

INDE. 216
CRBIB#002027
391/132024
HISTORIC STRUCTURES REPORT

PART II (PORTION)

ARCHITECTURAL DATA SECTION

ON

INDEPENDENCE HALL

Restoration of Roof Balustrade

Independence National Historical Park
January 1964

PORTION) - RESTORATION OF ROOF BALUSTRADE,

Historic Structures Report

II
Part

Independence Hall
Structure

Independence
Area
Arch. date
Section (interior) No.-Class

Project:

Restoration of Roof Balustrade
Nature of, funds & f.y. programmed

Sections:

Admin.

Called for _____
Rec'd. _____

His.

Called for _____
Rec'd. _____

Architecture

Called for _____
Rec'd. 1/2/64

Called for _____
Rec'd. _____

Called for _____
Rec'd. _____

Review:

distributed Park 1/10/64
" EODC
" WASO
" Region 1/13/64

Approved:

Park 9/8/64
EODC 12/31/63
WASO 10/30/64
Region 10/27/64 Rec.

(Note: Cross-line accomplished items, with dates when done, received, etc. Crossline whole sheet, when report is over.)

Historic Structures Report, Part II (Portion)
Restoration of Roof Balustrade, Independence Hall (Architectural Data Section)

Asst. Regional Director (CIU)

History & Archeology

✓	History	B 1/14
✓	Site	
✓	Arch. D.	2/20
✓	Arch. E.	2/20
✓	Arch. F.	2/20
✓	Arch. G.	2/20
✓	Arch. H.	2/20
✓	Arch. I.	2/20
✓	Arch. J.	2/20
✓	Arch. K.	2/20
✓	Arch. L.	2/20
✓	Arch. M.	2/20
✓	Arch. N.	2/20
✓	Arch. O.	2/20
✓	Arch. P.	2/20
✓	Arch. Q.	2/20
✓	Arch. R.	2/20
✓	Arch. S.	2/20
✓	Arch. T.	2/20
✓	Arch. U.	2/20
✓	Arch. V.	2/20
✓	Arch. W.	2/20
✓	Arch. X.	2/20
✓	Arch. Y.	2/20
✓	Arch. Z.	2/20

Agree

Agree

This curator is confused, but I gather they want to restore an 1828 balustrade to a building to be restored to its appearance of 1776-1800. Also, gather research in 18th Cent. appearance of building not completed. Author notes need for "definitive iconography" on p. 2. Why not have this before acting on recommendation?
 H.W.

Operations & Maintenance

✓	Chief of Maintenance	1/21
✓	Architect	1/21
✓	Civil Engineer	
✓	Mech. Engineer	
✓	Electrical Engineer	
✓	Plumbing Engineer	
✓	Structural Engineer	
✓	Thermal Engineer	
✓	Acoustical Engineer	
✓	Environmental Engineer	
✓	Health and Safety Engineer	
✓	Fire Protection Engineer	
✓	Transportation Engineer	
✓	Water Resources Engineer	
✓	Wind Engineering	
✓	Other	

1/21

1/20/64

1/15

Recommend approval. The wording of the author's "Recommendation" (P. 10) is clear and convincing to me. The tower which was designed by Strickland in the 1820's sets the character of the building which is familiar to most people in America. It makes sense to perpetuate a balustrade of the same era (1828). What's so damned "confusing" about that? JBL 1/17

Programs

Dr. Nelligan - last

No His. Admin Secs' about that? JBL 1/17
 not connected w/ approved HSR Pt I & Pt II. or M. Plin
 recommend to return for review about his ill



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

H30-DCA

OCT 30 1964

Northeast Region		Initial and Date
Reg. Director		
Asst. to RD (PA)		
Asst. to RD (Dev. L)		
Resource Studies Adv.		
Asst. Reg. Dir. Adm.		
Finance & Prop.		
Personnel		
Programs		
Asst. Reg. Dir.-Oper.		
Interp. & VS		
Land & Water		
Maintenance		
Master Plan Coord.		
Res. Manage. & VP		
Asst. Reg. Dir.-Co-Act		
Fed'l Agency Assis.		
NPS Studies		
State Assistance		

Memorandum

To: Regional Director, Northeast Region

From: Acting Assistant Director, Design and Construction

Subject: Historic Structures Report, Part II (Portion),
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall, Independence NHP

The interested Divisions have reviewed the subject report and they concur with the recommendations stated in your October 27 memorandum. I have approved the report this date.

Richard T. Montgomery

Richard T. Montgomery

cc:
Chief, EODC (2)
Superintendent, Independence

*Posted
Gmf*

OCT 27 1964

H30-BHA
NER

Villiger
10/9

Posted
Gmf

Memorandum

To: Director
From: Regional Director, Northeast Region
**Subject: Historic Structures Report, Part II (Portion),
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall, Independence NHP**

The subject report is recommended for approval.

Your early review will be appreciated, in order that the project
may move forward.

(Sgd.) Ronald E. Leg

Enclosure

cc:
Superintendent, Independence
Chief, EODC

MHNelligan/gmf
General
Daily
Area

Office Memorandum • UNITED STATES GOVERNMENT

TO

Mr. Holligan

DATE:

10/27

FROM :

R J L

SUBJECT:

The Independence balustrade, & the completion of exterior restor. came up in the meeting with Mayor Tate on Oct. 21 & the Service promised to have several items of work contracted by Mr. J. A. Burdick still belong to the City. Accordingly I've approved going ahead as

outlined in the amended report.

UNITED STATES GOVERNMENT

Memorandum

TO : Regional Director

DATE: October 16, 1964

FROM : Resource Studies Advisor

SUBJECT: Independence Hall Balustrade

I've got this straight now.

Summary: Essentially, the issue boils down to this: There are distinct differences in scale, strength of character, and proportions between 18th-century and 19th-century. (The 18th-century are strong, robust, and obviously tailored to fit the taste and skill of the builder. The 19th-century were much more refined in scale, details, and character.) Strickland's steeple balustrade is of this kind. There is no lack of data, comparative or otherwise, on either.

So the issue is simply this: Shall the balustrade on Independence Hall be typically 18th-century in character and design, and thus harmonize in period and architectural character with the rest of that building, or, shall it be typically 19th-century, harmonizing with the bell tower, but not with the architectural character and details of the hall itself?

The Master Plan, the approved Historic Structures Report, Parts I and II, definitely state that the 19th-century Strickland tower will be preserved as such but Independence Hall itself, because it is primarily an historical monument, will be of the period of its great historic events. However, the roof put on last year was 18th-century (and this was recommended by the EODC architects), and the balustrade on that roof should likewise be 18th-century--consistent in character, scale and construction with the rest of the building.

To put a 19th-century balustrade on an 18th-century building would be a great mistake, almost certain to result in adverse criticism.

Therefore, I recommend that the EODC be requested to report on our memorandum of May 5--which asked that office to give us its best effort at an 18th-century balustrade.

Mr. Lillian

UNITED STATES GOVERNMENT

Memorandum

TO : Regional Director

DATE: October 8, 1964

FROM : Resource Studies Adviser

SUBJECT: Historic Structures Report, Part II (Portion),
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall,

I recommend that you do not recommend this report for the reasons outlined in the enclosed memorandum

However, in the event that you do, the attached memo, recommending it to the Director, is ready for your signature.

M. H. Neilligan
Murray H. Neilligan

Enclosures

Dr. Neilligan
This is getting
extremely complicated.
I will discuss this at
plan review
RJL

DRAFT
MHNelligan:gmf:ftc
10/8/64

Mr. Lee:

Although the park by memorandum dated September 8, 1964 seems to reluctantly concede the argument and concurs with the architects' revised statement, i.e. that Strickland was hired to "restore" the steeple, and in restoring the steeple and roof balustrade "conscientiously" attempted to recapture the 18th Century (in character, if not in detail)--the evidence presented does not support this assumption.

A basic deficiency in the report is the absence of any iconographic evidence; the prints, photos and drawings cited in support of the above conclusion must be looked for elsewhere.

A second serious deficiency is of the evidence given in the main body of Parts I and II of the Historic Structures Report, such as the 1850 photo, the 1778 Peale painting and several photographs of the period 1870-1900 are not mentioned. In the absence of an Historic Structures Report, Part III, for the reroofing project done last year, there is no record available as to what physical evidence was disclosed in the course of that project. These deficiencies alone would justify complete revision of the report, including an effort at a reconstruction of the 18th Century balustrade, as we requested in our memorandum of May 4, 1964.

In addition, the architects' conclusions are derived from a number of

unsupported assumptions.

(1) That Strickland designed a balustrade which would be the 18th Century. Actually, there is no evidence that he designed it at all, let alone to be reminiscent of the 18th Century. Even that supposition would be unlikely since his tower itself was hardly reminiscent of the 18th Century.

(2) That a balustrade was put on in 1828--again no evidence is presented. (It does appear in 1828 print not mentioned in the architects' report).

(3) That the 1828 balustrade survived until the 1897 restoration, and that since the steeple and the roof balustrade appeared to be similar in the 1856 photo, the three pieces of the steeple balustrade which were acquired from Gouse in 1956 and which "purportedly" were salvaged from the 1897 project, in fact date back to 1828 and can serve as detail prototypes for the 1828 roof balustrade.

(4) That although a baluster "found" in the park maintenance shop in recent years differs "slightly" from the Gouse specimen, it is "identical" to that in the 1922 photograph and is therefore a "direct descendent" of the 1828 baluster. Just when it was born is not surmised.

In summary: I would agree with the architect that the evidence for an 18th Century balustrade as presented in the Architectural Data Section is inadequate for even a conjectural restoration. The same is true of the so-called 1828 Strickland reconstruction; the evidence presented is inadequate to support the preliminary drawings appended

to the report. Indeed, it is so skimpy as to make it impossible to review the report without resorting to other sources.

However, the evidence available is sufficient for a reasonable conjectural 18th Century restoration. I recommend, therefore, one of three solutions:

- (1) Request that a special report be prepared to consist of the usual 3 sections, Administrative, Historical and Architectural, so that all the evidence, conclusions and restoration proposals be gathered in one report.
- (2) That if further study cannot be given to the matter, no attempt be made at this time to restore the balustrade.
- (3) Or, if it is imperative that a balustrade be put on the Hall in the near future, that the 1945 balustrade be reinstalled until a better effort is possible.

Of the three solutions, I favor (1). If it is not practicable, then I strongly recommend (3).

1. Why ignore the State-House detail in Peale's portrait of Girard c 1778?
2. The Read (1774) and Scull & Heap views, which Dysert accepts, agree in showing 10 bays. So does the Davies (1794) which certainly wasn't copied from either Scull & Heal or Read. The Peale, because of the perspective, does not show the entire ballustrade, but is not inconsistent with 10 bays.

The Read shows 4 ballusters per bay, the other 3 views agree on 5.

The Birch (1804) is a 19th Century View, and Birch is not too careful with detail.

Thus - of the three views nearest 1776 (1753, 1774, 1778), two show and one appears to show a ballustrade of 10 bays.

Two, including the Peale, show 5 ballusters per bay.

Thus, the weight of the only pictorial evidence of the ballustrade as it was in 1776, indicates a ballustrade of 10 bays, 5-ballusters per bay.

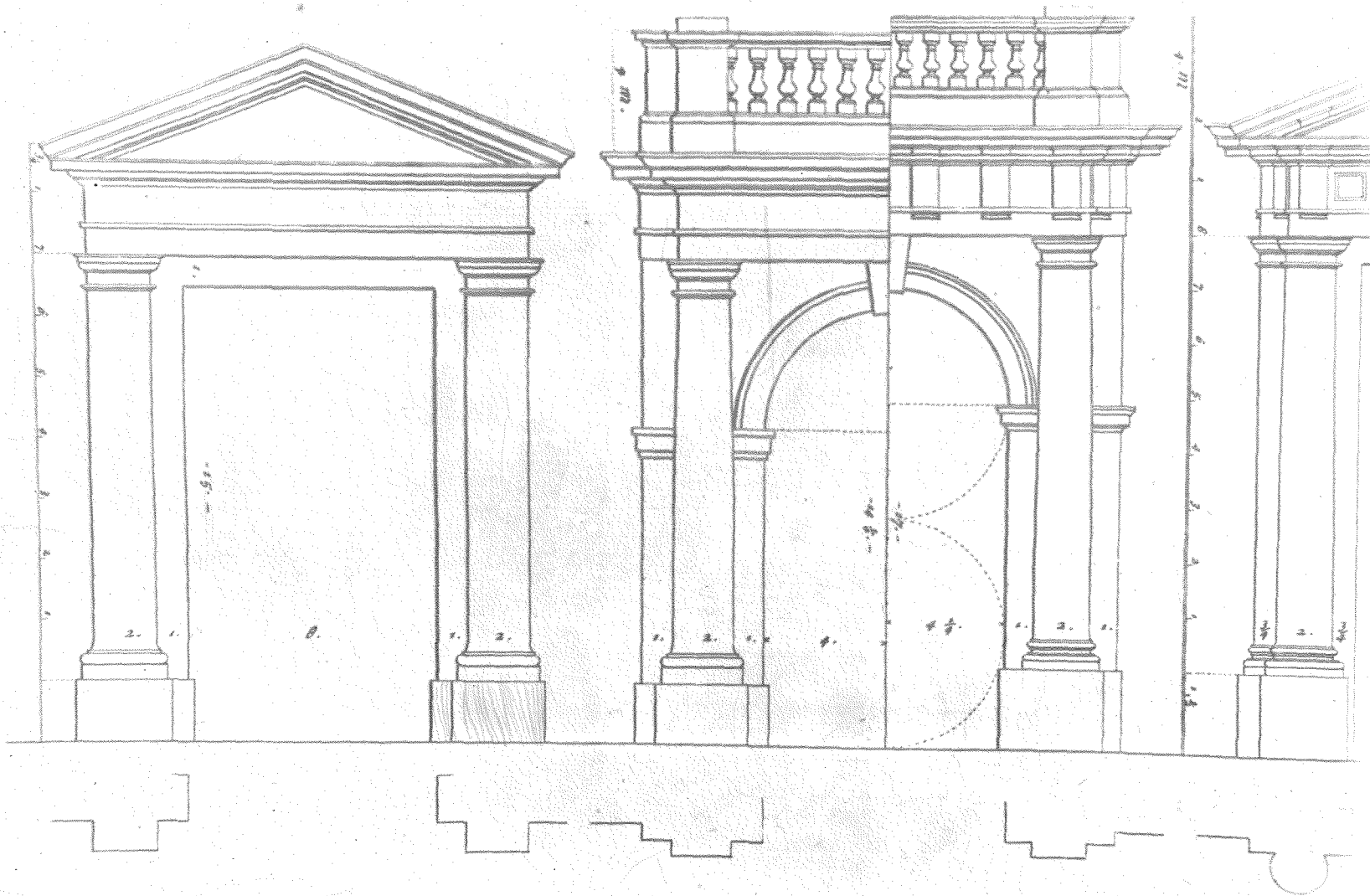
Each of these, and the Birch as well, show the ballustrade to be roughly 1/2 the height of the chimneys.

Admittedly, the details are not clearly shown.

It is recommended to restore a ballustrade of 12 bays, 8 ballusters per bay. The details of this ballustrade are known.

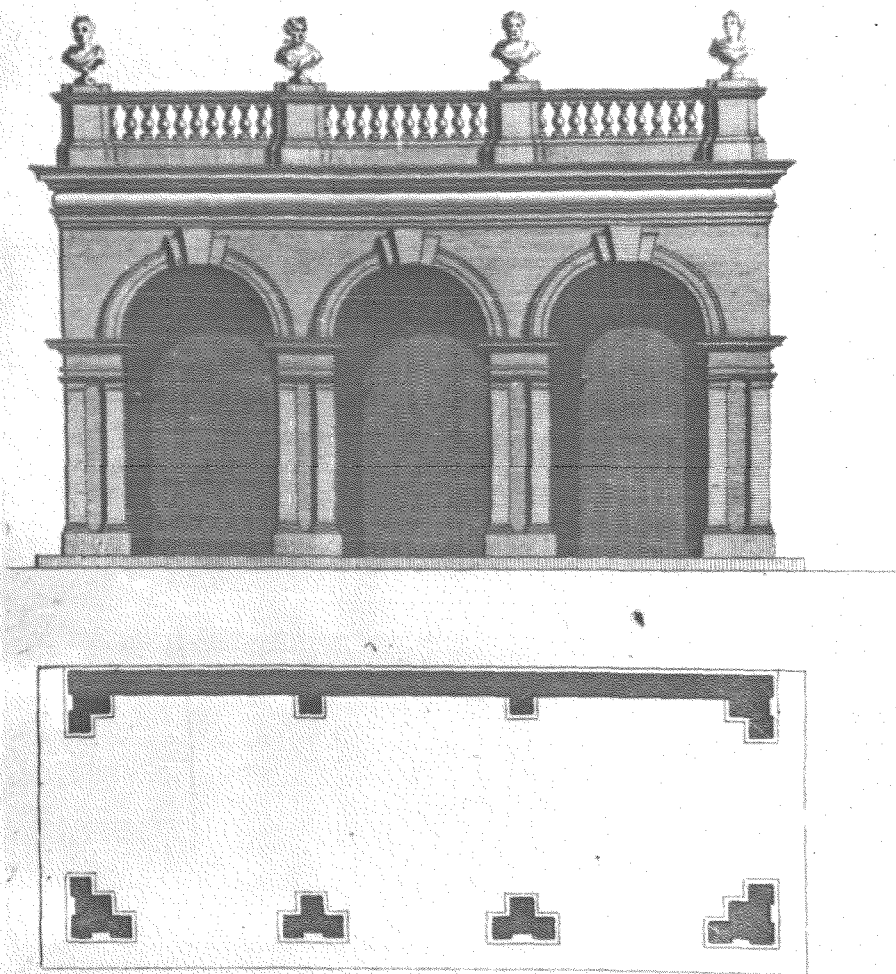
What then do we do - restore the 10 bay, 5 baluster ballustrade shown to have been there in 1776, guessing at detail, or the 12 bay, 8 balluster ballustrade of 1828, with known details?

The average visitor will view the restoration from the ground, can note only proportions, number of bays and number of ballusters per bay, and will never be able to see the construction details.



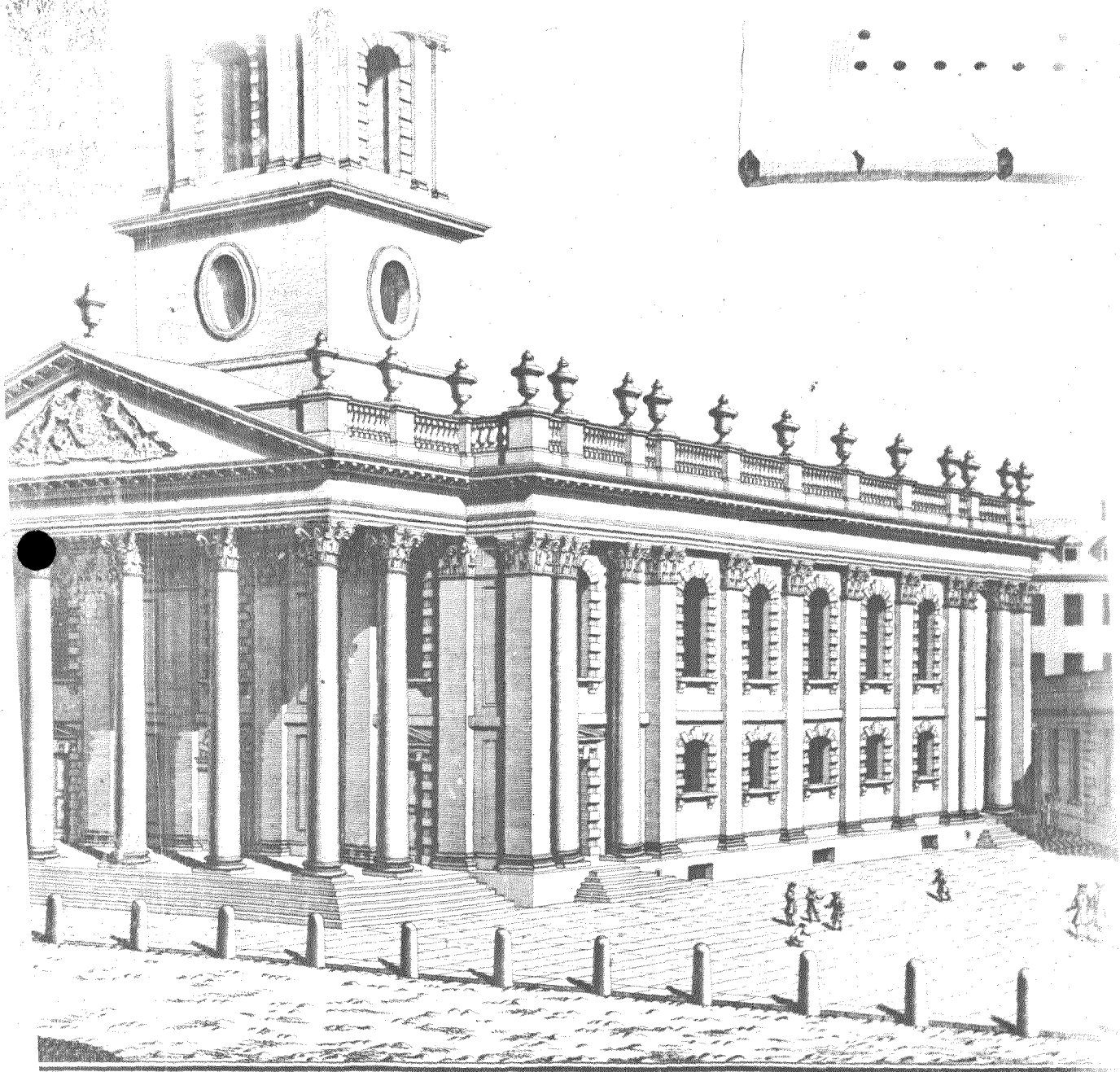
Jules, 1728 ed.

p. 98



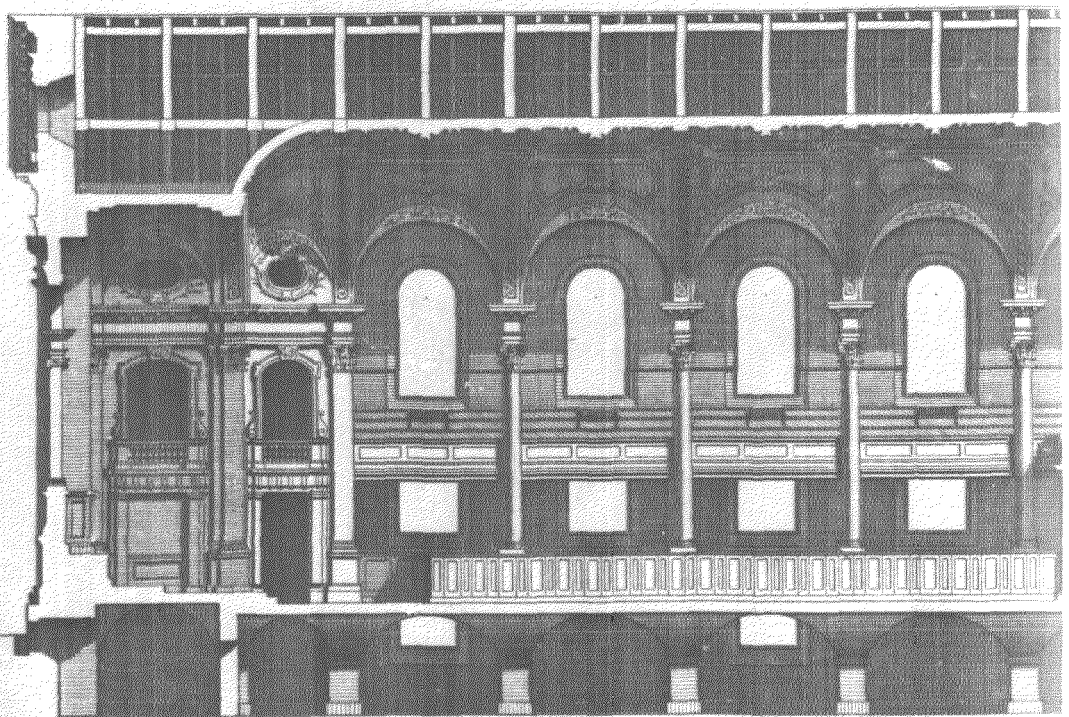
Globe, 1728 ed. p. 82

Gilbert, 1728 ed., Plate 1, P.



Perspective View of S^t Martins Church.

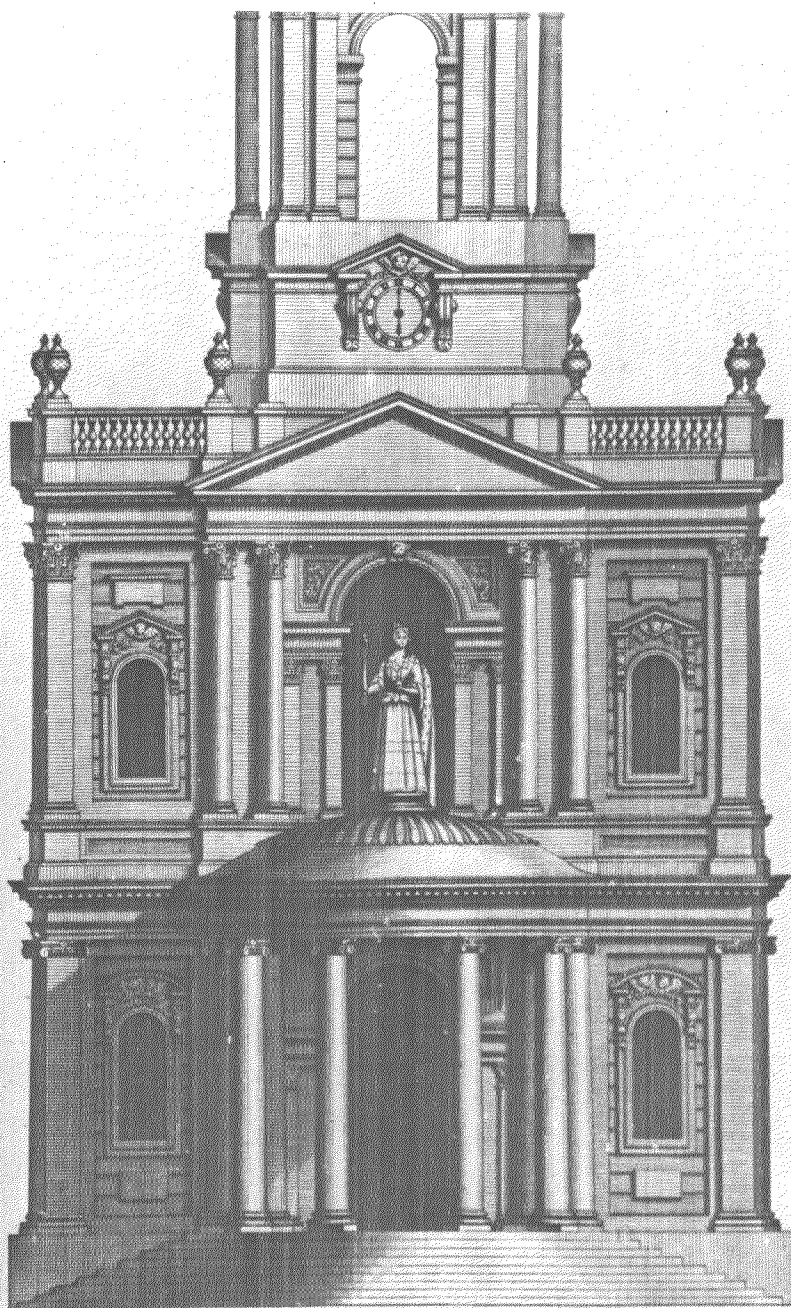
Gibbs, 1728 ed. pl. 5



The Section from East to West of St. ...

Jacobus Gibbs Architecto.

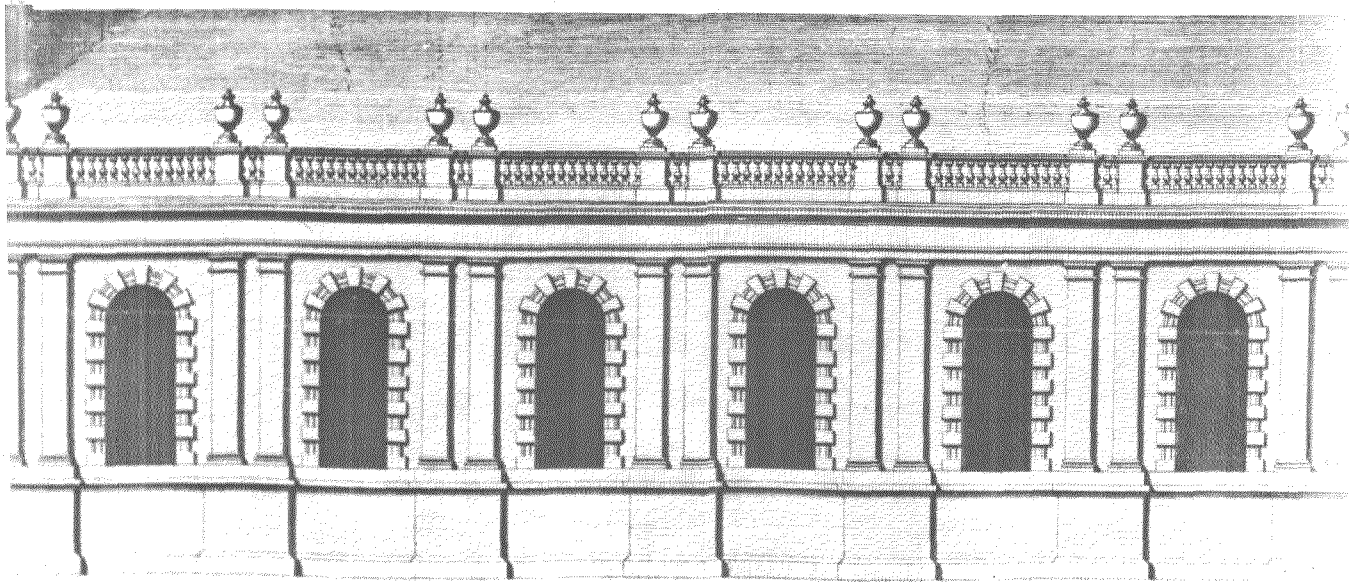
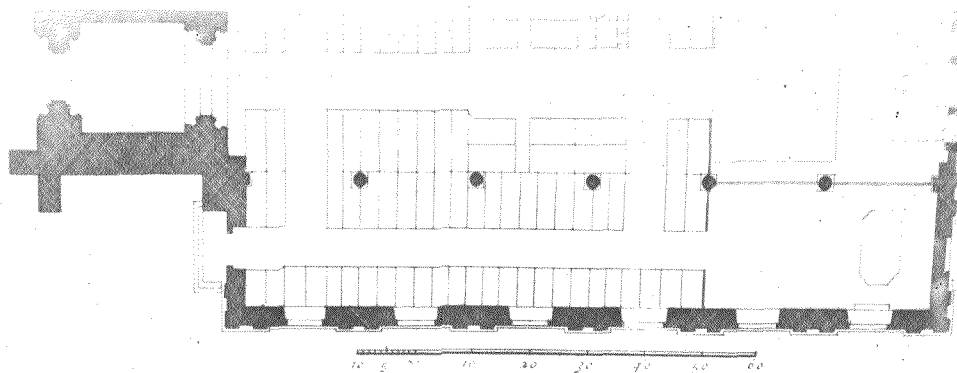
Gibbs, 1728 ed., pl. 17



The West end

By Gibbs Arch. del.

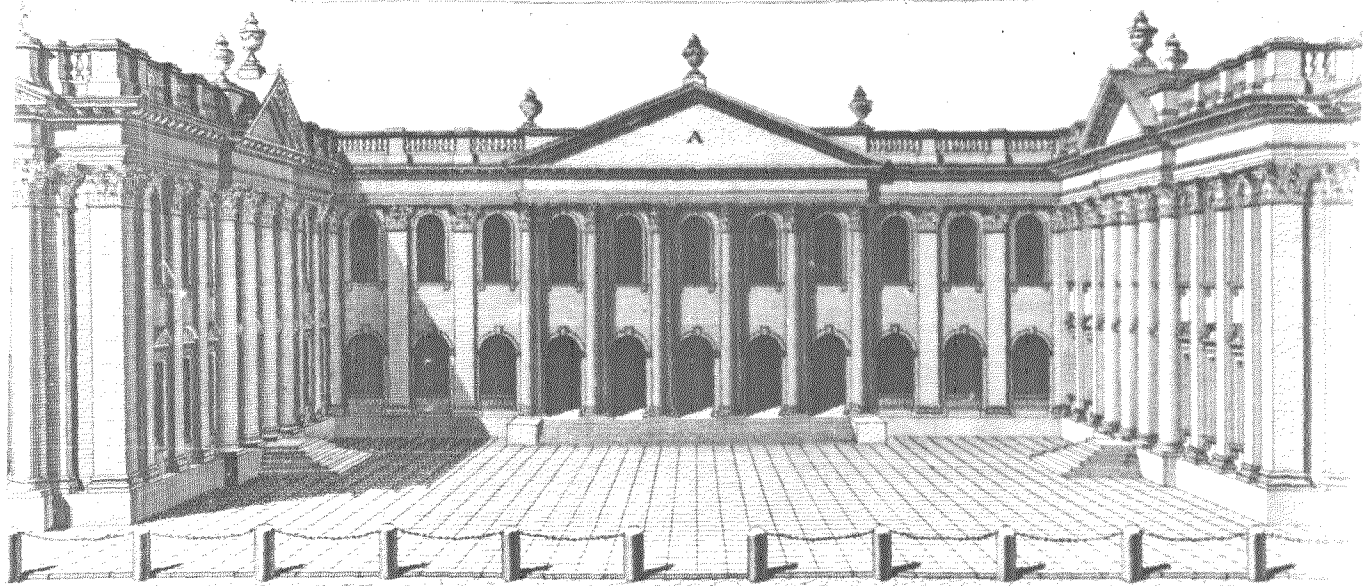
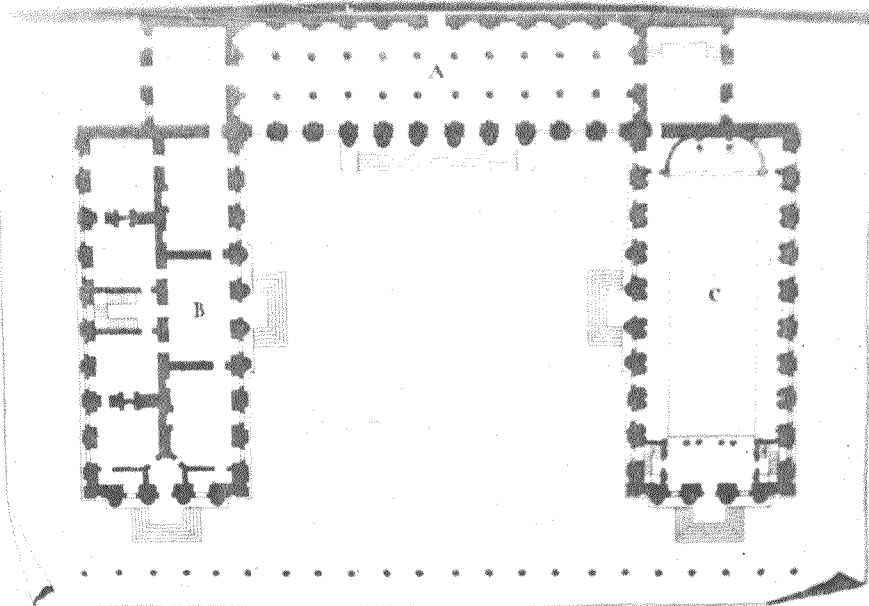
Jekles, 1728 ed., pl. 26



*in Sanctorum, apud Derbyenses, mox ab imis instauranda, una cum Sepulchrati Monumento, hinc
 insigne conductur. Certe adhuc Turri insignificanti, quae ad 178 pedes apud sublimis attollit. Ministeria
 venerandi. Pater non minus integris moribus, quam splendidis, Viribus illustris, humillime deduxit.*

Delinavit: J. Jekles. Sculp: H. Muldergh.

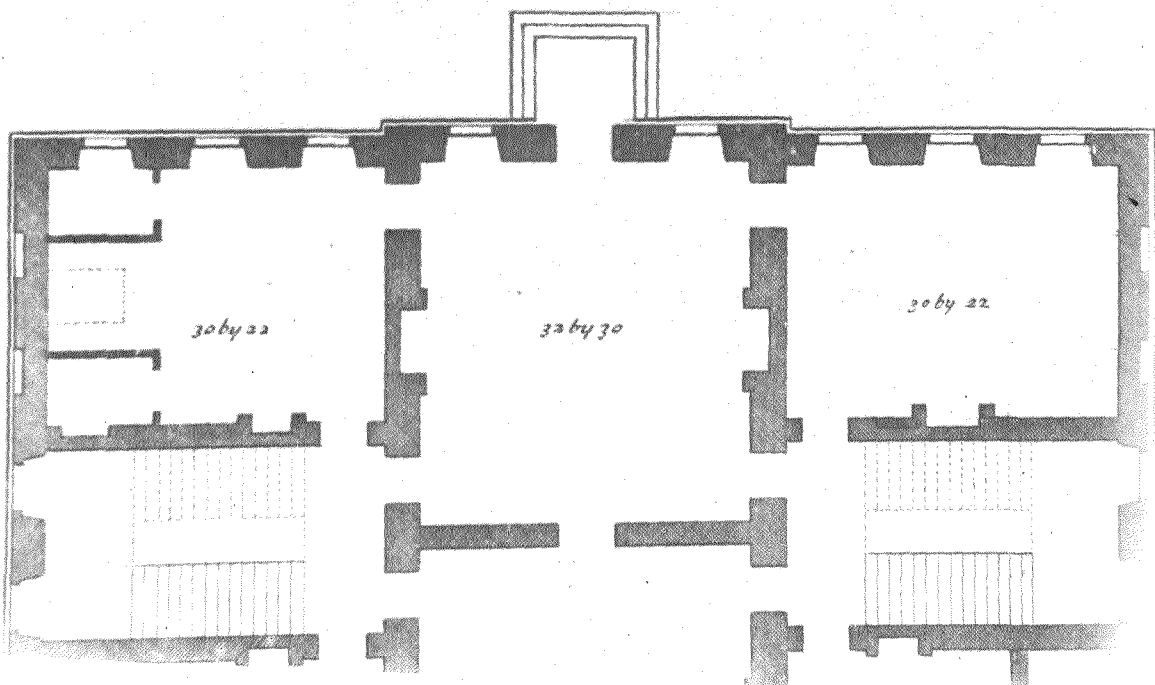
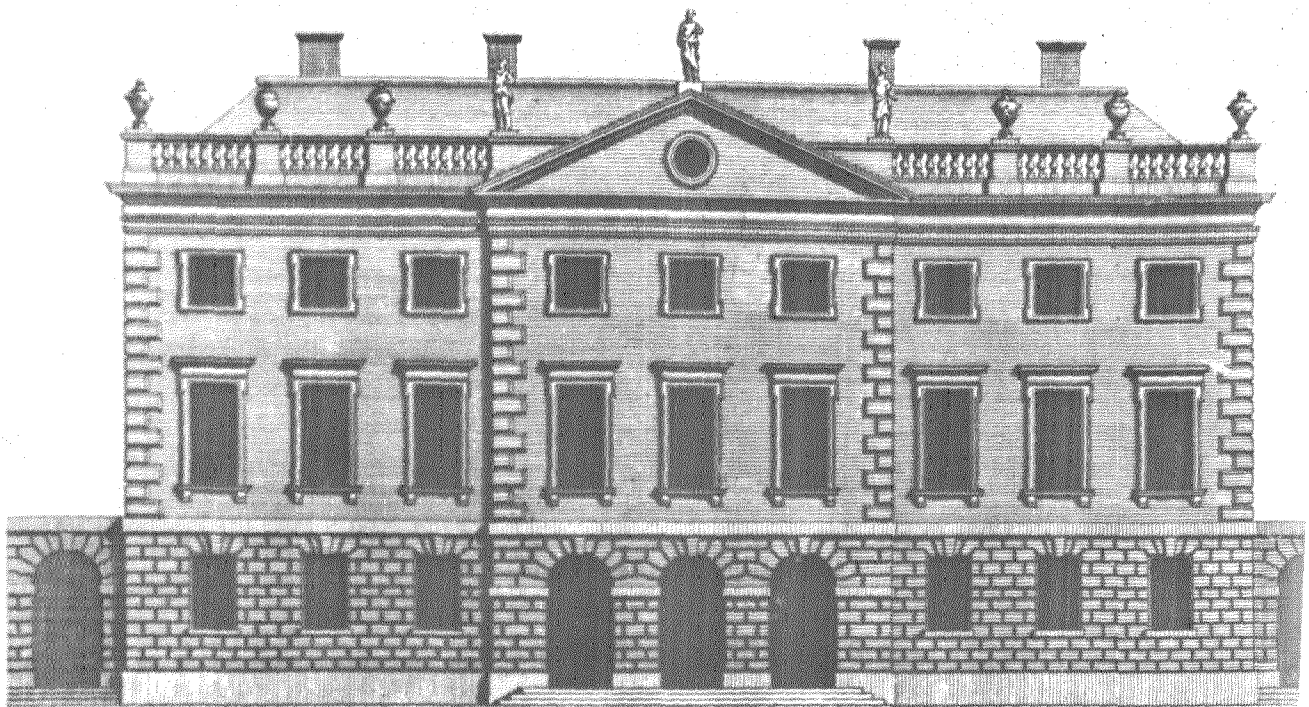
Gilbert 1728 ed. 1 pl. 36



The Public Building at Cambridge in Perspective

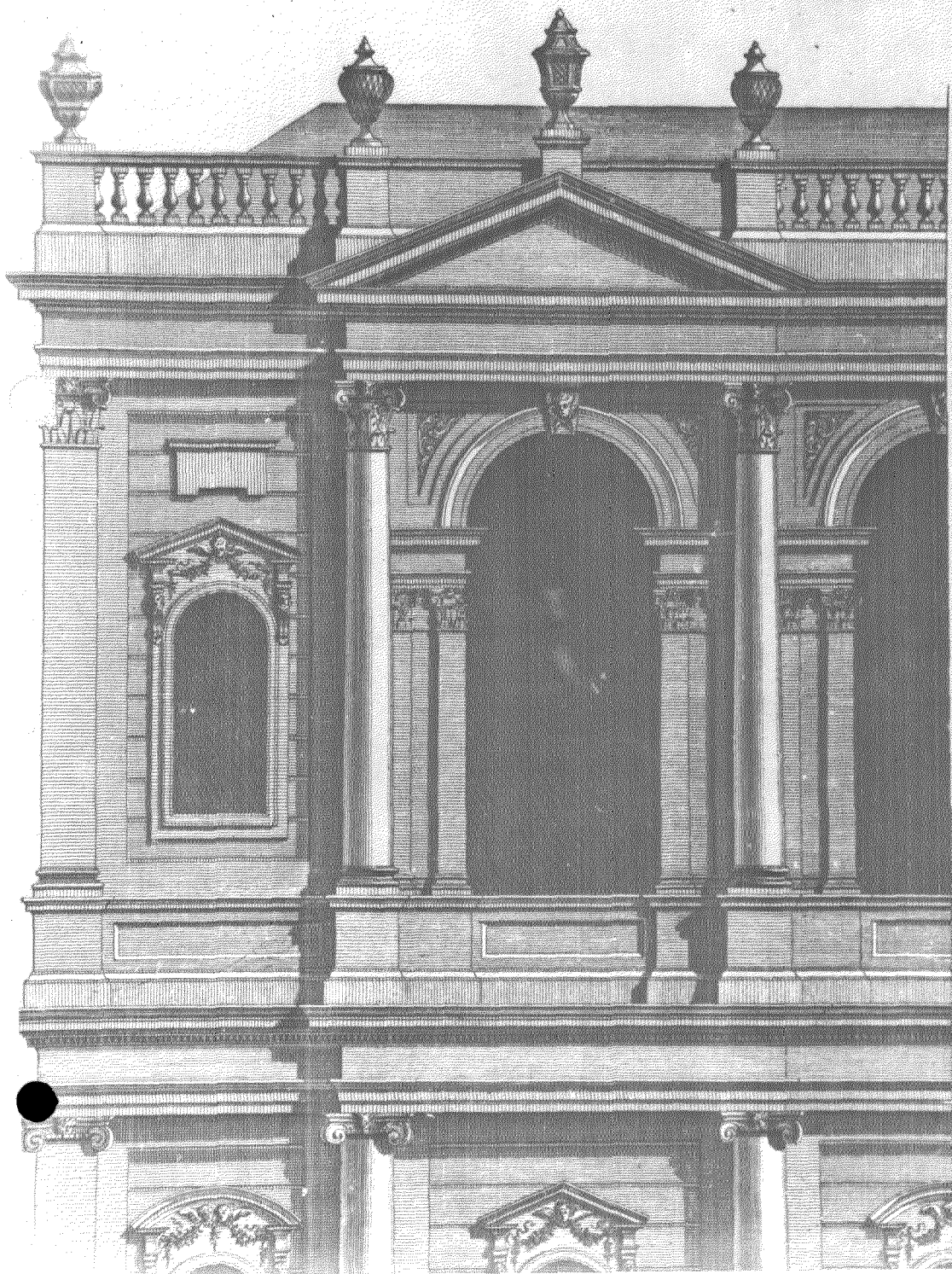
- A The Royal Library
- B The Chancery & Register Office
- C The Senate House

Johs, 1728 ed., pl. 42 (stopped here)

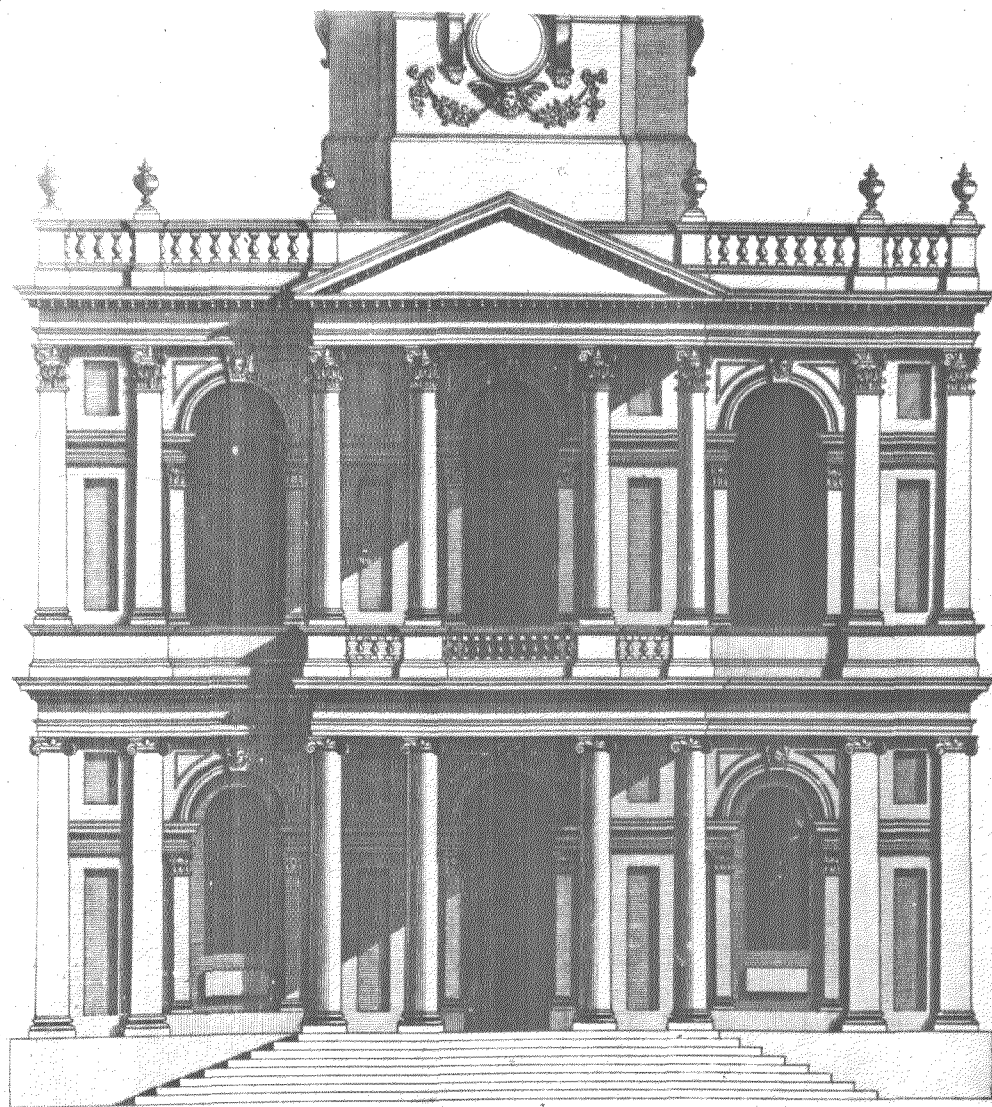


Gibbs 1728 ed., Pl. 20

P. 20



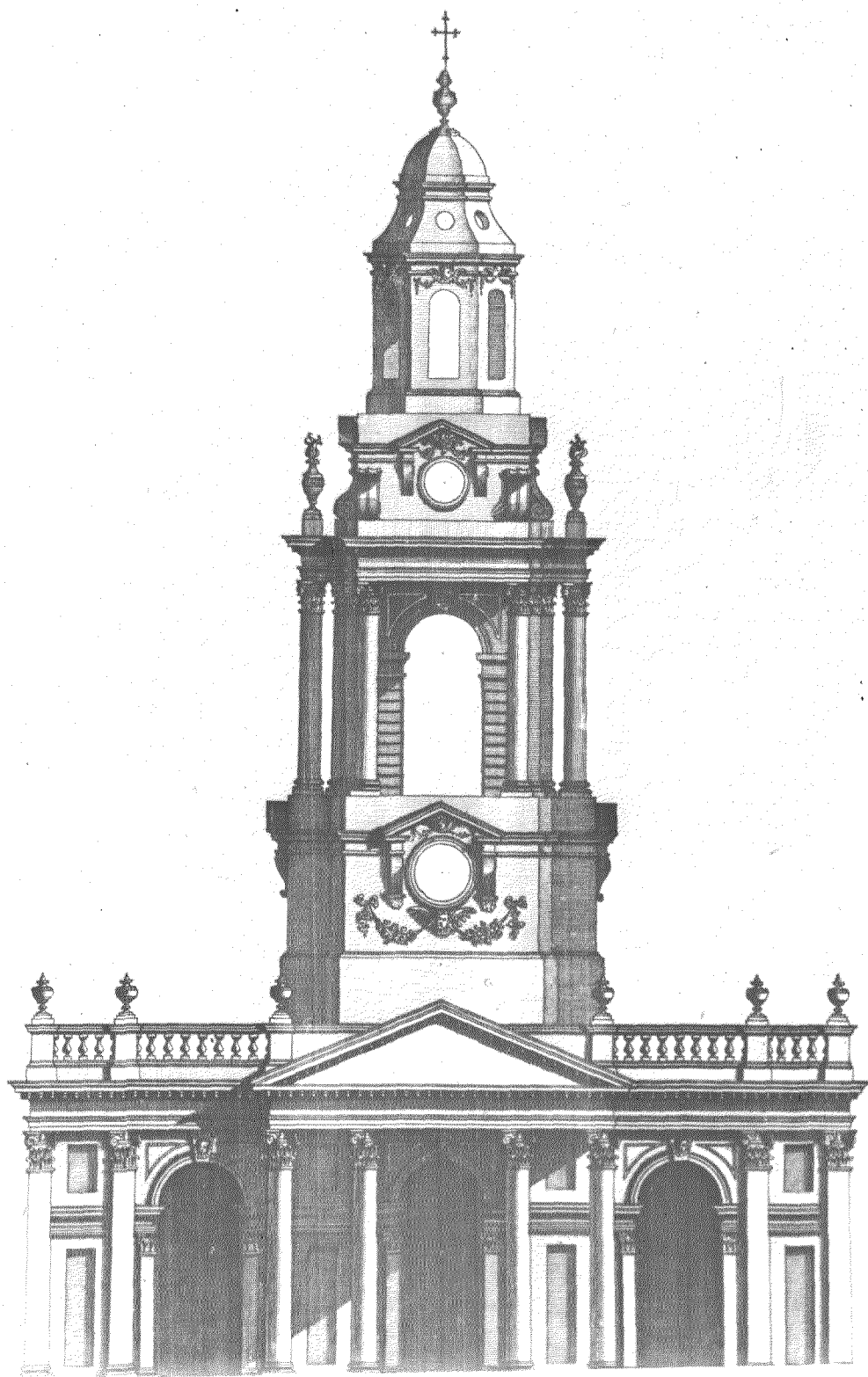
Jubles, 1728 ed., pl. 23



The West end.

Arch. del.

J. Harris Scul.





UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Independence National Historical Park
420 Chestnut Street
Philadelphia, Pa. 19106

September 8, 1964

IN REPLY REFER TO:

H30-RHA
NER

Northeast Region		Initial and Date
Reg. Director		
Asst. to RD (PA)		
Asst. to RD (Dev. L)		
Resource Studies Adv.		
Asst. Reg. Dir. Adm.		
Finance & Prop.		
Personnel		
Programs		
Asst. Reg. Dir. Oper.		
Interp. & V.		
Land & V.		
Maintenance		
Records		
Reg.		
Asst. Dir.		
Fed. Liaison		
RES		
S.		

Memorandum

To: Regional Director, Northeast

From: Superintendent, Independence NHP

Subject: Historic Structures Report, Architectural Data
Section, Part II (Portion), Independence Hall,
Restoration of Roof Balustrade, Independence

We hereby recommend for approval the revised recommendations
for the subject report.

M. O. Anderson
M. O. Anderson
Superintendent

*Posted
Jmf*

9/2

SEP 3 1964

K30-22A
NIR

Nelly
9/2
Postel
Garf

Memorandum

To: Superintendent, Independence

From: Acting Regional Director, Northeast Region

**Subject: Historic Structures Report, Architectural Data Section,
Part II (Portion), Independence Hall, Restoration of
Roof Balustrade**

Enclosed is a copy of the revised "Recommendation" of the NHC
for the subject report. Please remove page 10 from the report
and substitute the enclosed pages 10-11.

George A. Palmer

Enclosure

cc:
Chief, NHC

GMFraneys
General ✓
Daily
Area



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Eastern Office, Design and Construction
Philadelphia, Pa. - 19106

IN REPLY REFER TO:

H30-H

August 28, 1964

Northeast Region		Initial and Date
AUG 31 1964		
☒	Reg. Director	
☐	Asst. to RD (PA)	
☒	Asst. to RD (Dev. L.)	8/31
☐	Resource Studies Adv.	
☐	Asst. Reg. Dir. Adm.	
☐	Finance & Prop.	
☐	Personnel	
☐	Programs	
☐	Asst. Reg. Dir. Oper.	
☐	Interp. & VS	
☐	Land & Water	
☐	Maintenance	
☐	Master Plan Coord.	
☐	Res. Manage. & VP	
☐	Asst. Reg. Dir. Co-Rec.	
☐	Fed'l Agency Ass's.	

Memorandum

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Architectural Data Section, Part II (Portion), Independence Hall, Restoration of Roof Balustrade, Independence

Enclosed for your review and distribution are three copies of the revised "Recommendation" for the subject report which was initially transmitted for review on December 31, 1963. Please remove page 10 from the subject report and substitute the enclosed pages 10-11. A copy of the revised "Recommendation" has been retained by this office.

Robert E. Smith

By:

Donald F. Benson
Donald F. Benson, Acting

Enclosure

cc:

Assistant Director, Design and Construction
Superintendent, Independence

H30-NHA

AUG 6 1964

*Posted
gmf*

Memorandum

To: Chief, EODC
From: Regional Director, Northeast Region
Subject: Historic Structures Report, Part II (Portion)
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall

*Nelly
8/6*

Before making our recommendation to the Washington Office as to what period the Independence Hall balustrade shall be restored, we believe the Service should seek the opinion of the Architectural Advisory Committee for the park. By copy of this memorandum we are requesting Superintendent M. G. Anderson to schedule this subject for discussion at the next meeting of the committee. Any comparative data on the alternative treatments for the balustrade which your office can prepare or have available for the discussion will be much appreciated. The meeting may be held in October, but probably not before then.

(Sgd.) Ronald F. Lee

cc:
Superintendent, Independence
Mr. Whitcraft

MHNelligan/RFLee/gmf
General ✓
Daily
Area

~~Heiligen~~ 7/9
for plan
review
RJP

Ronnie

Re: Roof balustrade
Ind. Hall

Replacement of this
rail on the roof has
got less bogged down
between a difference
between (1) the EODC ar-
chitects who prefer using
the 1828 design par-
tially at least because
the more much more
knowledge about it,
and (2) the Parks historians
who just as strongly
feel that with the
historical data produced,
EODC should be able
to research & design
& build a replica
of the original 18th
Century rail.

Looks like an ar-
bitrary administrative
decision is needed.
How about you Pgh
Hall, & I getting to-
gether to decide it
(over)

so that EOLC
can go ahead?

MDQ



IN REPLY REFER TO:
H30-A

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Eastern Office, Design and Construction
Philadelphia, Pa. - 19106

May 6, 1964

Region	Initial and Date
MAY 7 1964	
Reg. Director	R. G. Hall 5/8
Asst. to RD (PA)	
Asst. to RD (Dev. L)	7/11/64
Resource Studies Adv.	m 5/11
Asst. Reg. Dir. Adm.	
Finance & Prop.	
Personnel	
Programs	DM 5/11
Asst. Reg. Dir. Oper.	
Interp. & VS	
Land & Water	
Maintenance	
Master Plan Coord.	
Res. Manage. & VP	
Asst. Reg. Dir. Co-Act	
Fed'l Agency Assis.	
NPS Studies	
State Assistance	

Memorandum

To: Regional Director, Northeast Region

From: Chief, EODC

Subject: Restoration of the roof balustrade, Independence Hall

This is in reply to your May 4 memorandum concerning the restoration of the balustrade on the roof of Independence Hall.

There appeared to be a misunderstanding concerning a meeting of interested offices for the purpose of arriving at a recommendation for the balustrade design. This matter was discussed with Superintendent Anderson last Friday, and it was agreed that a meeting should be held in the near future with the three offices concerned, in order to resolve this matter.

We will make arrangements with Mr. Whitcraft and Superintendent Anderson for this meeting.

Robert G. Hall
Robert G. Hall

cc:
Superintendent, Independence

*Posted
Gmf*

H30-RHA

MAY 4 1964

Memorandum

To: Chief, EODC

From: Regional Director, Northeast Region

Subject: Historic Structures Report, Part II, (Portion)
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall

Our views on the subject report have been delayed pending having a meeting between representatives of your staff and the park. Since we understand neither group desires a meeting, in accordance with the Historic Structures Handbook we shall endeavor to resolve the question in our recommendation to the WASO.

However, before doing so we would appreciate having your staff's best effort at a reconstruction of the original historical period balustrade. We shall be glad to add the additional material to the Architectural Data Section on hand, or if you prefer, return it to your office for revision.

(Sgd.) Ronald F. Lee

cc:
Superintendent, Independence
Mr. Whitcraft

MHNelligan/gmf
General
Daily
Area

Nelligan
5/4
Posted
pmf

5/4/64

Mr. Lee:

The gist of this disagreement is:

The park wants the Independence Hall balustrade restoration to be in the historical period, in accordance with the Master Plan and the approved Historic Structures Reports, Parts I and II. The park believes that there is sufficient data to make a reasonable reconstruction.

The EODC, in its Architectural Data Section, Part II (Portion), states that there is insufficient data to make an accurate restoration of the balustrade. It then presents the more detailed data it has for the 1828 period balustrade, and based on that date presents drawings illustrating the restored/reconstructed balustrade of that period.

Before you decide what this office will recommend to the WASO, it would seem advisable to have the EODC make a similar effort to depict the historical period balustrade so that a reasonable choice can be made.


M. H. Nelligan

5/4/68

Mr. Lee:

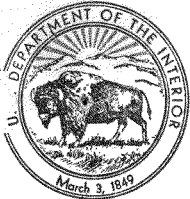
The gist of this disagreement is:

The park wants the Independence Hall balustrade restoration to be in the historical period, in accordance with the Master Plan and the approved Historic Structures Reports, Parts I and II. The park believes that there is sufficient data to make a reasonable reconstruction.

The EODC, in its Architectural Data Section, Part II (Portion), states that there is insufficient data to make an accurate restoration of the balustrade. It then presents the more detailed data it has for the 1828 period balustrade, and based on that date presents drawings illustrating the restored/reconstructed balustrade of that period.

Before you decide what this office will recommend to the WASO, it would seem advisable to have the EODC make a similar effort to depict the historical period balustrade so that a reasonable choice can be made.

M. H. Nelligan



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Independence National Historical Park
420 Chestnut Street
Philadelphia, Pa. 19106

March 2, 1964

IN REPLY REFER TO:

H30-CHA

NORTHEAST REGION MAR 4 1964		Initial and Date
Reg. Director		
Asst. to RD(PA)		
Program Coord.		
Asst. Reg. Dir-Adm		
Finance & Prop.		
Personnel		
Safety		
Asst. Reg. Dir-Civ		
History & Arch.		
Natural History		
Oper. & Maint.		
Ranger Services		
Asst. Reg. Dir-Rp		
N.P. & Rec. Area Pl.		
Plan. Serv.		
Lands & Water		

Memorandum

To: Regional Director, Northeast Region

From: Superintendent, Independence NHP

Subject: Historic Structures Report, Part II, (Portion)
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall

*Posted
mf 3/4*

In compliance with Assistant Regional Director Crouch's memorandum of January 12, we have reviewed the subject report.

From what is presented, we understand that there have been three different balustrades on Independence Hall: the original balustrade of the 1730's, a second balustrade of the 1828 period, and a third balustrade erected in 1945. The evidence establishing this is in part documentary and in part iconographic. A baluster from the second balustrade and a number of wrought iron brackets have survived and have also been evaluated.

Extensive and meticulous investigation of the roof has revealed bolt holes, screw holes, and nail holes related significantly to the second balustrade, the spacing of its members and its system of supports. While significant this evidence is fragmentary. The investigation has also revealed like evidences associated with other roof features. The investigating architects were able to explain much of this evidence, most of it related to the 1828-period balustrade. They presented such data as were explainable verbally in the report, but, for reasons of difficulty in reproducing evidence drawings, omitted the rest. These over-sized drawings and relevant photographs have been studied by the Park's historians.

With the exception of the surviving baluster and brackets, all the physical evidences considered in the report were taken from the roof sheathing of the flat laid by Joseph Rakestraw in 1789. This sheathing the architects identified during their investigation and in so doing distinguished it from Edmund Woolley's roof flat of the 1730's, still intact. This earlier flat, beneath Rakestraw's sheathing and sleepers, was examined where practicable through apertures, and from the loft below. Little of Woolley's shingle surface and sheathing surface was visible. On the portions not in view one would expect to find evidence of the eighteenth century balustrade, location of its pedestals, method of fastening it and other data necessary for an accurate restoration of this feature. Since the investigation, the flat has been reroofed without further disturbance to the earlier work. It is true as the report relates that little is certain with respect to the eighteenth century balustrade from the investigation so far undertaken.

*note
investigation
unyield*

Of the several iconographical representations of the balustrade before changes, the report accredits three engravings: the Scull and Heap of 1752, the Reed of 1774, and the Birch of 1804. They are shown to be inconsistent in details. Discussed briefly in a footnote is a fourth engraving deserving to be accredited as an on-site drawing. This is on the 1794 Benjamin Davies plan of Philadelphia, the work of Robert Scot, engraver, copperplate printer, and diesinker of the United States Mint, and Samuel Allardice, his partner. In addition, the Scull and Heap passed through several renderings, more than one of which may be considered reliable. Minor variations notwithstanding, these engravings contribute important data about the original balustrade. The report admits into evidence, what they in common show were the number of bays (10) in the original balustrade and the type of baluster they suggest (of the Tuscan order). These are the important elements to be considered in preparing reconstruction drawings. The report finds the task of reconciling these data and a formula for designing balustrades in James Gibbs' Rules for Drawing the Several Parts of Architecture (1736) insurmountable.

Essential to an understanding of the several iconographical representations of the balustrade is the front elevation of the State House presented in the 1732 architectural drawing, showing top and bottom rails, pedestals beginning with half balusters, the type of baluster the builders had in mind, and a partial pedestal at each chimney. The top rail has more than one member. Rails and pedestals are mortised and pinned at the juncture. The 1732 drawing is made to a very accurate scale. Applying the scale to the balustrade given in the drawing, a height of 4 feet 11½ inches is established, the balusters 3 feet 6 inches. The Scull and Heap, Reed, and Davies engravings all show the balustrade in like proportion to the 1732

drawing in contrast to the photographs of the 1828-period balustrade. In common they suggest a higher balustrade, one more in keeping with 10 bays than 12 bays.

Because of "frequent repairs, alterations and complete replacements," [p. 1] the original balustrade on the State House roof, and its design, failing the discovery of further evidence, have been lost. The design for its replacement, therefore, is a matter of considered judgment.

The balustrade had stood for some eighteen years before the State House had a tower. It was considered by the designer of the building to be a part of that structure and not considered in connection with a steeple. The 1732 architectural drawing shows a balustrade of four bays and the profile of the balusters. By 1735, Woolley and Tomlinson had completed the building's structural woodwork, for which they had contracted in 1732, including the "balcony," or balustrade. (See Historic Structures Report, Part II on Independence Hall, Chapter II, p. 17.) The balustrade erected by them was not a four-bay one. It has been found that deviation from details shown in this drawing were made, but in general it reveals the intentions of the men who inspired, directed, and labored over the erection of the Pennsylvania State House. As is obvious in the drawing, the State House facade presented a dignified but plain front, its cornice of the Corinthian or Composite order of architecture lacking columns, architrave, and freize. The formula of Gibbs' Rules for Drawing the Several Parts of Architecture which counted so heavily against an effort to reconstruct a 1732-type balustrade is valid only when applied to a balustrade built in conjunction with one of the orders of architecture in its entirety.

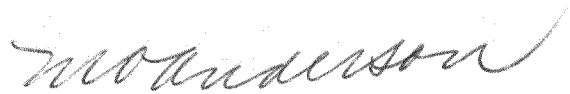
We have found that the procedure of the early eighteenth century as given by Sebastian LeClerc's A Treatise for Architecture...for Young People who would apply to that Noble Art (1724), in a chapter devoted to balustrades, balconies, and stairs, was to make "Their Dimensions and forms...various, according to the Fancy of the Workman." In effect this meant that balustrades were proportioned as the situation demanded rather than developed by rigid application of rule. In constructing the State House balustrade, working from plans such as those suggested by the 1732 drawing, Woolley and Tomlinson doubtless followed the same procedure. In arriving at the proportions to be applied, they can be expected in the absence of an order of architecture, to have judged what the building required. The eighteenth century views show the result.

At Christ Church, a building under construction at the same time as the State House, superimposed orders necessitated a balustrade proportioned to the building rather than the Doric order beneath it.

This treatment is consistent with Gibbs' practice in the church shown on plate 23 of his Book of Architecture. Significantly too, the builders of Christ Church regulated the proportion of the height to the spacing of the balusters by inserting a die next to the pedestal, at each end of the bay or range of balusters.

Having considered the foregoing factors, we conclude that restoration of a balustrade, corresponding in all essential features with the original balustrade is feasible. We disagree that reconstruction of an 1828-period balustrade perpetuating "known details initiated with the erection of the Strickland Steeple" is desirable at all. Whether or not it would be, as alleged, less of an intrusion than an eighteenth century balustrade based on what we know is, in our opinion, irrelevant to the central issue--that of the period to be observed in restoring Independence Hall. While such an existing architectural feature of the nineteenth century as the Strickland tower may be retained, and it is perfectly good Service policy to retain it, we feel this policy should under no circumstances be extended to involve restoration of nineteenth century features. This is, after all, Independence Hall; in its being it epitomizes the political experience of the nation's founders. This was Colonial, Georgian, and Eighteenth Century.

We feel strongly that the balustrade needs restudy for the purpose of designing an eighteenth century reconstruction. Further investigation of the underlying roof structure, while desirable, would be time-consuming and expensive. A successful restoration of the eighteenth century balustrade can, in our opinion, be achieved using presently available data to the best possible advantage, and we recommend that this course be adopted. Such a restoration would be acceptable until such time as the original roof can be investigated.


M. O. Anderson
Superintendent

In duplicate

cc: Chief, EODC

H30-GHA

Independence National Historical Park
420 Chestnut Street
Philadelphia, Pa. 19106

March 2, 1964

Memorandum

To: Regional Director, Northeast Region

From: Superintendent, Independence NHP

Subject: Historic Structures Report, Part II, (Portion)
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall

In compliance with Assistant Regional Director Crouch's memorandum of January 12, we have reviewed the subject report.

From what is presented, we understand that there have been three different balustrades on Independence Hall: the original balustrade of the 1730's, a second balustrade of the 1828 period, and a third balustrade erected in 1945. The evidence establishing this is in part documentary and in part iconographic. A baluster from the second balustrade and a number of wrought iron brackets have survived and have also been evaluated.

Extensive and meticulous investigation of the roof has revealed bolt holes, screw holes, and nail holes related significantly to the second balustrade, the spacing of its members and its system of supports. While significant this evidence is fragmentary. The investigation has also revealed like evidences associated with other roof features. The investigating architects were able to explain much of this evidence, most of it related to the 1828-period balustrade. They presented such data as were explainable verbally in the report, but, for reasons of difficulty in reproducing evidence drawings, omitted the rest. These over-sized drawings and relevant photographs have been studied by the Park's historians.

With the exception of the surviving baluster and brackets, all the physical evidences considered in the report were taken from the roof sheathing of the Flat laid by Joseph Rakestraw in 1789. This sheathing the architects identified during their investigation and in so doing distinguished it from Edmund Woolley's roof flat of the 1730's, still intact. This earlier flat, beneath Rakestraw's sheathing and sleepers, was examined where practicable through apertures, and from the loft below. Little of Woolley's shingle surface and sheathing surface was visible. On the portions not in view one would expect to find evidence of the eighteenth century balustrade, location of its pedestals, method of fastening it and other data necessary for an accurate restoration of this feature. Since the investigation, the flat has been reroofed without further disturbance to the earlier work. It is true as the report relates that little is certain with respect to the eighteenth century balustrade from the investigation so far undertaken.

Of the several iconographical representations of the balustrade before changes, the report accredits three engravings: the Scull and Heap of 1752, the Reed of 1774, and the Birch of 1804. They are shown to be inconsistent in details. Discussed briefly in a footnote is a fourth engraving deserving to be accredited as an on-site drawing. This is on the 1794 Benjamin Davies plan of Philadelphia, the work of Robert Scot, engraver, copperplate printer, and diesinker of the United States Mint, and Samuel Allardice, his partner. In addition, the Scull and Heap passed through several renderings, more than one of which may be considered reliable. Minor variations notwithstanding, these engravings contribute important data about the original balustrade. The report admits into evidence, what they in common show were the number of bays (10) in the original balustrade and the type of baluster they suggest (of the Tuscan order). These are the important elements to be considered in preparing reconstruction drawings. The report finds the task of reconciling these data and a formula for designing balustrades in James Gibbs' Rules for Drawing the Several Parts of Architecture (1736) insurmountable.

Essential to an understanding of the several iconographical representations of the balustrade is the front elevation of the State House presented in the 1732 architectural drawing, showing top and bottom rails, pedestals beginning with half balusters, the type of baluster the builders had in mind, and a partial pedestal at each chimney. The top rail has more than one member. Rails and pedestals are mortised and pinned at the juncture. The 1732 drawing is made to a very accurate scale. Applying the scale to the balustrade given in the drawing, a height of 4 feet 11½ inches is established, the balusters 3 feet 6 inches. The Scull and Heap, Reed, and Davies engravings all show the balustrade in like proportion to the 1732

drawing in contrast to the photographs of the 1828-period balustrade. In common they suggest a higher balustrade, one more in keeping with 10 bays than 12 bays.

Because of "frequent repairs, alterations and complete replacements," [p. 1] the original balustrade on the State House roof, and its design, failing the discovery of further evidence, have been lost. The design for its replacement, therefore, is a matter of considered judgment.

The balustrade had stood for some eighteen years before the State House had a tower. It was considered by the designer of the building to be a part of that structure and not considered in connection with a steeple. The 1732 architectural drawing shows a balustrade of four bays and the profile of the balusters. By 1735, Woolley and Tomlinson had completed the building's structural woodwork, for which they had contracted in 1732, including the "balcony," or balustrade. (See Historic Structures Report, Part II on Independence Hall, Chapter II, p. 17.) The balustrade erected by them was not a four-bay one. It has been found that deviation from details shown in this drawing were made, but in general it reveals the intentions of the men who inspired, directed, and labored over the erection of the Pennsylvania State House. As is obvious in the drawing, the State House facade presented a dignified but plain front, its cornice of the Corinthian or Composite order of architecture lacking columns, architrave, and frieze. The formula of Gibbs' Rules for Drawing the Several Parts of Architecture which counted so heavily against an effort to reconstruct a 1732-type balustrade is valid only when applied to a balustrade built in conjunction with one of the orders of architecture in its entirety.

We have found that the procedure of the early eighteenth century as given by Sebastian LeClerc's A Treatise for Architecture...for Young People who would apply to that Noble Art (1724), in a chapter devoted to balustrades, balconies, and stairs, was to make "Their Dimensions and forms...various, according to the Fancy of the Workman." In effect this meant that balustrades were proportioned as the situation demanded rather than developed by rigid application of rule. In constructing the State House balustrade, working from plans such as those suggested by the 1732 drawing, Woolley and Tomlinson doubtless followed the same procedure. In arriving at the proportions to be applied, they can be expected in the absence of an order of architecture, to have judged what the building required. The eighteenth century views show the result.

At Christ Church, a building under construction at the same time as the State House, superimposed orders necessitated a balustrade proportioned to the building rather than the Doric order beneath it.

This treatment is consistent with Gibbs' practice in the church shown on plate 23 of his Book of Architecture. Significantly too, the builders of Christ Church regulated the proportion of the height to the spacing of the balusters by inserting a die next to the pedestal, at each end of the bay or range of balusters.

Having considered the foregoing factors, we conclude that restoration of a balustrade, corresponding in all essential features with the original balustrade is feasible. We disagree that reconstruction of an 1828-period balustrade perpetuating "known details initiated with the erection of the Strickland Steeple" is desirable at all. Whether or not it would be, as alleged, less of an intrusion than an eighteenth century balustrade based on what we know is, in our opinion, irrelevant to the central issue--that of the period to be observed in restoring Independence Hall. While such an existing architectural feature of the nineteenth century as the Strickland tower may be retained, and it is perfectly good Service policy to retain it, we feel this policy should under no circumstances be extended to involve restoration of nineteenth century features. This is, after all, Independence Hall; in its being it epitomizes the political experience of the nation's founders. This was Colonial, Georgian, and Eighteenth Century.

We feel strongly that the balustrade needs restudy for the purpose of designing an eighteenth century reconstruction. Further investigation of the underlying roof structure, while desirable, would be time-consuming and expensive. A successful restoration of the eighteenth century balustrade can, in our opinion, be achieved using presently available data to the best possible advantage, and we recommend that this course be adopted. Such a restoration would be acceptable until such time as the original roof can be investigated.

M. O. Anderson
Superintendent

In duplicate

cc: Chief, EODC

Northeast Region
143 South Third Street
Philadelphia, Pa. - 19106

H30-CHA

JAN 10 1964

G. Franey 1/10
Posted Dmf

Nelly
1/11

Memorandum

To: Superintendent, Independence
Assistant
From: Regional Director
Subject: Historic Structures Report, Part II (Portion)
Architectural Data Section, Restoration of Roof
Balustrade, Independence Hall

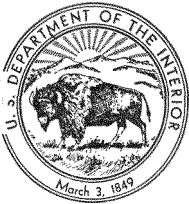
Enclosed is a copy of the subject report prepared by the EODC.

Will you please let us have your comments on this report as soon
as possible.

J. Carlisle Creuch

Enclosure

GMFraney
General
Daily
Area



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Eastern Office, Design and Construction
Philadelphia, Pa. - 19106

IN REPLY REFER TO:
H30-H

December 31, 1963

Memorandum

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Architectural Data Section,
Part II (Portion), Independence Hall, Restoration of
Roof Balustrade, Independence

Enclosed for your review and distribution are three copies of the subject report which was recommended by Acting Chief H. Reese Smith this date. A copy has been retained by this office.

~~Robert~~ E. Smith

By: _____

Donald F. Benson, Acting

Enclosure

cc:
Assistant Director, Design and Construction
Superintendent, Independence

[illegible]

HISTORIC STRUCTURES REPORT

PART II (PORTION)

ARCHITECTURAL DATA SECTION

ON

INDEPENDENCE HALL

Restoration of Roof Balustrade

Independence National Historical Park

Prepared by
Gary Dysert
Architect
January 1964

UNITED STATES DEPARTMENT OF THE INTERIOR
Eastern Office, Design and Construction
Historic Structures Branch

NATIONAL PARK SERVICE
143 South Third Street
Philadelphia

HISTORIC STRUCTURES REPORT

PART II (PORTION)

ARCHITECTURAL DATA SECTION

ON

INDEPENDENCE HALL

Restoration of Roof Balustrade

Independence National Historical Park

A P P R O V A L S H E E T

RECOMMENDED

M.O. Anderson
Superintendent

Date 9/8/64

H. Russell Smith
Chief, EODC
Acting

Date 12-31-63

Ronald F. Lee
Regional Director, Northeast Region

Date 10-27-64

APPROVED

Richard T. Montgomery
acting Director, Des. & Constr.
Asst.

Date 10-30-64

INTRODUCTION

This report is an attempt to trace the complicated evolution of the Independence Hall roof balustrade. The problem of recreating the appearance of this important element is compounded by the frequent repairs, alterations, and complete replacements of the balustrade.

The most recent balustrade (a simplified version of earlier balustrades) has been dismantled and removed from the flat in order to facilitate the restoration of the roof (see Historic Structures Report, Part II, Independence Hall Restoration of Roof).

THE EIGHTEENTH CENTURY BALUSTRADE

"BALUSTRADE, an assemblage of one or more Rows of little turn'd Pillars, called Balusters, made of Marble, Iron, Wood, or Stone, of a Height fit for a Man to rest his Elbows upon, fixed upon a Terras, or the Top of a Building."¹

A balustrade on the flat or "Top" of Independence Hall first appears in the only known pre-tower drawing of the building.² However, this drawing only suggests the existence of this feature. The fairly

¹The Builder's Dictionary; London 1734, Vol. 1, subjects listed alphabetically.

²Unidentified drawing of the State House. Original in John Dickinson papers, Historical Society of Pennsylvania. INHP Neg. No. 5749.

reliable published eighteenth century views of the State House show the balustrade in finished form.³ Although these eighteenth century views offer the only known clues as to the appearance of the original balustrade, their interpretation should be circumspect. The lack of more substantial evidence should not lead to a literal translation of these images.

Lacking a complete State House iconography, only three views, by Scull & Heap, Reed, and Birch will be considered in evaluating the appearance of the eighteenth century balustrade. These views were apparently drawn, engraved and printed in Philadelphia (see Appendix).

A survey of other eighteenth century views indicates that they were not drawn, engraved or printed in Philadelphia. Instead they appear to be copied one from another perpetuating and magnifying their errors. A definitive iconography will be necessary in order to determine the credibility of these numerous views of the State House.

Each of these three views illustrate the major architectural elements (windows, belt courses, panels, rusticated quoins, cornice, roof, chimneys and balustrade) of the north wall in their proper relationship. With respect to details of these elements (including the balustrade), the views are inconsistent.

³A voucher for work done on the State House during the 18th century verifies the existence of the balustrade: "Taking up the Balustrad on the top of the house and fastening them down after the Copper was Lay^d and Repairing the Posts &c." Joseph Rakestraw Bill of Carpenters Work, Folder N, No. 10, State House Maintenance Voucher 1789, Independence Square, Pennsylvania Historical and Museum Commission, Division of Public Records, Harrisburg.

Scull & Heap and Reed each show a ten bay balustrade while Birch's balustrade has only six bays.

Heap shows five balusters per bay, Reed four balusters per bay and Birch six balusters per bay.

Scull & Heap and Reed show the top and bottom rail to be "broken" around the piers while Birch shows a continuous moulded top rail (Birch did not clearly delineate the bottom rail). Birch's several variances on the earlier views may suggest a replacement of the balustrade (the steeple only lasted 30 years).⁴

THE PHYSICAL EVIDENCE

In detail, little is certain with respect to the eighteenth century balustrade. A meticulous examination of surviving 1789 tongue and groove roof sheathing has been inconclusive (see NHP-IND 3337). The only remaining traces of balustrade posts indicate a 12 bay balustrade which was definitely in use before 1850, but this does not preclude the use of a different system in the eighteenth century.⁵

The various balustrades have apparently been secured to the flat with wrought iron brackets. Two different sets of six locations

⁴Perhaps this balustrade was replaced as part of the extensive re-furbishing of the building during the 1780's with a simpler balustrade such as Birch indicated.

⁵See the earliest known photograph of Independence Hall: W. & F. Langenheim tabotype dated June 1850. INHP Neg. No. 528 from original at Missouri Historical Society.

for these brackets have been discerned. The positioning of the earlier set of brackets (especially the two which straddled the original turret) indicates that they probably date from before the removal of the turret in the 1750's. A pre-1789 date is indicated by three bolt holes at one bracket location but only one hole penetrates the 1750 sheathing leaving the other two holes to be made after the 1789 sheathing was added. The location of the later set of brackets and the irregular spacing of a left-over bracket in the east corner of the flat and dormer suggest the continued use of the original wrought iron brackets. Therefore it is possible that these brackets date from the 1730's (see EODC Neg. No. 4356).

— where is
photo —

A CONJECTURAL EIGHTEENTH CENTURY BALUSTRADE

The Scull & Heap and Reed views suggest a balustrade design as found in the Rules for Drawing the several Parts of Architecture by James Gibbs.⁶ According to Gibbs and using a ten bay balustrade (as shown by Scull & Heap and Reed) together with the known length of the

⁶In comparing the proportions and designs for details found in James Gibbs, Rules for Drawing the several Parts of Architecture, London 1736, 2nd Edition, with existing original details in Independence Hall it can be said that Gibbs was probably the prime source for these details. Therefore it is possible that Gibbs was also the source for the balustrade design. The extent to which Gibbs or other books were used as sources for design details will be taken up in a more appropriate section of the Architectural Section, Part II on Independence Hall.

balustrade (102'-1" between the chimneys) we find that the proportions of the balustrade (including the number of balusters per bay) are a function of the height of the balustrade. Further, the height of the balustrade should be such that it will yield an integer of balusters.⁷

For example, a thirteen baluster bay (12 whole balusters and a half baluster at each pier) yields a 3'-2-1/8" high balustrade which accommodates the above wrought iron brackets by allowing them to be screwed directly to the top and bottom rails. This balustrade is so disproportionately small (with the rest of the building) that it leads to the conclusion that either larger brackets were used during the 18th century or some other means was used to affix the balustrade to the bracket.

A ten baluster bay (9 whole balusters and a half baluster at each pier) yields a 3'-11-1/2" high balustrade which is similar to the height of the recent balustrade.

The above examples (from Gibbs) illustrate the range of balustrades which might have been used, if such a source were followed.

Therefore the task of recreating an eighteenth century balustrade becomes one of selecting one of the infinite possibilities that could be derived from the interpolation of the eighteenth century views, Gibbs (or similar publications) and the existing building.

⁷By integrating the lowermost balustrade on Plate LXII, the Tuscan order on Plate I, and Plate III of Gibb's Rules for Drawing the several Parts of Architecture together with a given ten bay balustrade with a length of 102'-1" it is found that:

$$\text{the height of the balustrade in feet} = \frac{50.225}{\text{integer balusters} + 2.809}$$

THE NINETEENTH CENTURY BALUSTRADE

The meticulously detailed engraving, by Alexander Lawson, after Krimmel's painting "Election Day-1815" clearly illustrates that by 1815 the State House balustrade had been removed. Apparently the balustrade was not replaced until 1828 when the steeple was rebuilt.⁸

The reconstruction of the steeple with its own balustrade and a new balustrade on the flat, together with their similarities (see McClees' 1856 photograph of Independence Hall, EODC Neg. No. 3980) suggests that *note: not definite* Strickland was responsible for the roof balustrade as well as the steeple. *not in report*

About 1889 F. Gutekunst Co. photographed Independence Hall (INHP Neg. No. CN25796) with a different (or at least revised) balustrade. *not in report*

Some time after 1856 the moulding on the top rail had been eliminated, a

⁸In addition to Krimmel's view of 1815 (INHP Collection SN1034, INHP Neg. No. CN17074) three other views show the State House during this period without a balustrade: "State House at Philad. 1825" Historical Society of Pennsylvania, INHP Neg. No. 7346; "Parade Passing Independence Hall, 1821" John Lewis Krimmel, Springfield Art Museum, Springfield, Mo. INHP Neg. No. 7662 and "State House, Philadelphia 1828" (drawn by Geo. Strickland) from C. G. Childs, Views in Philadelphia and its Environs from original Drawings taken in 1827-30 INHP Collection Catalog No. 1139. Also there are at least two views which show the State House during this period with a balustrade: An inset from This Plan of the City of Philadelphia and Environs is Respectfully Inscribed to William Sansom, Esq^r: who has contributed more than any other Citizen to Embellish the same, by Number, Beauty and Uniformity of his Buildings, Engraved & Published by Robert Desilver, Jan 17, 1819, original at Library of Congress, INHP Neg. No. 1546A and a toile apparently printed contemporary with "General LaFayette's arrival at Independence Hall Philad^a Sep^t 28, 1824" by the Germantown Print Works (INHP Museum Catalog No. 2761). A comparison of these two views with the inset on the map To Thomas Mifflin Governor and Commander in Chief of the State of Pennsylvania. This Plan of the City and Suburbs of Philadelphia is respectfully inscribed by the Editor 1794 A.P. Folie del and R. Scot & S. Allandice sculpsit (INHP Collection SN9001, INHP Neg. No. 1546B), leaves little doubt that these two views were taken directly from the 1794 view.

post was mounted against each chimney to receive the balustrade and the entire balustrade was leveled along the sagging flat. Another photograph taken during the same period, 1887-89 (EODC Copy Neg. No. 3837) shows that the revised balustrade did not return to the tower on the south side at the dormer. Instead a simple rail (such as that shown in INHP Neg. No. CN18949) connected the tower with the balustrade.⁹

A photograph dated "5-9-22" (see INHP Neg. No. CN18949) shows the balustrade undergoing extensive repairs. By that time the top rail had been covered with sheet metal. This photograph and several others taken at various times (INHP Neg. Nos. 4100, 8289 and 8290) show the six wrought iron brackets in place.¹⁰ The relative position as shown in the photograph compares with the "later" set of holes found in the 1789 roof sheathing.

Finally in 1945 the balustrade and its wrought iron brackets

⁹Birch's 1799 view "Back of State House" (INHP Neg. No. CN25757) shows the balustrade returning to the tower. This balustrade was removed by 1815. There is no known evidence as to whether or not the 1828 balustrade returned to the tower.

¹⁰Note in these photographs two types of balustrade brackets. The earlier type is bolted through the flat, is of heavier construction and the double twist in the upper arm makes it stylistically different than the later type of bracket. The later type of bracket was just fastened to the flat with three wood screws. The later brackets probably date from between 1856 and 1889 when the balustrade was leveled and may have needed the support of additional brackets. Fortunately three early and eight of the later wrought iron brackets had been put into storage after their removal in 1945.

were replaced with an even simpler balustrade supported with angle-iron brackets at each post.¹¹ The simple rail connecting the tower with the balustrade was replaced with a balustrade which continued around the corner and extended to the tower.

The 1945 balustrade and angle iron brackets were removed in 1963 when the lead coated copper roof on the flat was replaced with new copper sheeting (see Historic Structures Report, Part II, Independence Hall Restoration of the Roof). The decayed condition of the 1945 balustrade required that it be replaced rather than reinstalled after the completion of the new roof.

TOWARD A SOLUTION: THE 1828 BALUSTRADE

Fortunately the appearance of the Strickland era balustrade is much less elusive than the appearance of the eighteenth century balustrade. There is evidence available which permits a reconstruction of the 1828 balustrade in detail. McClees' 1856 photograph (see EODC Neg. No. 3980) illustrates the similarity of both the balustrade on the flat and the steeple balustrade, and it definitely shows a 12 bay balustrade with 8 full balusters per bay (and no half balusters).¹² It can be discerned

¹¹See folder titled "Independence Hall-Repairs-Tower & Etc. 1944-45" in INHP Museum files for Working drawing (NHP-IND 9088) and Specifications for "Reconstruction of Wood Balustrades on Roof Deck of Independence Hall" April 25, 1944.

¹²It is interesting to note that a year after the Langenheim Brothers published their photograph of the State House, Julio Rae published in 1851 the Panorama of Chestnut Street (INHP Collection Catalog No. 714). Langenheim photographed a 12 bay balustrade while Rae illustrated the State House with a ten bay balustrade (see INHP Neg. No. 8199H).

that only the top and bottom rails (without a post or other terminating member) abutt the chimney.¹³ Since the two balustrades appear to be identical in detail, surviving evidence pertaining to the steeple is helpful in supplying the details for the balustrade on the roof. These include 1898 drawings and three fragments of woodwork given to Independence National Historical Park (INHP Museum Accession No. 179) by Harry Gouse in 1957. These apparently are 1828 steeple fragments which include a section of top rail, bottom rail and pier. They were purportedly taken from the steeple during the 1897-98 restoration.¹⁴ The two piece, wooden top rail is pitched both ways on top, is beaded, and has a coved moulding. It is mortised to receive the balusters.

¹³ Pertinent physical evidence, if any, on the chimneys was lost when the chimneys were rebuilt in 1942.

¹⁴ According to an article in the August 21, 1956 Philadelphia Inquirer the wood sold at auction on August 21, 1956 was removed from Independence Hall during the 1897-8 restoration. In 1912 Samuel S. Reeves (Independence Hall Superintendent 1892-1908) sold this wood to John S. McQuade who formed the Wolf Art Company for the purpose of making relics from the wood. Clarence and Walter M. Deisroth bought the Wolf Art Company in 1924. In 1956 Deisroth declared bankruptcy and receiver Edward A. Kallick liquidated the assets at an auction on August 21, 1956. At this auction Henry Gouse bought the wood for \$2200.00. On February 28, 1957 Gouse gave five samples of this wood to the Independence National Historical Park Museum (Accession #179). See NHP-IND Neg. Nos. 3668, 69, 70, 71 and 72. Examination of these fragments in consideration of the detailing, construction with the use of large single pieces of wood, and the use of a crude or early cut nail all indicated that these fragments could be original with Strickland's Steeple. Also what is apparently a full size measured drawing, dated 8/25/98, (see NHP-IND 9282 sheet 2) of the Steeple balustrade illustrates members identical to the Gouse samples.

Original recommendation

led into the one piece bottom rail which pitched
-piece pier (except for attached mouldings) had
ldings along three sides of the panel. The bottom
hed for drainage.
ently found in the INHP maintenance shop (see EODC
differing slightly from the existing balusters
to the balusters in the 1922 photograph (see INHP
lier photographs including McClees' 1856 view in-
ster is a direct decendent of the 1828 balusters.
complete and accurate description of the 1828
t can be assembled (see attached drawings).

RECOMMENDATION

nd that the existing decayed and dismantled balustrade
be replaced with a reconstruction of the 1828 balustrade. This proposed
reconstruction (see attached drawings) perpetuates known details initiated
with the erection of the Strickland Steeple and represents less of an
intrusion than that posed by a conjectural eighteenth century balustrade
based on the little evidence uncovered to date.

see rev. Page 10 x 11
which has not been conjectured
as yet!

Revised Recommendation

The balusters were toe-nailed into the one piece bottom rail which pitched both ways on top. The one-piece pier (except for attached mouldings) had a recessed panel with mouldings along three sides of the panel. The bottom edge of the panel is pitched for drainage.

A baluster recently found in the INHP maintenance shop (see EODC Neg. No. 4357) although differing slightly from the existing balusters appears to be identical to the balusters in the 1922 photograph (see INHP Neg. No. CN18949). Earlier photographs including McClees' 1856 view indicates that this baluster is a direct decendent of the 1828 balusters. Thus a comparatively complete and accurate description of the 1828 balustrade on the flat can be assembled (see attached drawings).

RECOMMENDATION (Revised August 1964)

It would be most desirable to reconstruct the original roof balustrade but the architectural details of that feature are not known at the present time. Therefore we recommend a reconstruction of the 1828 balustrade (see attached drawings). In 1828, the architect William Strickland was engaged to "restore" the "ancient" steeple. Both the steeple balustrade and roof balustrade were "restored" along the same lines. The details of the 1828 roof balustrade are known including the 1) number of bays, 2) number of balusters per bay, 3) balustrade height, 4) baluster design, 5) design of rails and piers. Strickland's

| Roof?
has many

11.

sources are not known, but it appears that he conscientiously attempted to recapture the eighteenth century in character if not in detail. Because Strickland's balustrade is the most applicable physical evidence presently available, we recommend reconstruction of the 1828 "restored" balustrade at this time.

APPENDIX

Scull and Heap's view of the State House was published as a part of A Map of Philadelphia With a Perspective View of the State-House (John Carter Brown Library, INHP Neg. No. 1534B) by N. Scull and G. Heap, L. Hebert Sculp. Nicholas B. Wainwright in his article, "Scull and Heap's Map of Philadelphia," The Pennsylvania Magazine of History and Biography, Vol. 81 (1957), dates the publication of this map between May 28 and June 4, 1752. Wainwright credits George Heap with this early drawing of the State House (which was engraved by Lawrence Hebert, apparently then working in Philadelphia). Thomas Penn criticized the view, accusing Heap, probably because of his unorthodox rendering of the steeple, of being "ignorant of the Rules of Perspective" (Wainwright, op.cit., p. 71).

Reeds view of the State House is an inset to the map entitled To the honorable House of Representatives of the Freemen of Pennsylvania this map of the city and liberties of Philadelphia, with the catalogue of purchasers is humbly dedicated by their most obedient humble servant John Reed. James Smithers sculp. Printed by Tho. Man (Free Library of Philadelphia, EODC Neg. No. 4355). James Smither (engraver and seal cutter active in Philadelphia 1768-78, 1786-97)¹ engraved the map, which, according to an item in the Pennsylvania Gazette can be dated 1774: "to the Subscribers for the Plan or Maps of the City and Liberties of Philadelphia...I have the Pleasure to inform you that the Maps are now

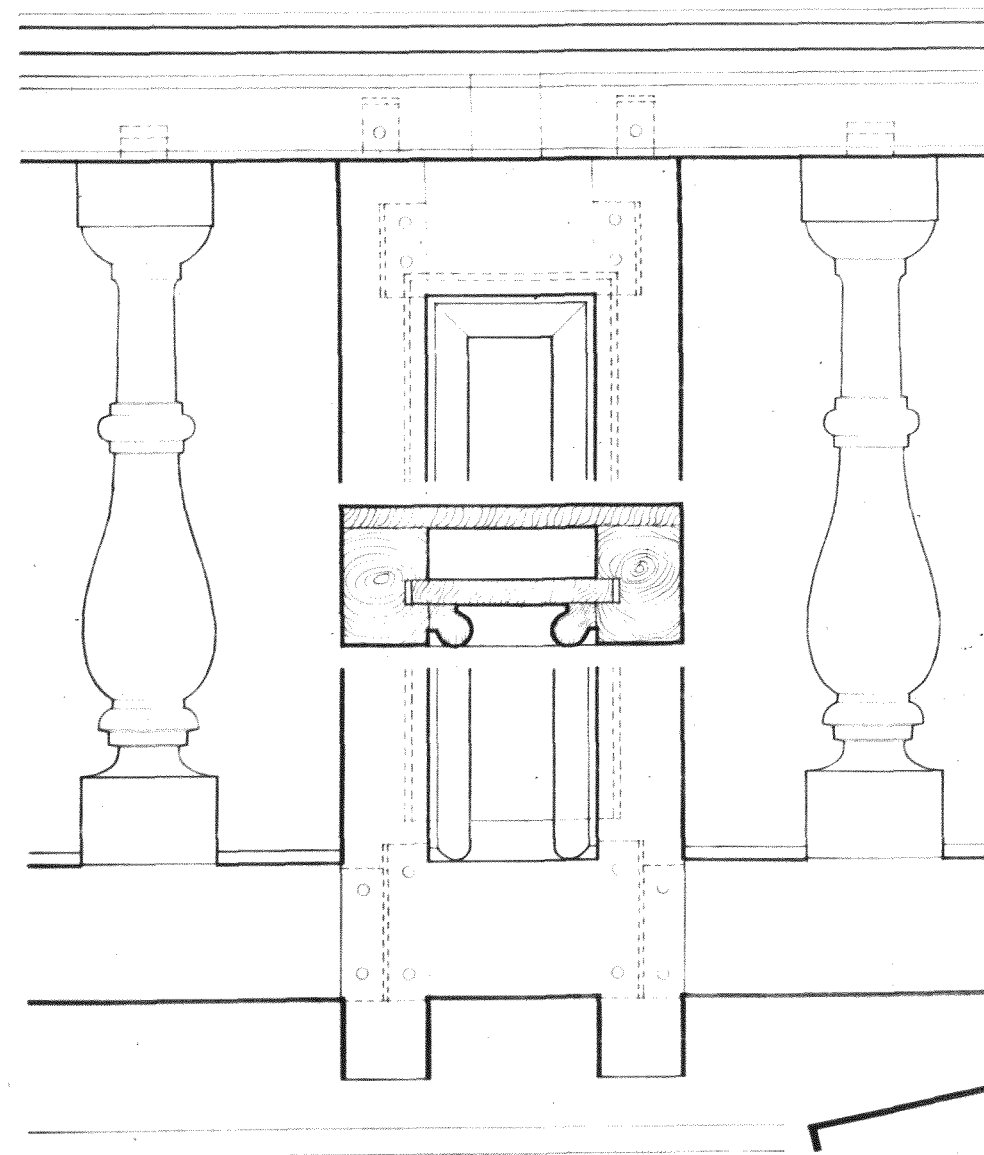
¹George C. Groce and David H. Wallace, The New-York Historical Society's Dictionary of Artists in America 1564-1860 Yale University Press 1957.

ready to be delivered...July 6, 1774 John Reed." From "Notes and Queries," The Pennsylvania Magazine of History and Biography, Vol 38 (1914), 246.

Birch's view of the State House titled "Old State-House, Congress Hall and Town-Hall" (INHP Collection Catalog No. 1391, INHP Neg. No. 6325) is Plate No. 15 from William Russell Birch; The City of Philadelphia, in the State of Pennsylvania North America; as it appeared in the Year 1800 Second Edition 1804. See Martin P. Snyder "William Birch: His Philadelphia Views;" The Pennsylvania Magazine of History and Biography, Vol 73 (1949), 271-315. Birch (1755-1834), a miniaturist, enamel painter, engraver, and etcher, was active in Philadelphia 1794-1834.²

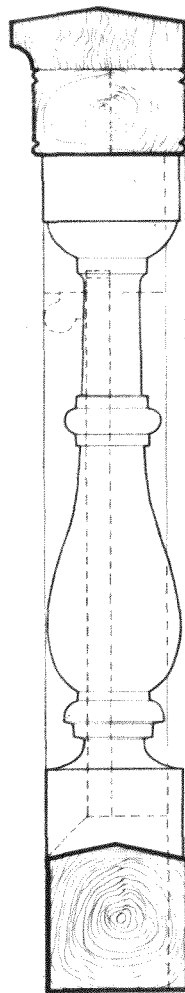
²Ibid.

TOP AND BOTTOM RAILS ARE COPIED FROM ASSUMED 1828 RAILS OF STEEPLE BALUSTRADE (SEE INHP COLLECTION ACCESSION NO. 179) AND VERIFIED BY McCLEES' 1856 PHOTOGRAPH (EODC NEG. NO. 3980)



TYPICAL PIER

PIERS BASED ON McCLEES' 1856 PHOTOGRAPH OF INDEPENDENCE HALL (EODC NEG. NO. 3980) AND FRAGMENT OF ASSUMED 1828 STEEPLE BALUSTRADE PIER (SEE INHP COLLECTION ACCESSION NO. 179).



TYPICAL SECTION (SECTION THROUGH PIER SHOWN DOTTED)

DESIGN OF THE ROOF BALUSTRADE

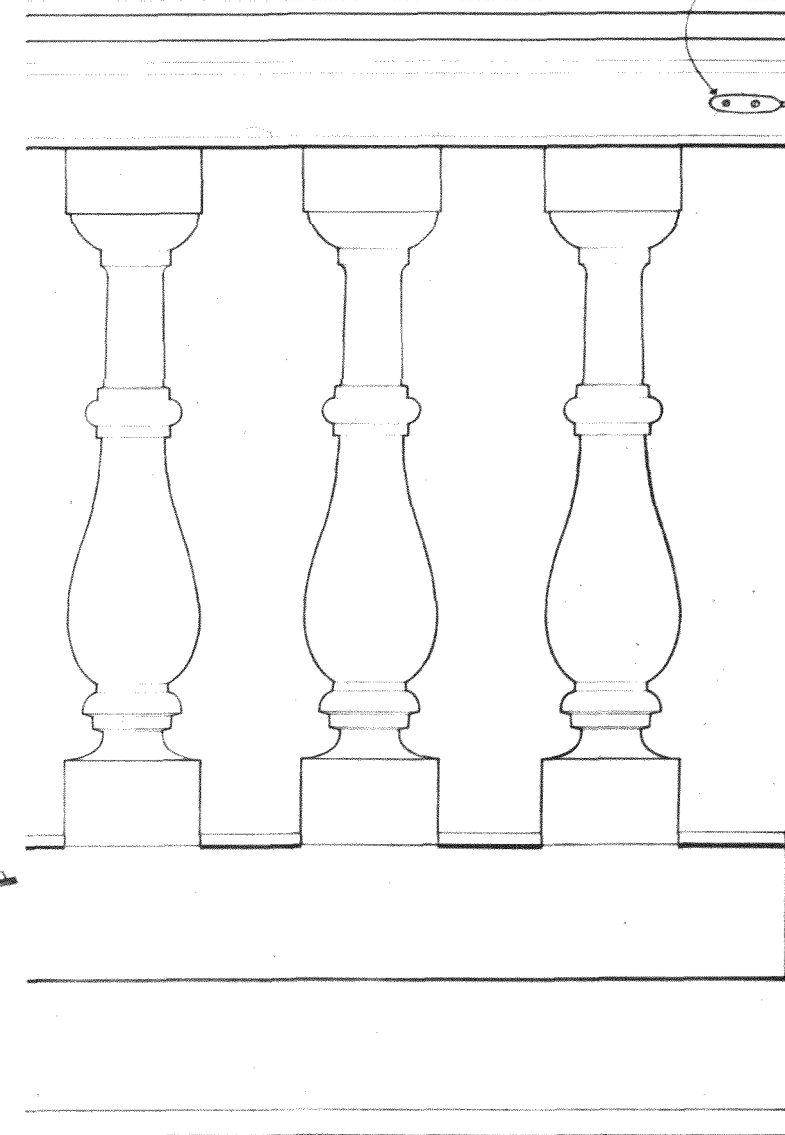
BALUSTRADE BASED ON McCLEES' 1856 PHOTOGRAPH (EODC NEG. NO. 3980) HAS EQUAL SIZED BAYS WITH 8 FULL, EQUALLY SPACED, BALUSTERS PER BAY. BETWEEN EACH BAY IS A PIER, EXCEPT WHERE THE BAY ABUTTS THE CHIMNEY. THE BALUSTRADE HAS 12 BAYS AND 11 PIERS ON THE NORTH EAVE OF THE FLAT. ALONG THE SOUTH EAVE OF THE FLAT ARE 5 BAYS AND 5 PIERS ON EACH SIDE, OF THE DORMERS. ALONG EACH EAVE OF THE DORMERS IS ONE BAY WITH A PIER AT EACH END.

BALUSTERS BASED ON SURVIVING BALUSTER (SEE SHEET 2), REMOVED IN 1945, WHICH APPEARS IDENTICAL TO THE BALUSTERS SHOWN IN McCLEES' 1856 PHOTOGRAPH (EODC NEG. NO. 3980) AND IS A DIRECT DESCENDANT OF THE 1828 BALUSTERS.

EXISTING WROUGHT IRON BRACKET, POSSIBLY ORIGINAL (c.1730), REMOVED IN 1945. EARLY 20TH CENTURY PHOTOGRAPHS SHOW THE SIX "ORIGINAL" BRACKETS IN SECOND OF TWO SETS OF LOCATIONS ON THE FLAT. SEE ROOF PLAN ON SHEET 2 AND NHP-IND 5337. SEE WORKING DRAWINGS FOR RESTORATION OF ROOFS ON INDEPENDENCE HALL. NHP-IND 5310 SHEET 3, DETAIL F FOR DETAILS OF APPROVED BRACKET CONNECTIONS AND FLASHING.

BALUSTRADE LEVEL - HEIGHT OF FOOT VARIES WITH IRREGULARITIES IN ROOF LEVEL.

WROUGHT IRON ANCHOR IS TYPICAL FOR PERIOD AND IS SPECIFICALLY COPIED FROM 1831 ANCHOR FOUND IN ASSEMBLY ROOM (SEE EODC NEG. NO. 3338)

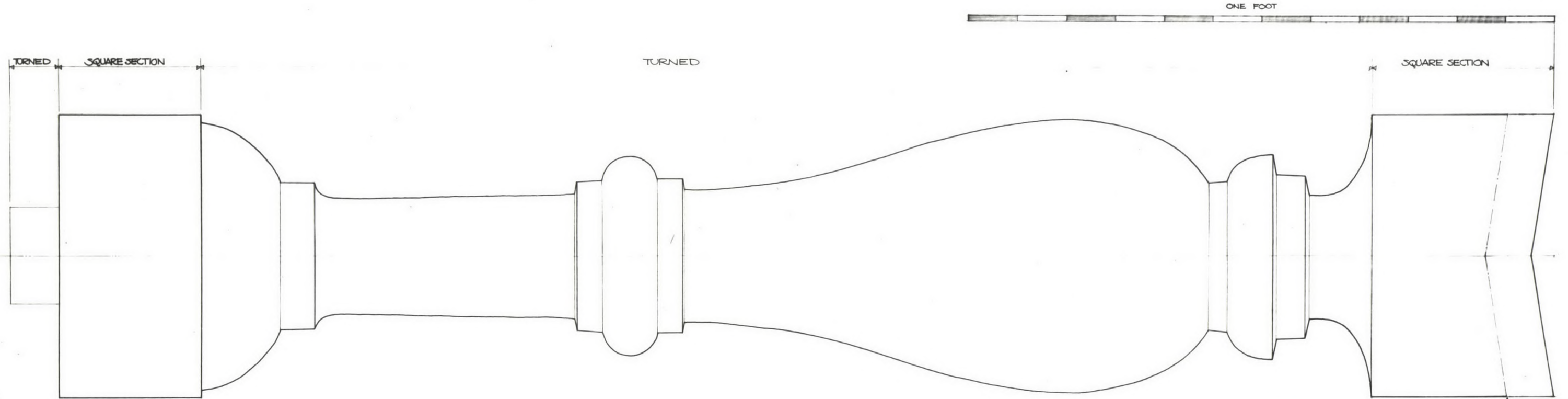


TYPICAL ELEVATION AT CHIMNEY

LACK OF ARTICULATION AT CHIMNEYS IS SHOWN IN McCLEES' 1856 PHOTOGRAPH (EODC NEG. NO. 3980). PERTINENT PHYSICAL EVIDENCE, IF ANY, ON THE CHIMNEYS WAS LOST WHEN THEY WERE REBUILT IN 1942.

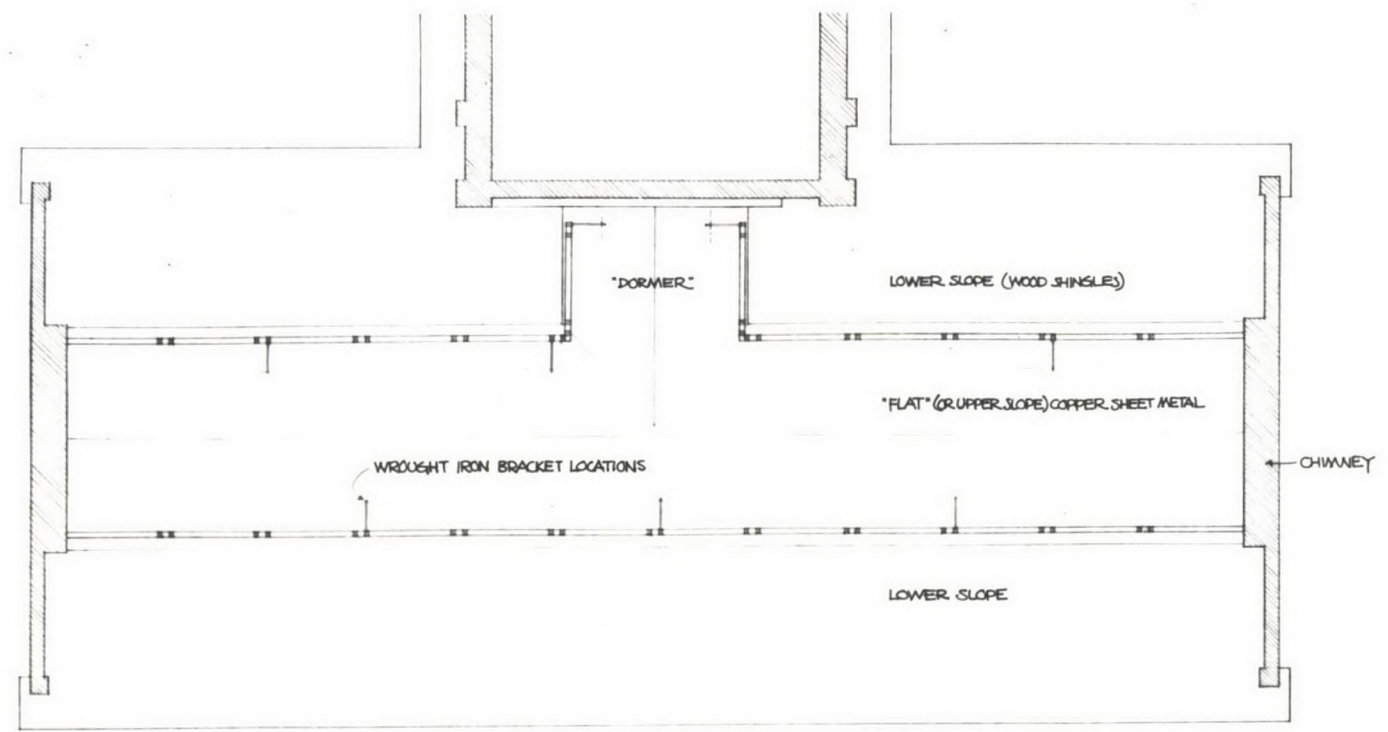
PRELIMINARY DRAWING
SCALE 3" = 1'-0"

RECOMMENDED	DATE	MARK	DESCRIPTION OF REVISION	DATE	INITIAL
			UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DESIGN AND CONSTRUCTION PREPARED BY EASTERN OFFICE DESIG.	REGION NORTHEAST	REVISOR
			RECONSTRUCTION OF ROOF BALUSTRADE	POP NO. 8-146	
			INDEPENDENCE HALL LOCATION WITHIN PARK INDEPENDENCE NATIONAL HISTORICAL PARK - PENNSYLVANIA NAME OF PARK	DRAWING NO. NHP-IND 3340	
APPROVED					DATE 20 DEC 68



APPARENT 1828 BALUSTERS' LENGTH IS SHOWN. BOTTOM OF EXISTING BALUSTER WAS APPARENTLY CUT OFF AS SHOWN BY BROKEN LINE.

MEASURED DRAWING OF SURVIVING BALUSTER (FULL SIZE)
REMOVED IN 1945, APPEARS IDENTICAL TO THE BALUSTERS SHOWN IN McCLEES' 1866 PHOTOGRAPH (BDC NEG. NO. 9380) AND EVIDENTLY IS A DIRECT DESCENDANT OF THE 1828 BALUSTERS. INHP MUSEUM ACCESSION NO. 1174



ROOF PLAN 1/8" = 1'-0"
NOTE POSITION OF BALUSTRADE BRACKETS. EXISTING ORIGINAL HOLES FOR BRACKET BOLTS ARE TO BE REUSED AND WILL DETERMINE EXACT LOCATION OF BRACKETS. BALUSTRADE ALONG EAVES OF "DORMER" IS CONJECTURAL. LOCATE BRACKETS TO FIT END PIERS ON "DORMER."

PRELIMINARY DRAWING

SCALE: AS NOTED

RECOMMENDED	DATE	MARK	DESCRIPTION OF REVISION	DATE	INITIAL
			UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DESIGN AND CONSTRUCTION PREPARED BY EASTERN OFFICE	REVISOR	REVISION
			RECONSTRUCTION OF ROOF BALUSTRADE TITLE OF DRAWING INDEPENDENCE HALL LOCATION WITHIN PARK INDEPENDENCE NATIONAL HISTORICAL PARK - PENNSYLVANIA NAME OF PARK		
APPROVED					



ORIENTATION

PREPARED
DESIGNED
CHECKED
DRAWN
1829
CHECKED

DATE
INITIAL
REVISOR
REVISION
REGION
NORTHEAST
POP. NO.
E146
SHEET 2 OF 2
DRAWING NO.
NHP:INDE
3340
DATE 26 DEC 63