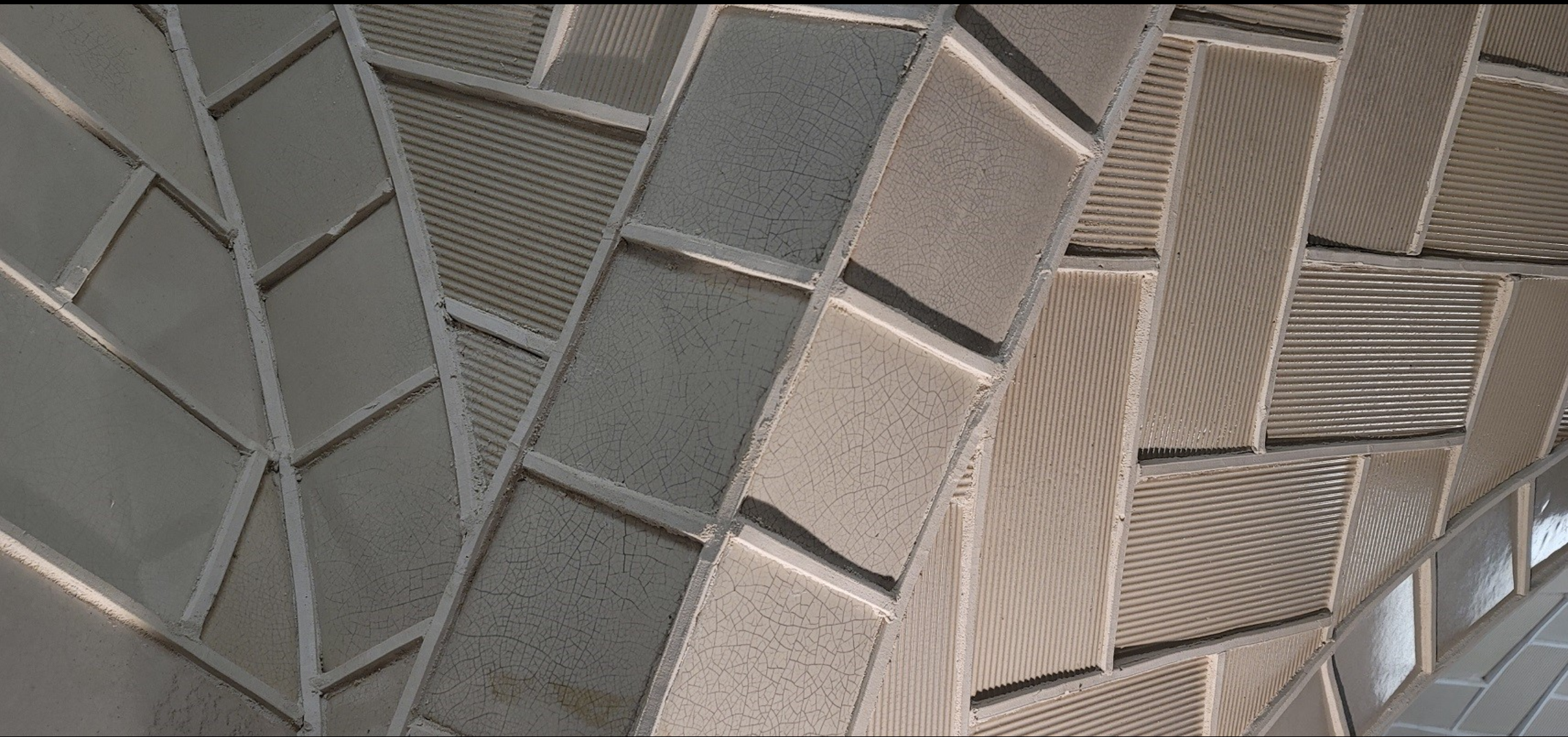


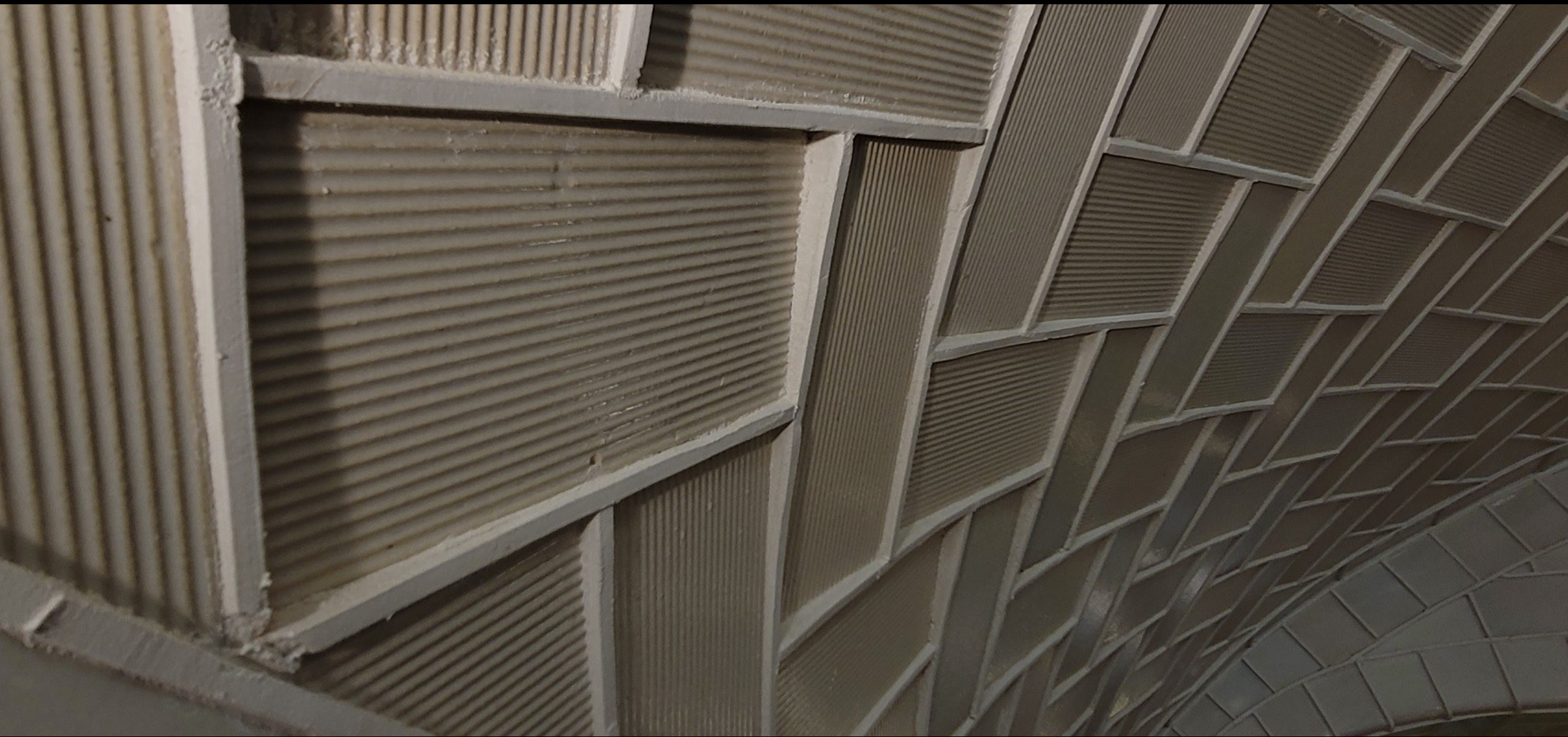
CHATHAM UNIVERSITY 2007

PENNSYLVANIA FEMALE COLLEGE 1869

CHATHAM COLLEGE 1955



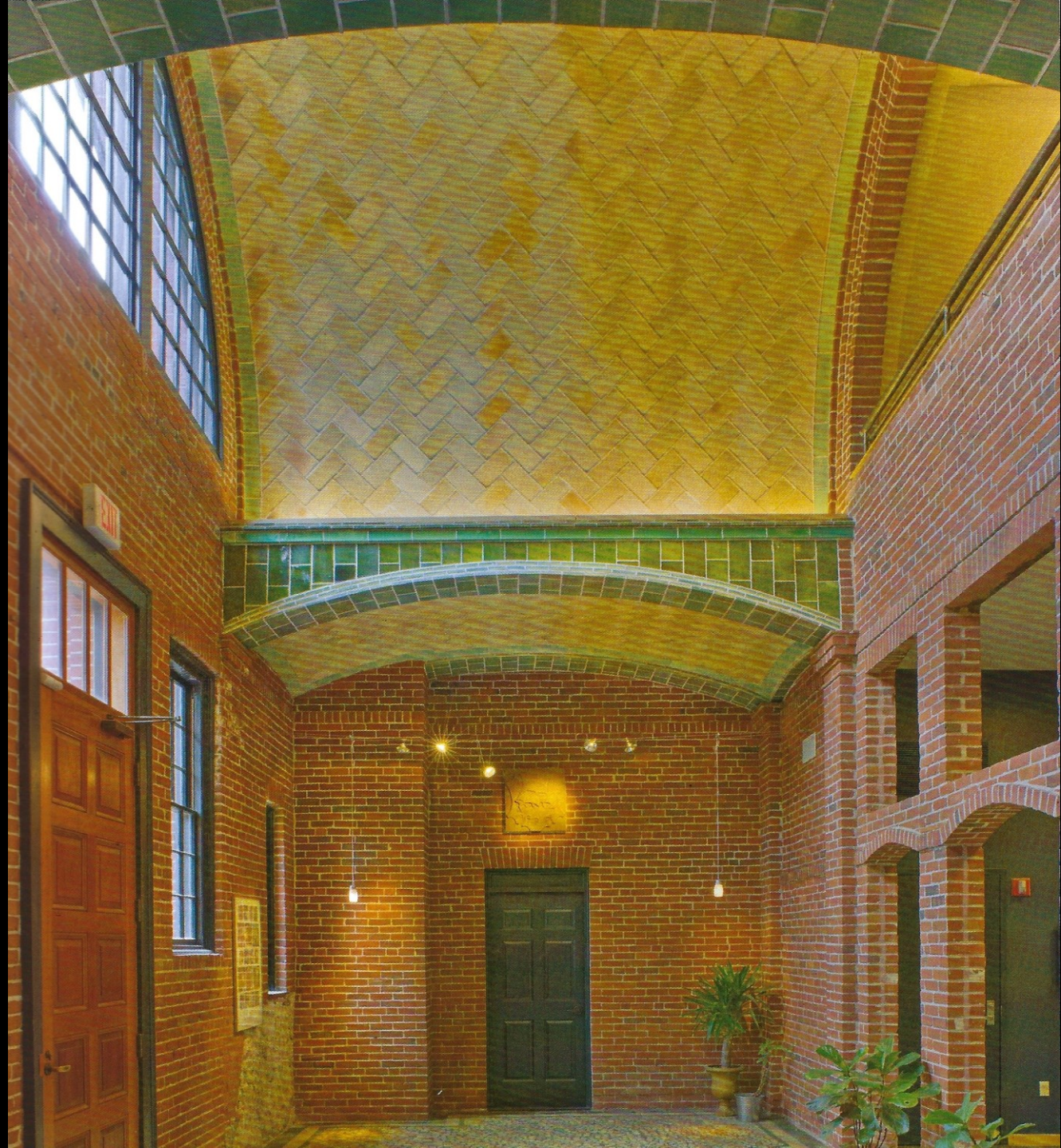








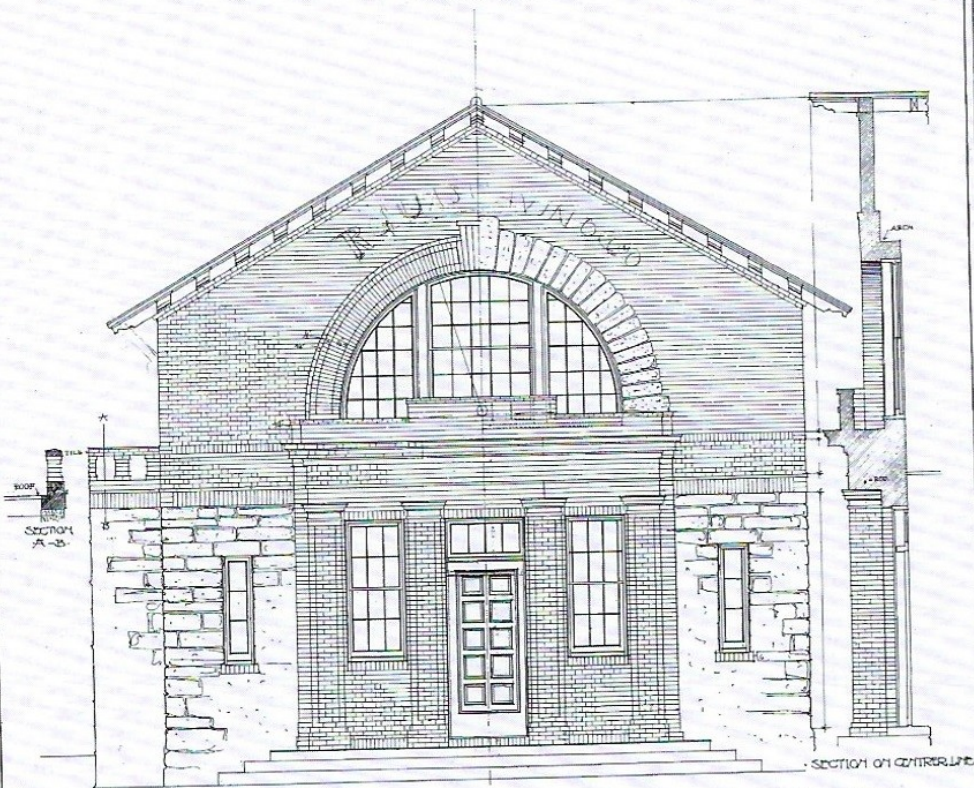




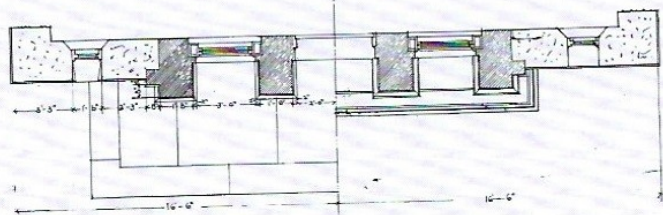
R. GUASTAVINO

1/2" SCALE DETAIL FOR MAIN ENTRANCE

FACTORY FOR THE B. GUSTAVINO CO.  
WOBURN MASS.



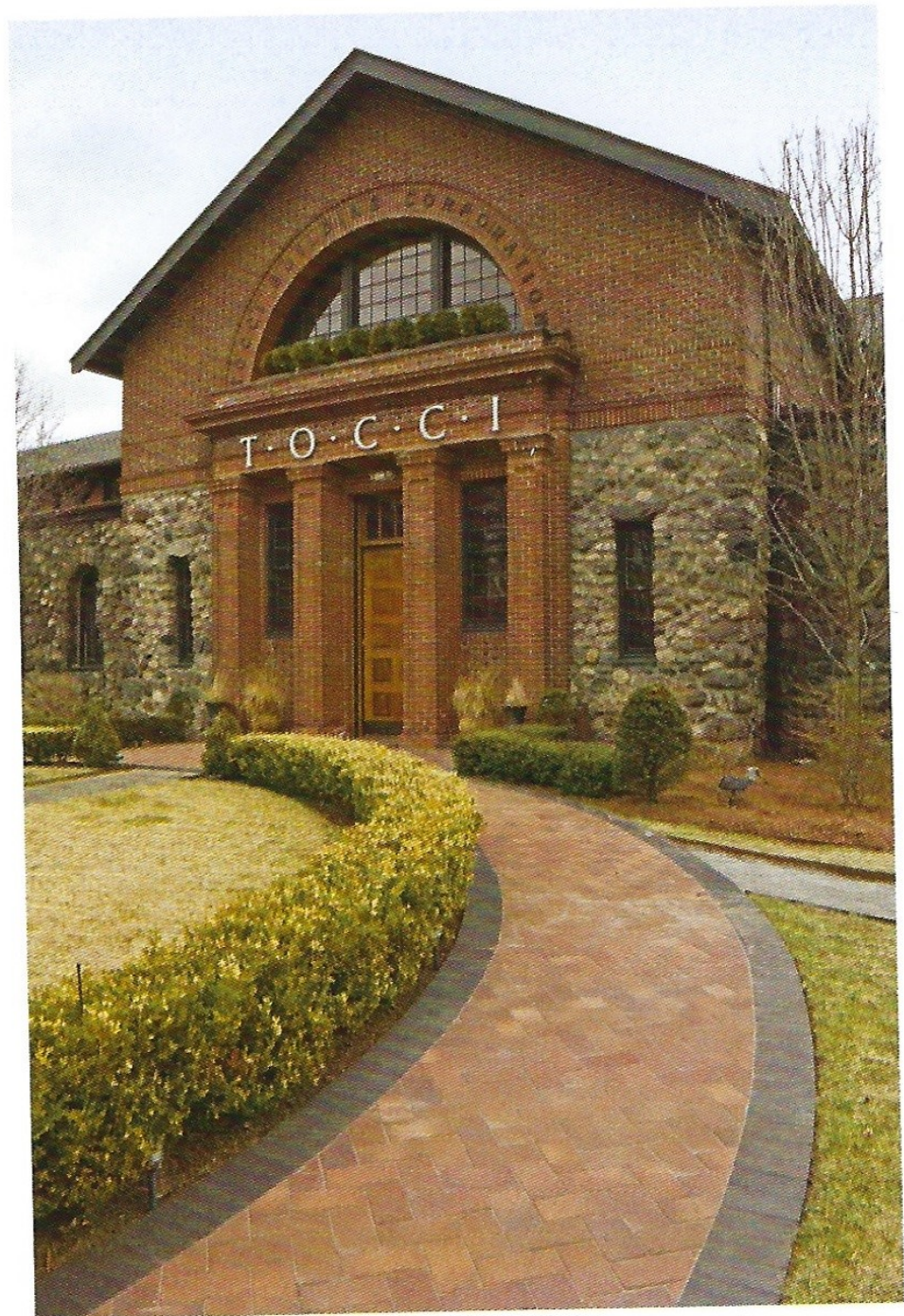
HALF ELEVATION SHOWING BRICK ARCH    HALF ELEVATION SHOWING STONE ARCH

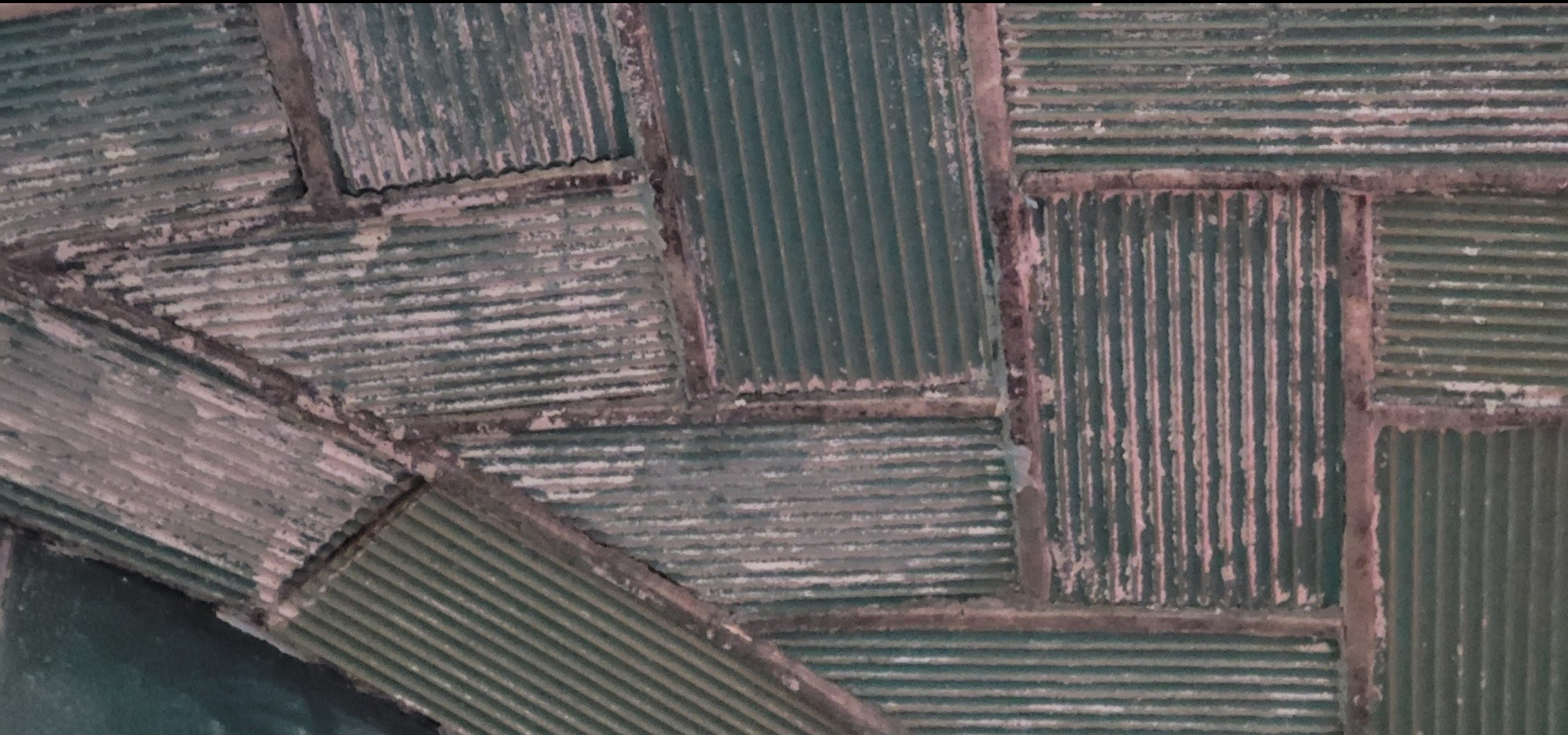


HALF PLAN LOOKING DOWN    HALF PLAN LOOKING UP

SCALE 1/2" = 1'-0"

3-2  
3-1











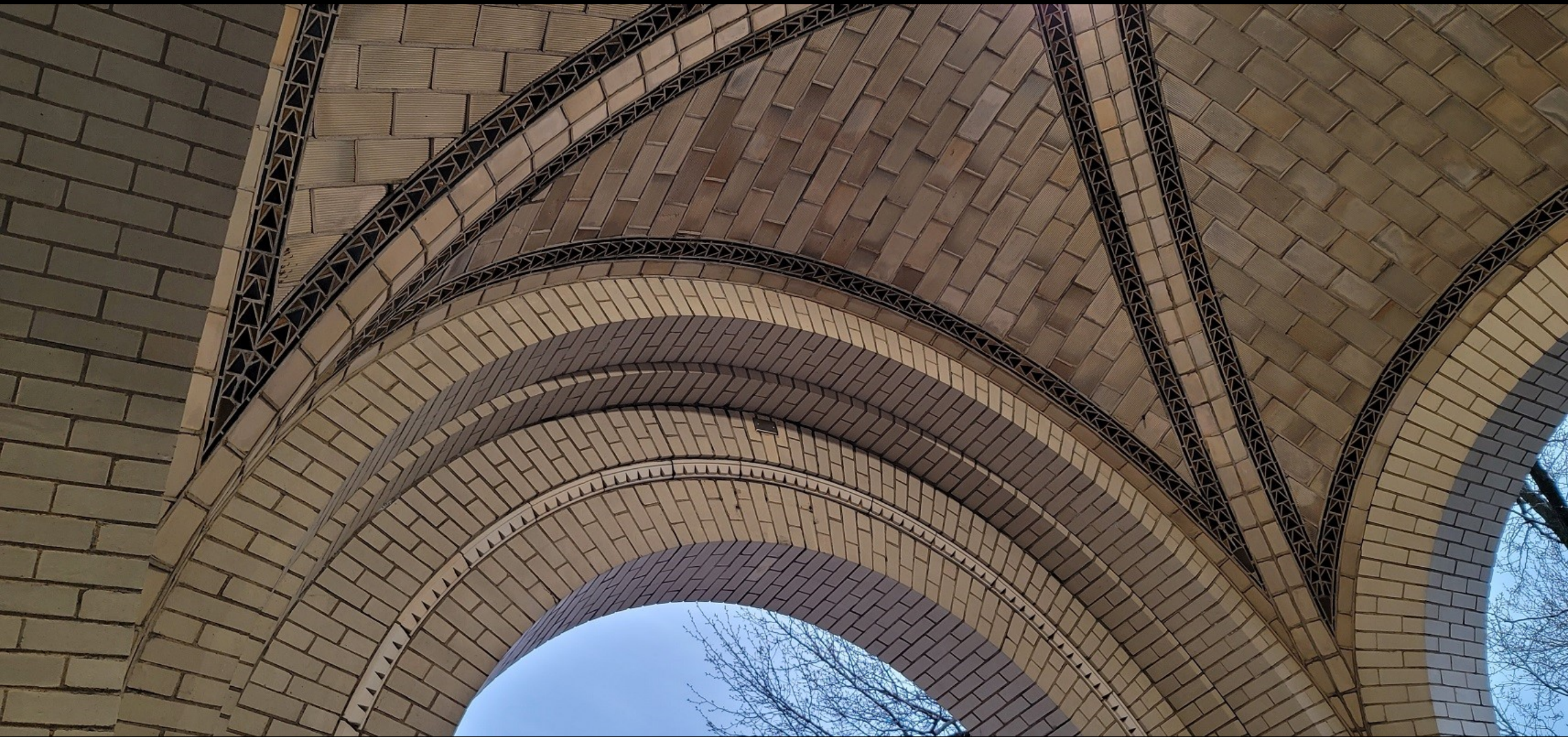


ALLEGHENY GENERAL  
HOSPITAL A.D. MCMXXX

No Smoking  
No Alcohol  
No Firearms













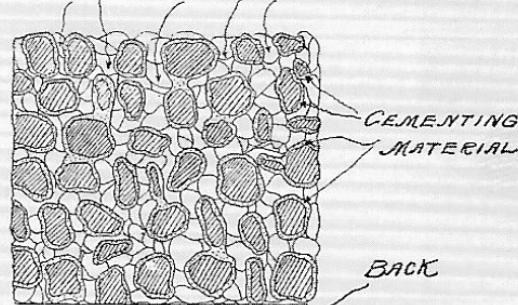


W. C. SABINE & R. GUASTAVINO.  
SOUND ABSORBING MATERIAL FOR WALLS AND CEILINGS.  
APPLICATION FILED NOV. 8, 1915.

1,197,956.

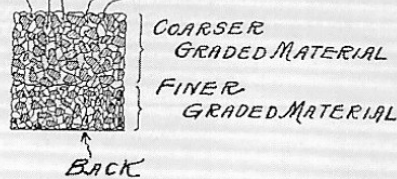
Patented Sept. 12, 1916.

FIG. 1  
INTERCOMMUNICATING CHANNELS EXTENDING TO  
AND OPENING THROUGH THE FACE



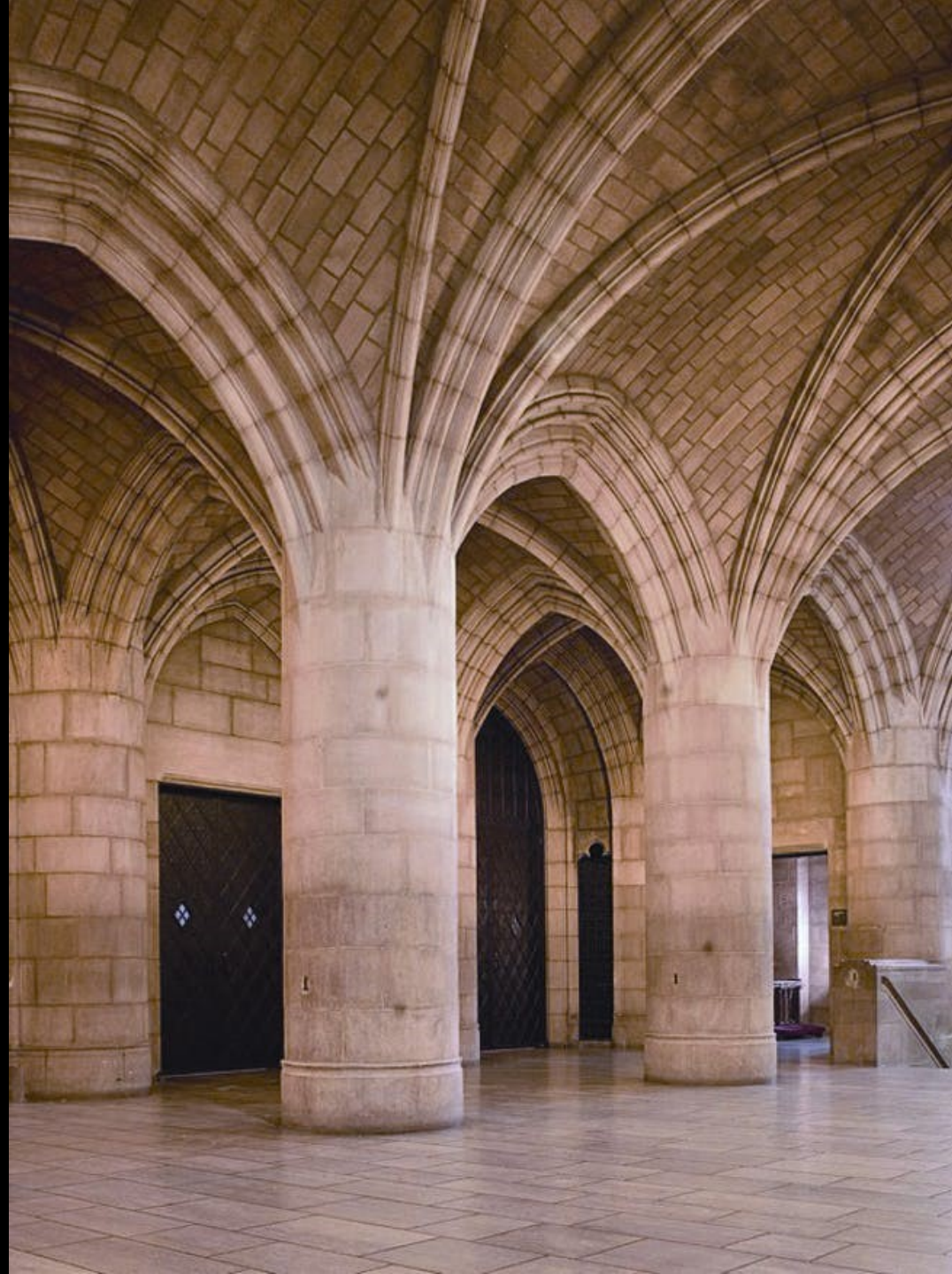
GRANULAR BODY MATERIAL SUCH AS SAND OR  
PUMICE GRADED TO A SUBSTANTIALLY UNIFORM SIZE -  
GRANULES OR PARTICLES BONDED AT POINTS OF  
CONTACT AS SHOWN BY SECTIONED PARTICLES.

FIG. 2  
INTERCOMMUNICATING CHANNELS EXTENDING  
TO AND OPENING THROUGH THE FACE.



WALLACE CLEMENT SABINE  
RAFAEL GUASTAVINO,  
INVENTORS

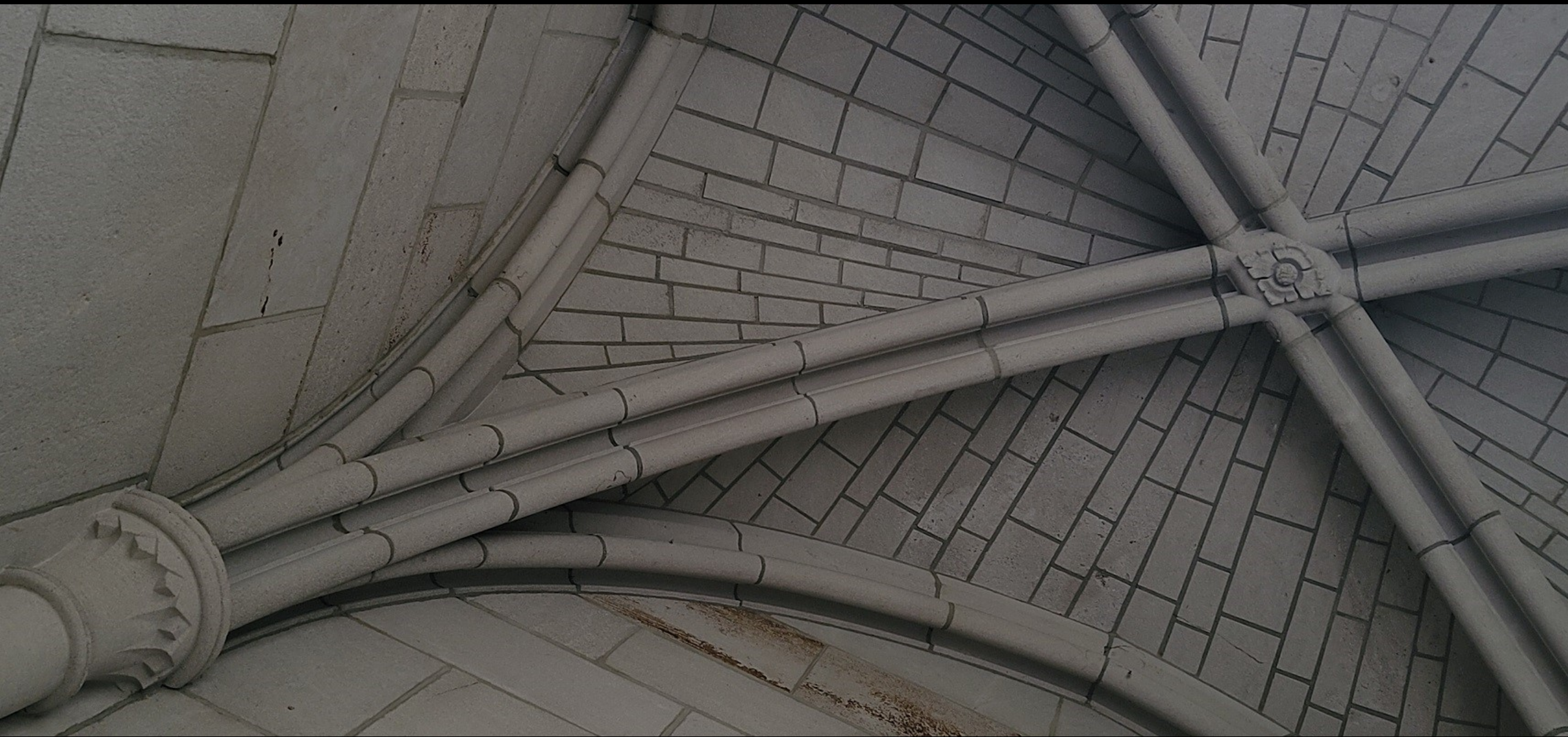
BY,  
*Henry M. Bingham* ATTORNEY











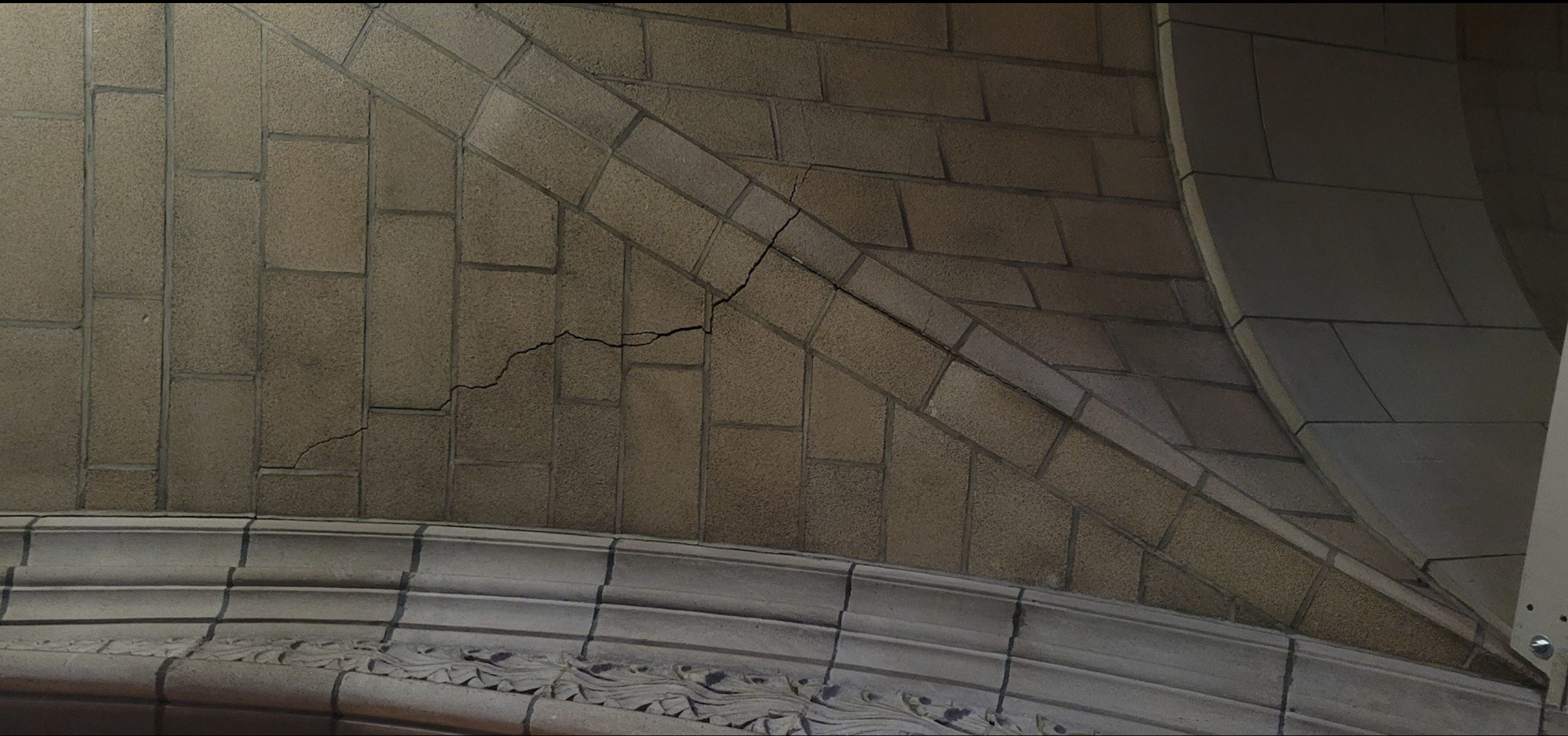


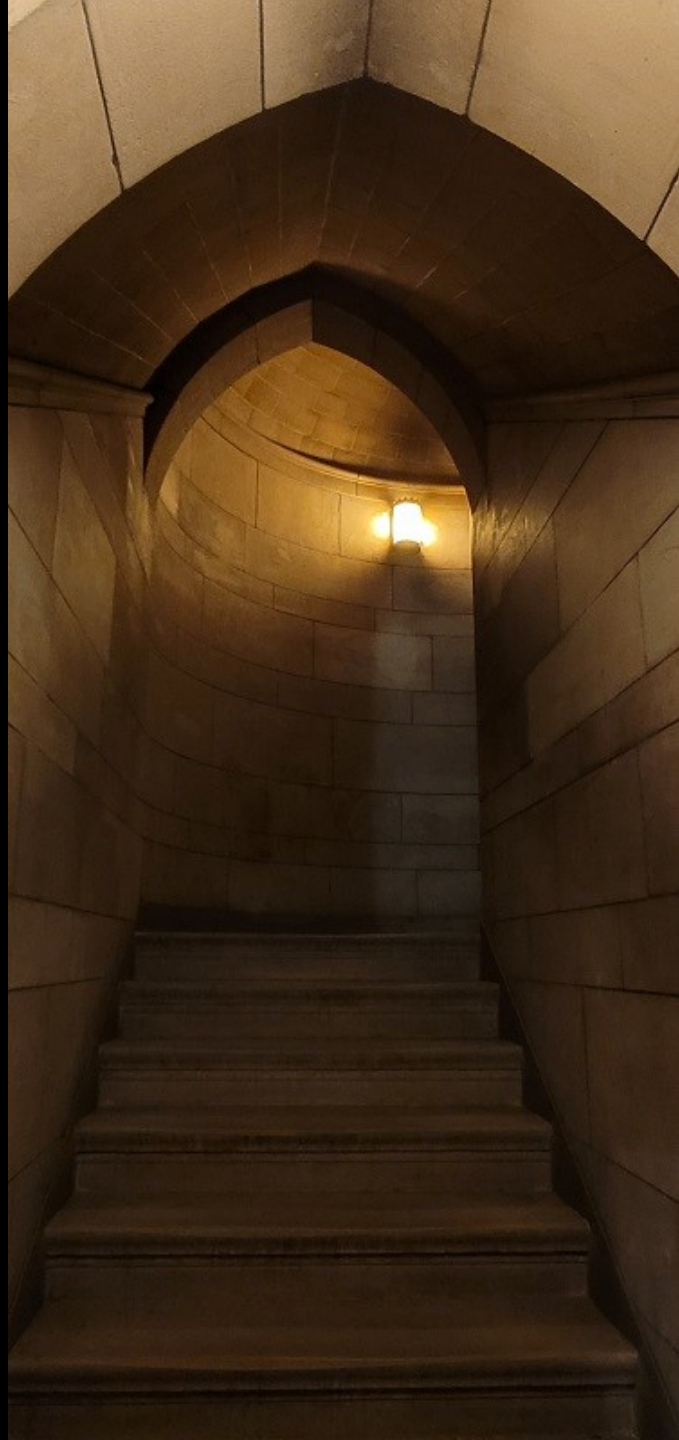
is always  
in progress.

EXIT









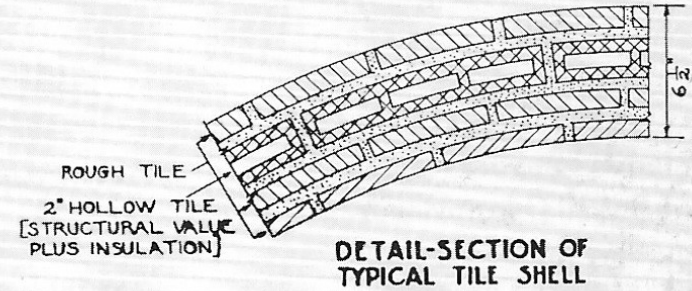
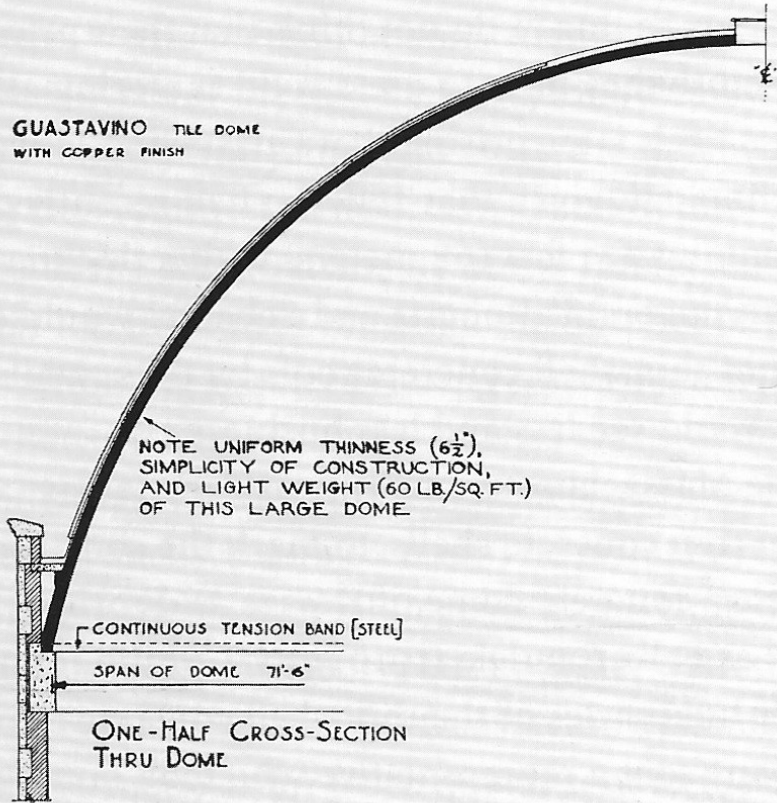






# GUASTAVINO TIMBREL ARCH CONSTRUCTION

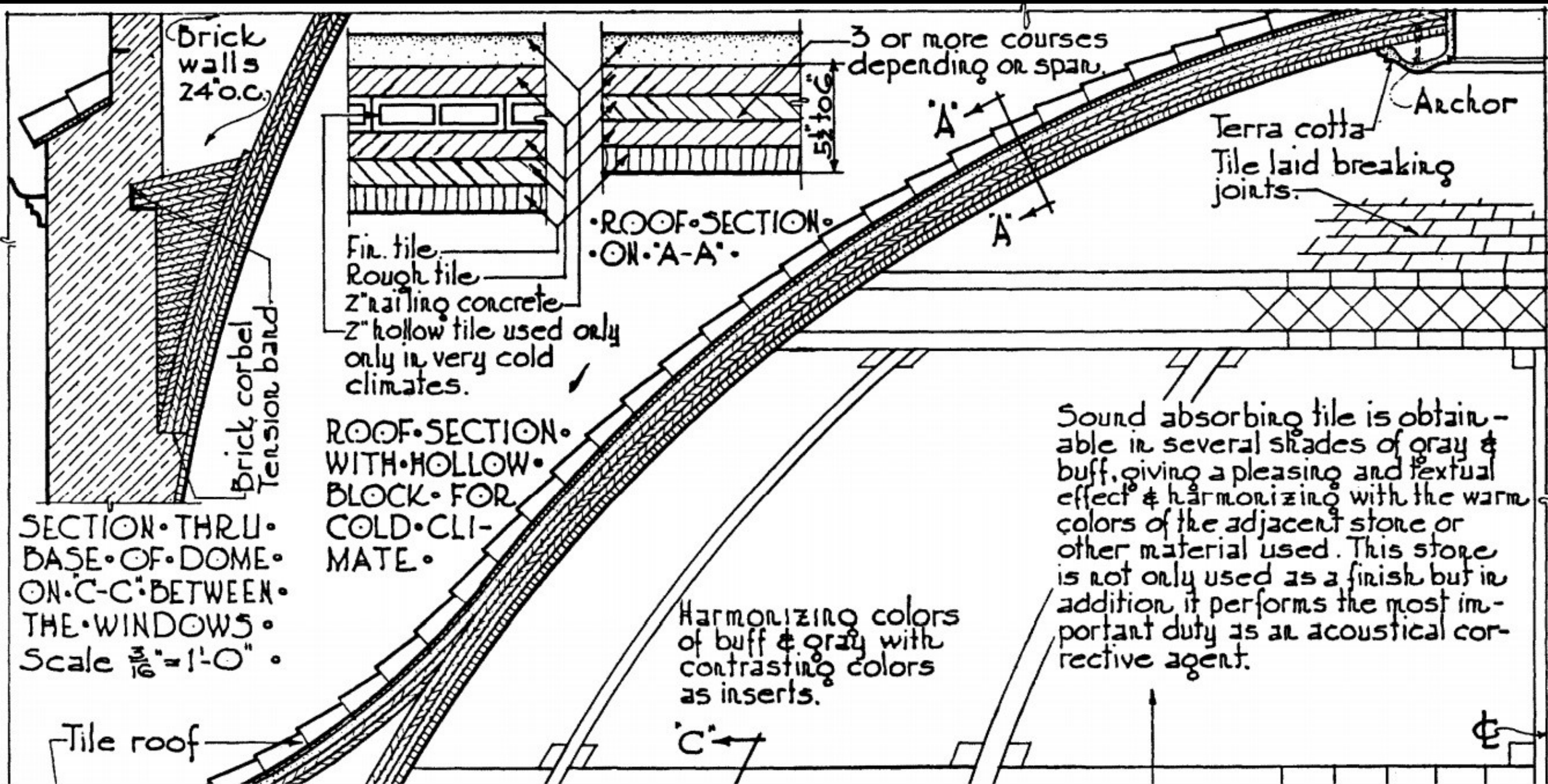
GUASTAVINO TILE DOME  
WITH COPPER FINISH



See our catalog in Sweet's

BUHL PLANETARIUM DOME  
PITTSBURGH, PA.  
INGHAM & BOYD, Architects

**R. GUASTAVINO COMPANY**  
500 FIFTH AVE., NEW YORK      40 COURT ST., BOSTON



Brick walls  
24" o.c.

3 or more courses  
depending on span.

Anchor

Terra cotta  
Tile laid breaking  
joints.

Fin. tile  
Rough tile  
2" railing concrete  
2" hollow tile used only  
only in very cold  
climates.

ROOF SECTION  
ON A-A

Brick corbel  
Tension band

ROOF SECTION  
WITH HOLLOW  
BLOCK FOR  
COLD CLIMATE

SECTION THRU  
BASE OF DOME  
ON C-C BETWEEN  
THE WINDOWS  
Scale 3/16" = 1'-0"

Harmonizing colors  
of buff & gray with  
contrasting colors  
as inserts.

Sound absorbing tile is obtain-  
able in several shades of gray &  
buff, giving a pleasing and textural  
effect & harmonizing with the warm  
colors of the adjacent stone or  
other material used. This stone  
is not only used as a finish but in  
addition it performs the most im-  
portant duty as an acoustical cor-  
rective agent.

Tile roof

C

⊕

