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historic structure report architectural data section

september 1983

## DELAWARE WATER GAP

CHARLES S. PEIRCE HOUSE



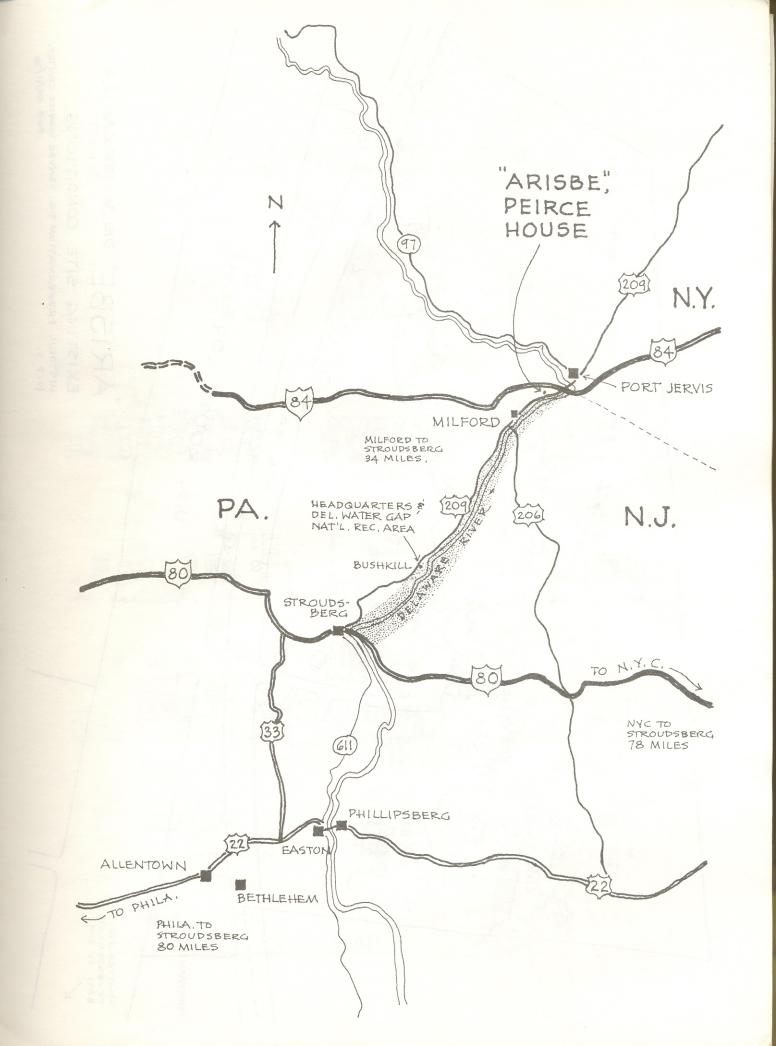
NATIONAL RECREATION AREA / PENNSYLVANIA

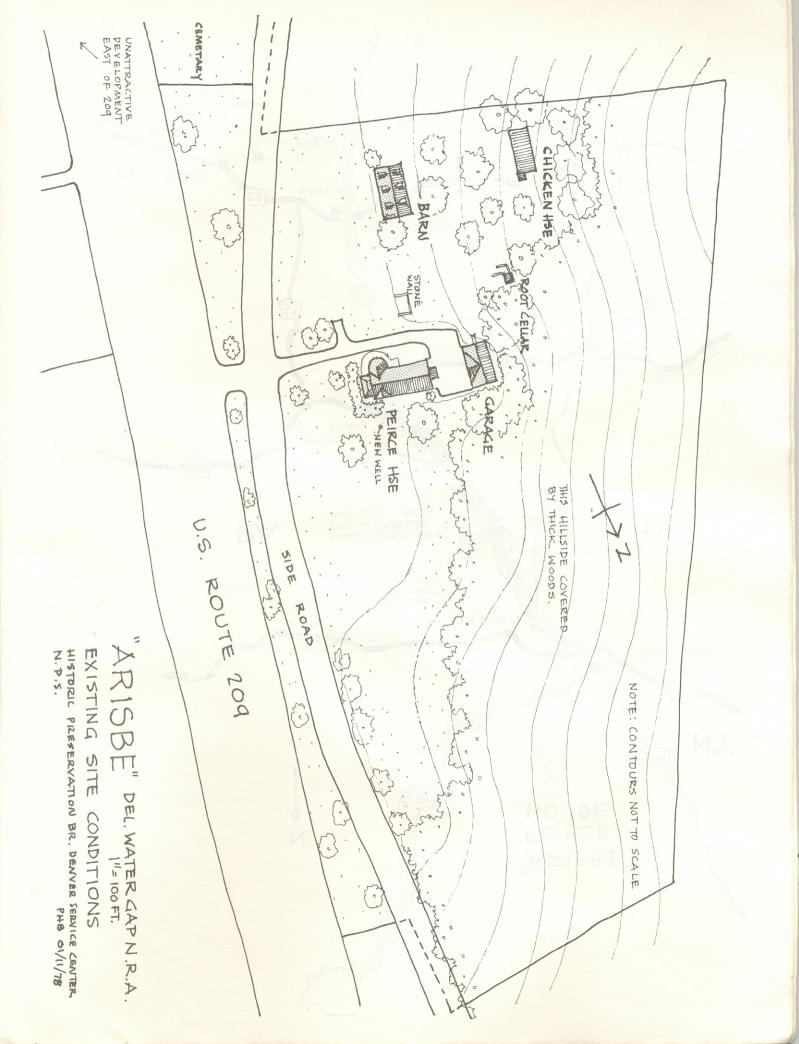
# ARCHITECTURAL DATA SECTION CHARLES S. PEIRCE HOUSE DELAWARE WATER GAP NATIONAL RECREATION AREA PENNSYLVANIA

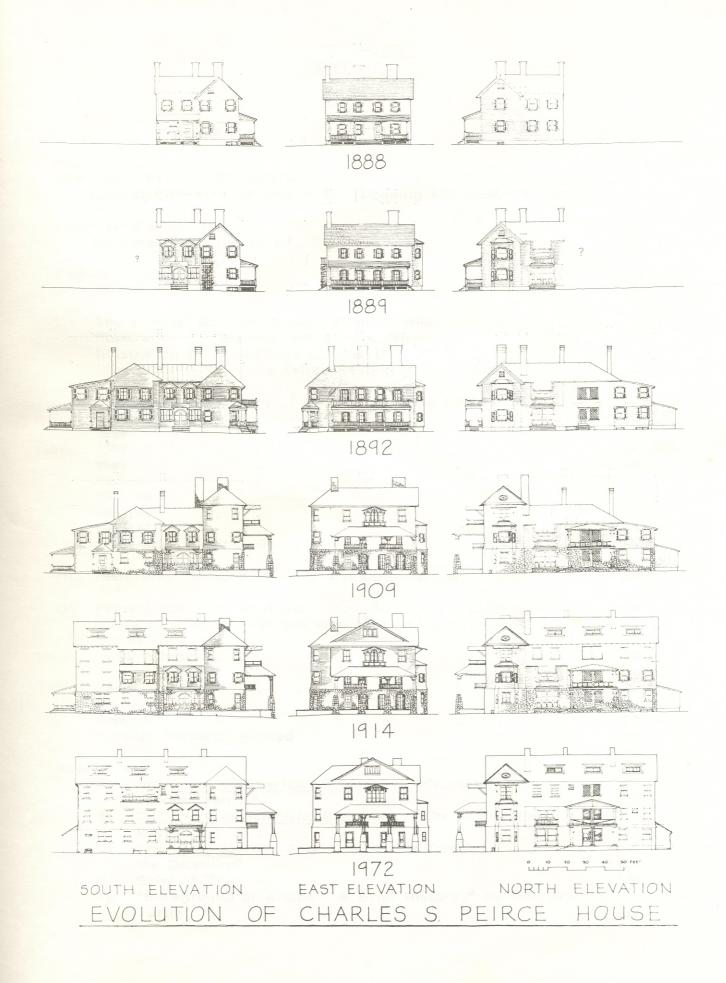
Prepared By

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DENVER SERVICE CENTER
MID-ATLANTIC/NORTH ATLANTIC TEAM
BRANCH OF CULTURAL RESOURCES
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR
DENVER, COLORADO







## CONTENTS | RATE DESCRIPTION OF STREET OF STREE

			Page	Number
Мар	Clan of Second Floor, bost 1997 - Anne Description	. 6 2 3		ii
Site	Plan - Existing Conditions	Ď Ве	sig .	-111
	ution of Charles S. Peirce House (Drawing 620/28000)	ya .		iv
A des	inistrativa Data			
Adm	Inistrative Data	•		1
	Package Estimating Detail.	•	•	
Architectural Data				
AICI	Introduction			4
	and Color Studies of Learning Triguess	•	•	4
1.	The Peirces' Move to Milford, Pennsylvania	. 111	99	7
	Illustration 1 - Charles and Juliette Peirce	tpolk	18	14
	Illustration 2 - The House c. 1892-1907	.10 t	e.i	16
	Illustration 3 - Juliette Peirce Resting in Her Room			18
	The full of the main house was reclably s			
11.	The Structural History of the Peirce House (including			
	sketch plans and elevations)			20
	1854			20
	1889			28
	1891			36
	1907-09	••		46
	1911-14			52
	1914-34			62
	1936-72			63
	Illustration 4 - The House in 1976			65
111.	History of "Arisbe" Grounds and Outbuildings .			67
IV.	Procent Condition of House Chaunds and Outhwildings			00
IV.	Present Condition of House, Grounds, and Outbuildings House (including annotated structure and utility plans)		•	69
	Grounds	•	•	70
	Outbuildings	•	• 0	87
	Outbuildings		india	89
٧.	Recommendations			92
	House			92
	Grounds			93
	Further Research Needed	•,		93
Anna	endices			
Appe				
				100
	Sanders Peirce"		· har	106
	Pairce" Diography, "Charles Sande	1.2		112
	Peirce"	•	· Whe	113
				121
	the Delaware"	•		121 126
	<ul><li>D. Brief of Title</li></ul>	cton		120
	Tuttle	31011		131

_	Sketch Plan of Second Floor Hall and Sitting Room.			150
1.	1. Dimensions for Library Shelving in Study .			
G.	"Rooms in Arisbe House," list made by Charles S.			
	Peirce, pre-1907			153
н.	"Mrs. Peirce's 20-FOOT VERANDAH," MSS by			455
	Charles S. Peirce, c. 1907			155
1.	Sketch Plan of Second Floor, post-1907			159
J.	Draft Contract for Third Floor Addition, c. 1909,			101
	MSS by Charles S. Peirce	Char	·lo u	161
K.	Sketch of "Upper Verandah," MSS by Charles S.			105
	Peirce, c. 1909	sG 9	vidan.	165
L.	Advertisement for Peirce Property .	183	sgsx:	169
M.	Extract, File of U. S. Corps of Engineers Appraiso	al	•	100
N.	Names and Addresses of Individuals Associated			185
	with Peirce House	moit	subon	187
Ο.	A Few Paint Color Studies of Exterior Trim .			195
Ρ.	Profiles of Interior Trim			197
Q.	Bibliography			199
R.	List of Peirce House Photographs	1 1101	strate	100

## INTRODUCTION

Recognition of the American philosopher, logician, scientist Charles Sanders Peirce (1839-1914) has until now been limited largely to the world of academia. It is the intent of the National Park Service in cooperation with the Charles S. Peirce Foundation to introduce the man and his many talents to the general public by dedicating a museum to him in his last home in Milford, Pennsylvania.

The house, called by Peirce "Arisbe" and a portion of its original land holdings, is located 2 miles north of Milford, Pennsylvania, on a detached portion of Delaware Water Gap National Recreation Area of the National Park Service. 1

The Peirce Foundation, Arisbe Committee, received a grant from the National Endowment for the Humanities to make a preliminary design for the exhibition on Peirce and his work to be installed in his house. The Foundation has chosen the firm Venturi, Rauch and Scott Brown Associates and Planners of Philadelphia to produce the plans. Their first report was issued in November 1977.

The Denver Service Center Branch of Cultural Resources has been assigned the production of this historic structure report. Unfortunately, the funds allocated fell short of what would be needed to produce independent historical and architectural data sections. The architects were allotted the full amount, and have included in the appendix of this report two published biographical articles on Peirce as well as material on the history of the house, to partially compensate for the lack of the historical data section.

<sup>1.</sup> The house and 9.61 acres were purchased by the U. S. Corps of Engineers in 1972 associated with land acquisition for the Tocks Island Dam project near the Delaware Water Gap. See Appendix N for excerpts of the Corps of Engineers file on this property.

The recommendation section was developed in response to the Development/Study proposal (10-238), dated December 14, 1977.

It is the writer's personal opinion that the development of the Peirce House as a museum and monument to Charles S. Peirce the philosopher is unfounded. The perpetual expenditure of public funds on this large house and grounds is not warranted considering the remoteness of the site from the most appropriate and potential audience. As elaborated upon in Chapter I, the house indeed represents a tragic drain on Peirce himself, diverting him from the central interests of his life. This is a perfect example where the man and his ideas are more important than the house he lived in. The writer would rather see the Peirce Society further publication, teaching, and traveling exhibits on Peirce, which would reach and inspire students to follow his philosophical pursuits.

As this structure has been nominated to the National Register of Historic Places, all undertakings effecting it will upon inclusion in the register be subject to compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR Part 800).

In preparing this work we were greatly aided by the Delaware Water Gap National Recreation Area Superintendent James L. McLaughlin and his staff, particularly Chief of Interpretation Omego G. East, Interpretive Specialist Ray Fauber, Chief of Maintenance Charles Atwood, and the NPS residents in the house, Mr. and Mrs. Woodcox and Mr. and Mrs. Locke.

We received great cooperation also from the Mid-Atlantic Regional Office Mechanical Engineer Wayne Veach who assessed the condition of the house utilities. Further technical help resulted from a cooperative effort between the Mid-Atlantic Regional Office and Denver Service Center to provide alternative cost estimates. These were presented by Mid-Atlantic Regional Director Richard L. Stanton in November 1977 to U. S. Congressman Joseph M. McDade who represents this district of Pennsylvania. At this time architect John Ingle of the MARO Division of Planning and Resource Preservation and the writer assembled the scope

and cost estimates after a site visit with Structural Engineer Carl A. Baumert, Jr. of Keast and Hood, and building contractor William Cornell of J. S. Cornell & Son, Inc., both of Philadelphia.

To Ms. Mary K. Mish, the architectural technician with the Historic Architecture Branch, go many thanks for her help particularly in reviewing the papers of Charles S. Peirce and interviewing Milford residents. To Historical Architect G. Rodger Evans go thanks for taking the many measurements and photographs which have been invaluable in bringing the site "back to the office."

Penelope Hartshorne Batcheler

January 1978

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## I. THE PEIRCES' MOVE TO MILFORD, PENNSYLVANIA

Peirce (pronounced purse) is said to have been "the first modern thinker capable of assimilating logic, mathematics, and the methods of scientific investigation to the problems and concepts of philosophy."

For many years he was associated with the U. S. Coast and Geodetic Survey, assigned basic research in establishing this country's geodetic system, inventing improved ways of measuring, mapping, and researching gravity.

Peirce lectured at Harvard and Johns Hopkins Universities, but never held a permanent teaching position. All his life he published articles and book reviews but for little monetary return. Many unpublished manuscripts are now being assembled in annotated chronological editions of his complete writings.

In 1887 Peirce retired to Milford, Pennsylvania with his second wife. Here without support except for an occasional book review or lecture fee, Peirce worked "desperately to get written before I die a book on logic that shall attract some good minds through whom I may do some real good."

Having divorced his first wife in 1883 on the basis that she had deserted him, Charles Peirce shortly thereafter married Juliette Froissy of Nancy, France.<sup>2</sup>

<sup>1.</sup> In the files of Delaware Water Gap National Recreation Area are typescript papers written in 1975 by Preston Tuttle of the Charles S. Peirce Foundation proposing the Memorial Museum. This report leaned heavily on these papers, particularly the sections on Peirce's "Life and Contributions" and "Background of Arisbe: A Brief History." The latter is included in Appendix E of this report.

<sup>2.</sup> Appendix A, <u>Dictionary of American Biography</u>, "Peirce, Charles Sanders," p. 402.

Peirce met Juliette while they were staying at the Hotel Brevoort in New York City in the spring of 1877. Coincidentally, Peirce had heard Juliette's sister sing at a charity concert in Paris a year or so before. Juliette was also musical, playing the harp and piano, but little else is known about her background, except that she also had a previous marriage to a Monsieur Pourtalai.

In the Peirce's marriage certificate filed in New York City, it is curious that the names given for her parents have not been found in the official records of the area of Nancy. It is said she had her reasons for withholding her identity. Local Milford gossip has speculated that Juliette was a Hapsburg and as a child played with Emperor Wilhelm. 4

Juliette's noble pretentions may have been the major influence on the development of the house and affected Peirce's later life and work.

The Peirces lived at Fauchere's Inn (founded by Louis Fauchere in 1852), enjoying the French cuisine for about a year while they "tried out" the area and looked for property. It may have been the small French settlement at Milford but even more it was the spectacular and remote locale which drew them there. The House Journal Magazine of Wednesday, May 4, 1892, gave a glowing description of "Milford on the Delaware" which aspired to be another Newport or Tuxedo (see Appendix C).

<sup>3.</sup> Telcon December 7, 1976, Penelope H. Batcheler/Dr. Max H. Fisch, editor, Peirce Edition Project.

<sup>4.</sup> Telcon Penelope H. Batcheler/Mrs. Edna Green of Milford, daughter of Mr. Van Tassell, livery stable owner, who worked for the Peirces. Mrs. Green said Juliette was born in a castle between Nancy and Strasbourg, that she was a Hapsburg who had signed her rights away at the behest of an older brother, and that a sister used to send her money which was to be used only for building, thus she never finished any project.

<sup>5.</sup> Appendix E, "Background of Arisbe," Tuttle.

Curiously, when they decided on property it was acquired in the name of Juliette Peirce. Was this due to acquisition with her funds? Or was this a way to ensure her security? Regardless, Charles Peirce was to always refer to the property as "Mrs. Peirce's."

Juliette purchased their new home and land from the widow, Maria and daughter, Eleanor, of John T. Quick. The property, on the Delaware some 2 miles north of Milford, consisted of a 50-acre farm with the "homestead" and farm buildings, and an adjacent tract of 80 acres known as the "Quick Saw-Mill" property.

Until Maria Quick died a year later, the Peirce's leased back to her the farmland and farm buildings and the dwelling house except for three rooms which they kept for themselves, one on the first floor and two on the second. By mortgage default and sheriff's sale, Juliette acquired some 1,850 acres of woodland several miles westward of the river front property.

This land investment proved to be useful as the years progressed, with Peirce having little or no income and Juliette's ambitions far surpassing hers. Little by little Juliette mortgaged and disposed of their land holdings to pay for their building projects and living needs.

The building projects were started in the hope of developing a retreat at "Arisbe" which Peirce described ". . . Now I propose to put up three pretty cottages of about four rooms each, and make the house a sort of casino for fashionable people of 'cultural' tendencies, to spend the

<sup>6.</sup> Ibid., p. 27; and Brief of Title, Appendix D. The name "Arisbe" came from the Iliad which Peirce had studied at Harvard. For Peirce it recalled the homeland of his inspiring Greek philosophers, for Juliette it was the name of her favorite butterfly. Peirce at first saw no need to change the local name of the house site "Quicktown," but obviously gave in to the pressures of his wife and their influential Milford friend Mrs. Gifford Pinchot who wished to elevate the connotation (Appendix E, pp. 29-31).

summer, have a good time, and take a mild dose of philosophy." This idea seems to have been their undoing. They apparently never really finished the cottages completely, nor any of the other outbuildings to support such an operation. Instead of giving up in discouragement they, primarily Juliette, kept thinking success would come only with expansion of the main house. Thus, there were several phases of major alterations and additions to the house over and above the initial alterations they made to upgrade the old Quick "homestead." Chapter II deals specifically with the scope of these changes to the structure.

The personal motivations back of these amibitious additions to the Peirce's House are most interesting to speculate upon. About 2 miles away near Milford stood the grand stone manor house of Governor Gifford Pinchot. French in style, this house and what it stood for may have awakened in Juliette desires to live in the manner born. Near the end of her life she advertised their house for sale with flowery descriptions of her "french castle" and "private parke," explaining away the unfinished state of the structures by saying ". . . all in a condition for change to indivdual taste."

Charles Peirce, on the other hand, can be viewed as the supporting actor in these projects. He was obviously devoted to Juliette. When she was very ill in 1905 he wrote "God, if she is taken let me not remain one hour." From the voluminous calculations for materials needed and

<sup>7.</sup> Letter from Charles S. Peirce to F. C. Russell, September 17, 1892, "Background of Arisbe," Tuttle, p. 41, Appendix E.

<sup>8.</sup> Letters written to newspapers and real estate firms c. 1932, the drafts of which remained with Juliette's papers and were included in the Charles S. Peirce Papers at Houghton Library, Harvard University. Architectural technician Mary Mish spent several days working with these catalogued papers. She copied some 50 pertinent documents, several of which are included in the appendix. The copies will be deposited with the Interpretation Branch of Delaware Water Gap National Recreation Area.

<sup>9.</sup> Ibid., Peirce Papers, Folder 1623.

detailed specifications for construction written in his own hand, Peirce clearly tried valiantly to help with each project. He did this work as cheerfully as possible, poking fun at himself in one case by writing as though he were the employed contractor to build a veranda saying, ". . . Really, a person who knows so little about building as Mr. Peirce, ought not to attack such a problem, unless he should be gifted with far greater talent than Mrs. Peirce can boast, or unless he has the advantage of advice from a competent architect or builder."

It might have been well if Charles Peirce had taken his own advice. Instead, he calculated to the third power page after page of timber dimensions for an Ice House to be I6 feet by I6 feet, and made detailed scantling lists for the verandas to be added, having solved complicated equations to work out the floor joist deflections (see typical page Appendix I). It was clearly his choice to work this way. Any country carpenter could have planned and executed these structures without Peirce's calculations. As a mathematician Peirce obviously enjoyed the exercise of creating these structures for Mrs. Peirce.

But at times the enjoyment wore thin. Peirce wrote to a friend, Lady Welby, after a long construction period ". . . there are extensive repairs that <u>must</u> be made to enable us to live through next winter and I must naturally have to get plans made, revised, redrawn, considered, re-redrawn and though my wife attends to all the details and the ideas are wholly hers, still it prevents very largely the continuity of thought requisite for the kind of work which is more particularly mine." 11

This house with which they initially were very proud and happy, became an albatross that plagued their lives for being too big, demanding too much care, and depleting their funds.

<sup>10.</sup> Ibid., Peirce Papers, December 15, 1907, "Mrs. Peirce's 2-FOOT VERANDAH," Appendix I.

<sup>11.</sup> Appendix E, "Background of Arisbe," Tuttle, p. 34. Peirce is also quoted complaining about "chores" the "menial offices of everyday . . . the hewing of wood and the drawing of water. . . ."

Peirce's life ended in great pain from cancer. But all those last years he nursed his sick wife ". . . it becomes my first desire, as well as my first duty, to work at nothing which does not ameliorate her condition." 12

From Peirce's death in 1914 for the next 20 years, Juliette lived alone, ailing, unable to write well for a broken wrist, still spelling phonetically with her Alsace Lorraine accent. She tried to pay off debts to friends, wrote repeatedly to real estate dealers or newspapers peddling her "Arisbe Park," only to be turned down, once by the ungracious return of her letter with "Not Interested" penciled on the envelope. In the 1920s there may have been a glimmer of hope during two summers when she had a partner in running her Inn.

The Pinchots sent food to Juliette when she was ill. Mrs. Caroline dePuy of Milford recalls going to the house when she was 16 "taking soup and brandy at the request of the Pinchots." She found "Madame Peirce" with a high fever and somewhat delirious reclining in a chaise in the study. An indelible impression was made on the young girl as "Madame Peirce" pointed to the ashes of Charles Peirce in a jar on the mantle and talked of "Papa." 14

In summary, if one were to draw a bar graph of the relationship between Charles Peirce's enthusiasm for his newly created house, "comfortable, very pretty" and "of our own original style," and his

<sup>12.</sup> Ibid., p. 35.

<sup>13.</sup> Madame Bour, who was born in a village in the locale of Juliette's birthplace, came with her husband from New York two summers to run the Arisbe Inn. See Appendix O for the address of the son of Mrs. Albert Steiner who also helped in this venture.

<sup>14.</sup> Telcon, October 26, 1976, Penelope H. Batcheler/Mrs. Caroline dePuy, Milford, Pennsylvania.

<sup>15.</sup> Letter, Charles Peirce to his older brother James Mills Peirce, September 20, 1889, Appendix E, "Background of Arisbe," Tuttle, p. 39.

relationship some 20 years later, the bar would descend in a straight line as time progressed and their home grew more unmanageable.

By the same token the architectural style of the house descended in merit at the same parallel pace. Starting as a simple mid-19th century frame farmhouse, it reached its zenith of style when the Peirce's ca. 1892, completed their first renovation (see Illustration 2). At that stage it resembled on a small scale the shingle-styled houses being built for the Boston rich by the followers of architect H. H. Richardson, with some echos of classicism in the porch posts and cornices. Alas, the harmony of this composition was repeatedly and drastically disturbed with each subsequent alteration.

Illustration 1

toward the Delaware River while Juliette, his wife, with the warmth of the sun on her back and one hand on her pet French poodle, smiles to herself. The young woman seated on the rusticated well is unidentified. Charles Sanders Peirce holding his steel spectacles, fixes his eyes

indicated by the presence of the semi-cylindrical south addition to Peirce's study, and the appended conical-roofed entrance porch. From photograph was taken sometime between 1892 and 1907, as the style of the costume of Juliette one can fix the date at approximately The

This period of the Peirce's life at "Arisbe" was perhaps the most for them. They had completed the renovation of the old farmhouse they bought, and had not yet embarked on the ambitious construction projects which were to preoccupy their lives. peaceful

Permission to publish this photograph must be obtained from the Houghton Library, Harvard University, Cambridge, Massachusetts.



## Illustration 2

The Peirce house in its finest hour. This photograph was taken between 1892 and 1907. The house had been successfully renovated from a small frame farmhouse to a comfortable, fashionable, shingle-style country house.

adding a third floor to the front portion and by changing the porches In 1907 this architectural statement was completely changed seen here to a high porte cochere. More than likely the photograph was taken closer to the end of the above bracket years, for all the shrubbery has had time to become overgrown. Permission to publish this photograph must be obtained from the Houghton Library, Harvard University, Cambridge, Massachusetts.

### Illustration 3

Juliette Froissy Peirce, delicate, often bedridden, rests here in her bedroom on a folding garden chair with the fresh air coming through the louvered blinds.

Her furnishings are simple. The best pieces are a c. 1840 pedestal sewing table, an early Hitchcock rush seat side chair (behind Juliette), and a Victorian rush seat rocking chair.

In the corner is a light-painted, square-topped, tripod table, and before the door to the Peirce's dressing room stands a bamboo and fabric folding screen. Hanging on the screen (visible with magnifying glass) are an evening bag, a pair of tassels on a cord, a set of Indian cow bells, and a pair of castanets. In the corner on the wall hangs a tambourine. Rhythm instruments were the typical travel souvenirs of the period.

Hanging from the simple bedpost is a crocheted handwork bag, and on the sewing table is a quilt-lined sewing basket. Books stand between ends next to the sewing basket and a few small volumes lie ready to be picked up on both tables.

The predominant elements of the room are the flowered wallpaper and amply draped and ruffled fabrics. The room is tidy, the pillows in the upholstered window seats straightened and puffed up after their last usage.

An engraving of a toga draped figure hangs between the windows, and a fabric piece hangs above the mantle, with an applique lambrequin hanging over the mantle shelf. On the shelf stands a timepiece under glass, a Victorian case clock, a vase, figurine on pedestal, and candlestick.

The mantelpiece itself, a late-19th century Federal Revival, was painted black. It framed a set of scenic tiles around the fireplace. A pair of late 19th century iron andirons held the firewood cut by Charles Peirce. Before the hearth lies an oriental rug.

Unfortunately for a study of this house and its occupants this is the only known interior view.

Permission to publish this photograph must be obtained from the Houghton Library, Harvard University, Cambridge, Massachusetts.

<sup>&</sup>lt;sup>1</sup>This color was found on the mantel when a cursory inspection was made of paint layering in 1977.

The side of the house facing the road is herein nominally east



## II. THE STRUCTURAL HISTORY OF THE PEIRCE HOUSE

A sequence of sketch plans and elevations have been made. They must be viewed to follow the chronology of alterations and additions to the Peirce House. They are grouped after the narrative of each construction period.

## 1854

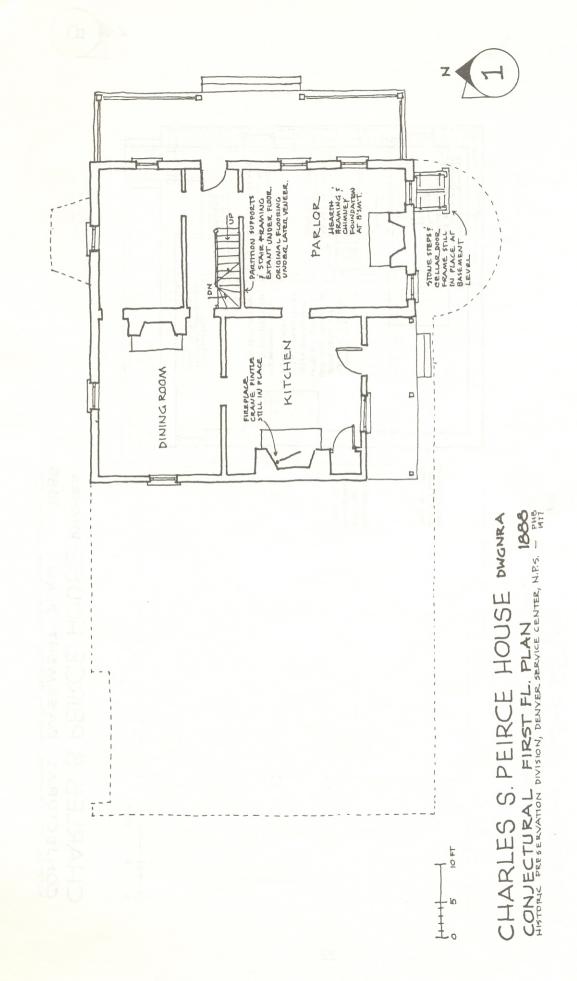
Referring to the chain of title (Appendix D), the site became the Quick family homstead sometime after land acquisition in 1854. The front portion of the house, that is the eastern rooms: Peirce's study and music room and the bed chambers above, made up the main volume of the mid-19th century Quick farmhouse. 1

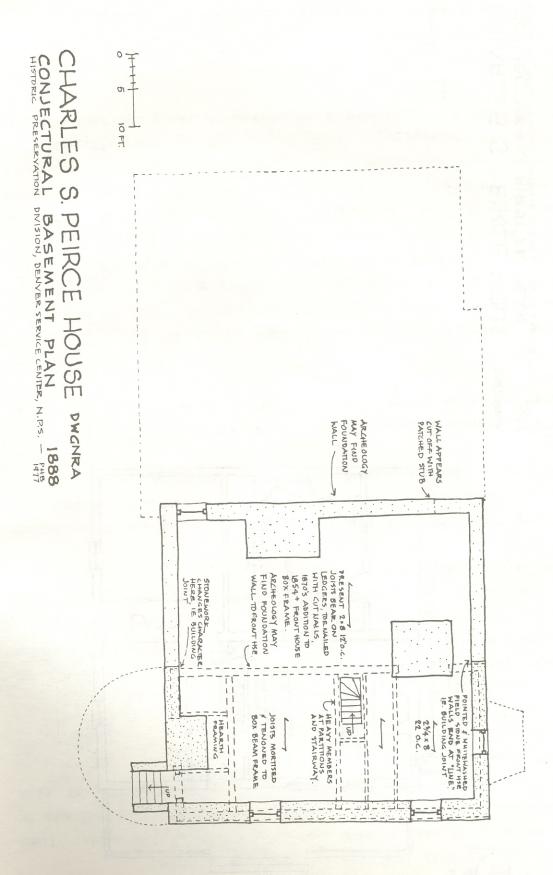
Along Route 209 one can see farmhouses which are of equivalent period and give a good idea of its origin as an unpretentious but well-built wood frame, clapboard, gable-roofed structure.

The farmhouse apparently comprised an entrance stair hall, a parlor, a smaller parlor or office, and two chambers above with an attic under the roof.

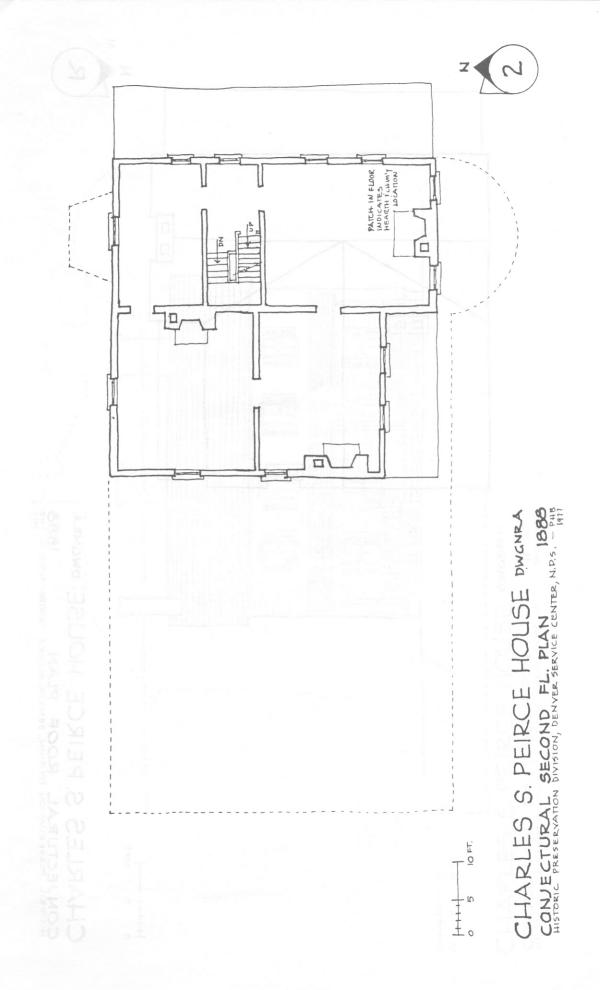
The conformation of the Quick's back kitchen when first built is not as clear. It undoubtedly utilized the heavy stone fireplace foundation and large opening with crane (the pintel of which is still in place) in the room the Peirces' eventually were to call their "Parlor," and may have included the room known to them as the "Garden Room." The framing of the floor of these rooms does not resemble the box frame of the 1854 front structure. Perhaps the framing was in poor condition when the Peirces' made their major renovations and was therefore replaced. There is no sign to show that any earlier framing was tied into the front house box frame. This could be explained if the kitchen-backwing had been the first

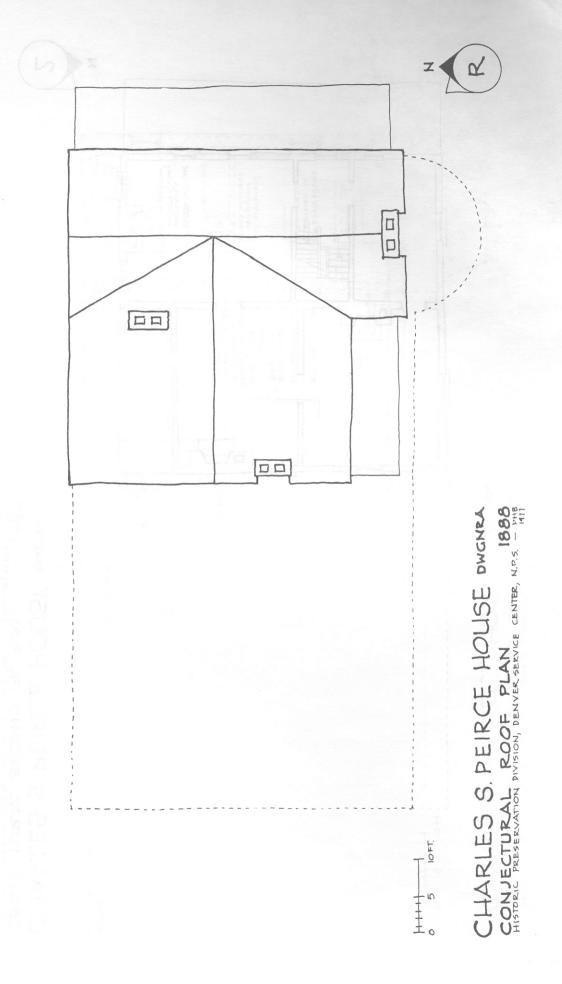
<sup>1.</sup> The side of the house facing the road is herein nominally east.

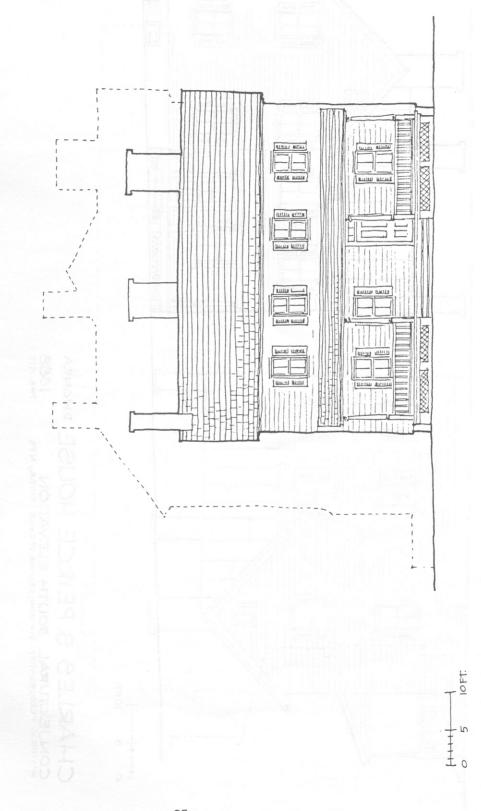






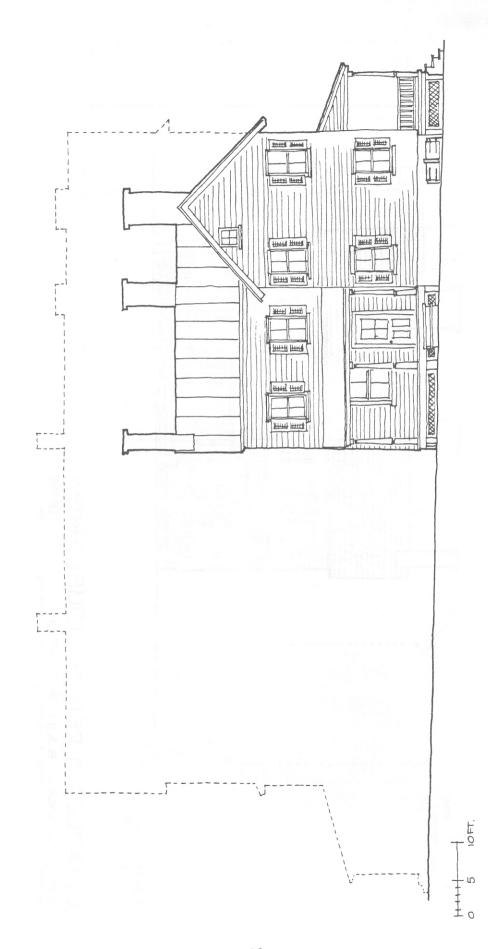




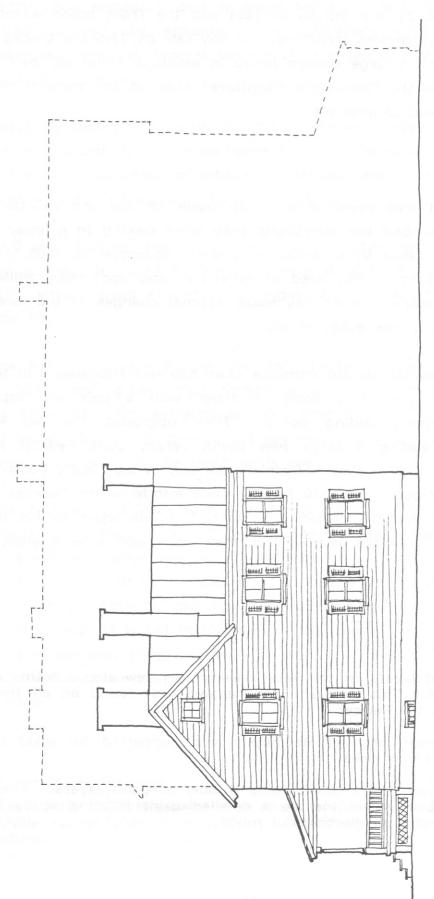


CHARLES S. PEIRCE HOUSE DWGNRA
CONJECTURAL EAST ELEVATION
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, MPS. PHB 1977

25



CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL SOUTH ELEVATION 1888
HISTORIC PRESERVATION DIVISION, DEUVER SERVICE CENTER, NPS PHB, 1977



CHARLES S. PEIRCE HOUSE DWGNEA CONJECTURAL NORTH ELEVATION 1888
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, N.P.S. PHS, 1977

27

structure built by the Quicks in 1854 and the front house added soon after as an independent structure. At any rate by 1876 the Quicks had a going farm with a large enough house in which to bring up their family and accumulate the "household Furniture" cited in the transfer of their property between generations.

## 1889

Charles Peirce revealed his enthusiasm for his and Juliette's new home and described the alterations they were making in a letter to his older brother, James Mills Peirce, written on September 30, 1889. Within a year of recording the deed of purchase, and apparently while they occupied the house the Peirces made internal changes to the farmhouse and added to its rear wing, or ell.

They removed the old entrance stair hall and relocated it in the ell, throwing the two front rooms together with a pair of "imported" mahongany-paneled sliding doors. They upgraded the old kitchen fireplace by adding a large new North Jersey style Federal Revival mantlepiece. They added a fireplace opening in the "Music Room," and applied an antique c. 1800-20 Federal style mantle in the "Garden Room" (Peirce called this the "Charles II Mantle" in his letter to his brother cited above). At the second floor they "imported" a large antique (c.

<sup>2.</sup> Appendix E, p. 39.

<sup>3.</sup> The paint layers on the mantle were very few atop a bottom coat of finish varnish. This varnish coat matched that found on all the wood trim added by the Peirces.

<sup>4.</sup> The trimmer arch of its hearth was supported by wood framing assembled with wire nails.

<sup>5.</sup> This mantle had a considerable number of paint layers. The scope of this report does not include a detailed paint layering study for the house interior due to shortness of funds.

1830) eight-panel mahogany door to enter Juliette's room, the lock set of which was mortised with silvered knobs. Juliette's mantlepiece on the other hand was new, of Federal Revival style based on the North Jersey use of inverted pilasters.  $^6$ 

Peirce mentioned with pride the "hard-finished" floors which in fact were veneers added above the old house flooring. He said "all the locks, knobs and other hardware is artistic." Indeed, there are several cast iron locks with waffled surfaces which are unusual.

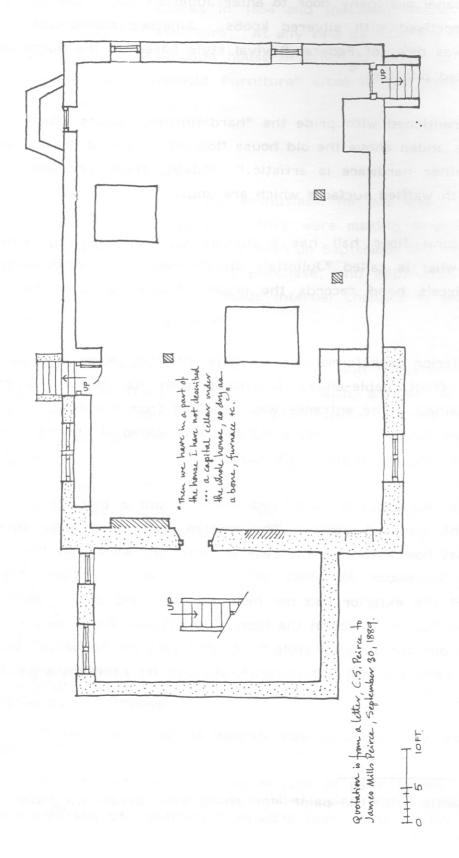
The second floor hall has a curious transition leading from the stairway to what is called "Juliette's Sitting Room." A weak sketch in probably Peirce's hand records the origin of this makeshift form (see Appendix F).

The exterior transformation was only partially made in this first year. The front gable-ended farmhouse with its railed and roofed veranda remained. The entrance was relocated from the roadside to the north "Garden Room." A three-sided bay was added at the north gable and a trellised balcony at the south gable end.

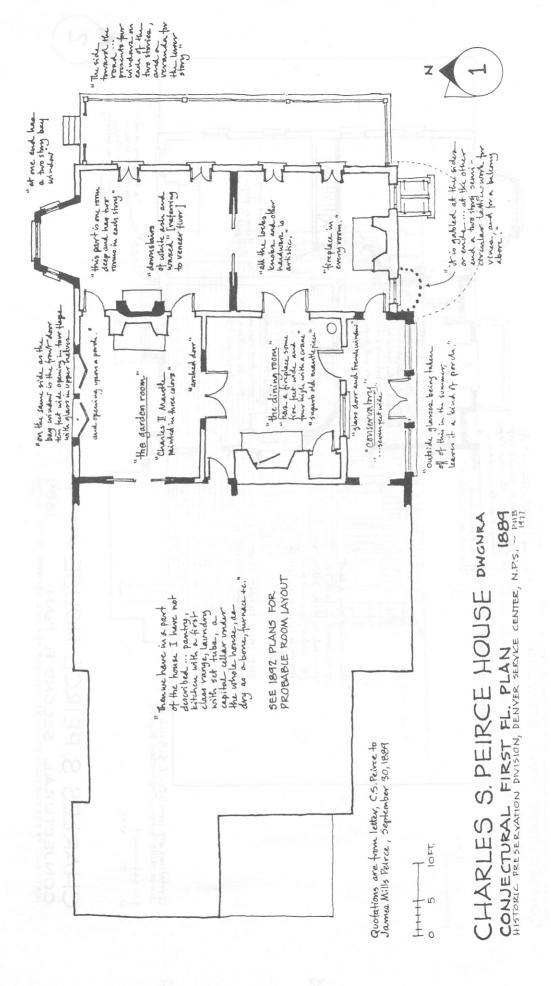
The rear ell acquired prominent dormers and a balcony projecting from incipient mansard roofs. The written description falls short of telling us just how extensive the rear ell additions were. At the time of writing the September 30, 1889 letter to his elder brother, the full renovation of the exterior had not been achieved and indeed Peirce was correct in saying "It is not in the least in the Queen Anne nor any other style. It is our own original style." At that time the house still had too much of the farmhouse imprint to constitute with its additions a particular known style.

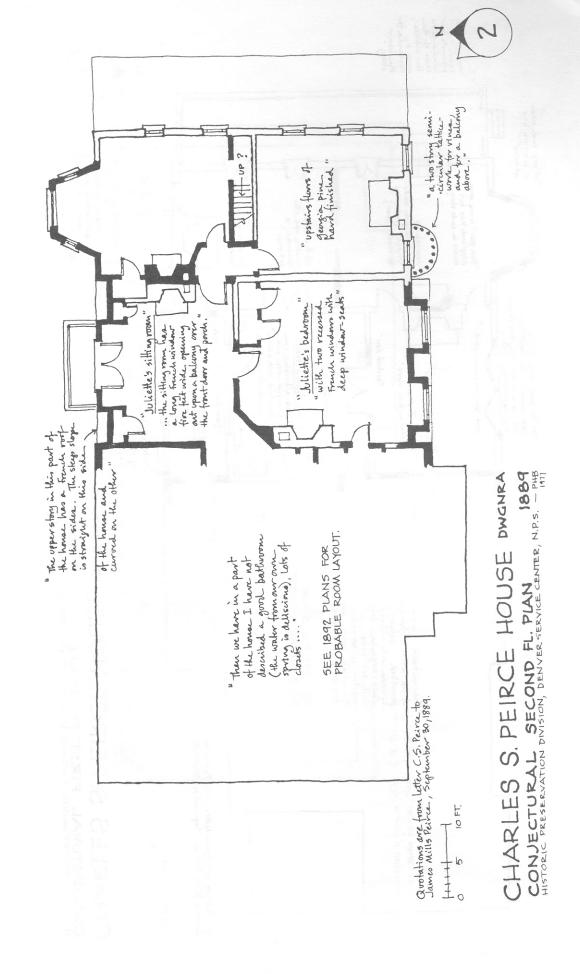
<sup>6.</sup> This mantle had little paint atop sharp even pressured gouges made by machine rather than hand artistry, indicating its late-19th century manufacture.

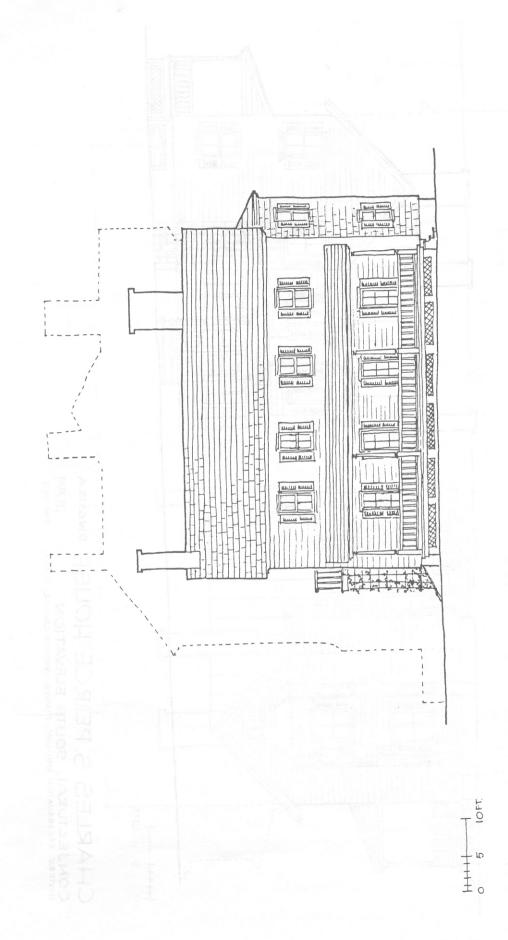




CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL BASEMENT PLAN 1889
HISTORIC PRESERVATION DIVISION, DENVERSERVICE CENTER, N.P.S. - 1977

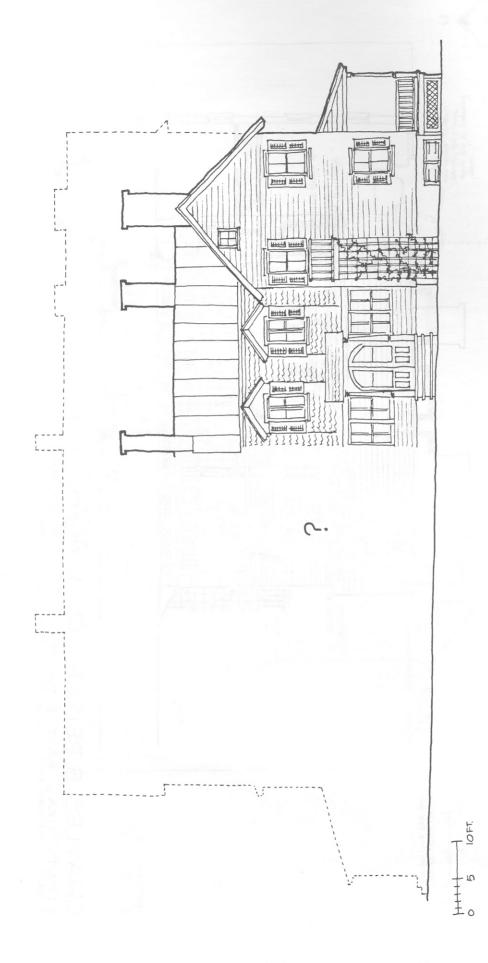




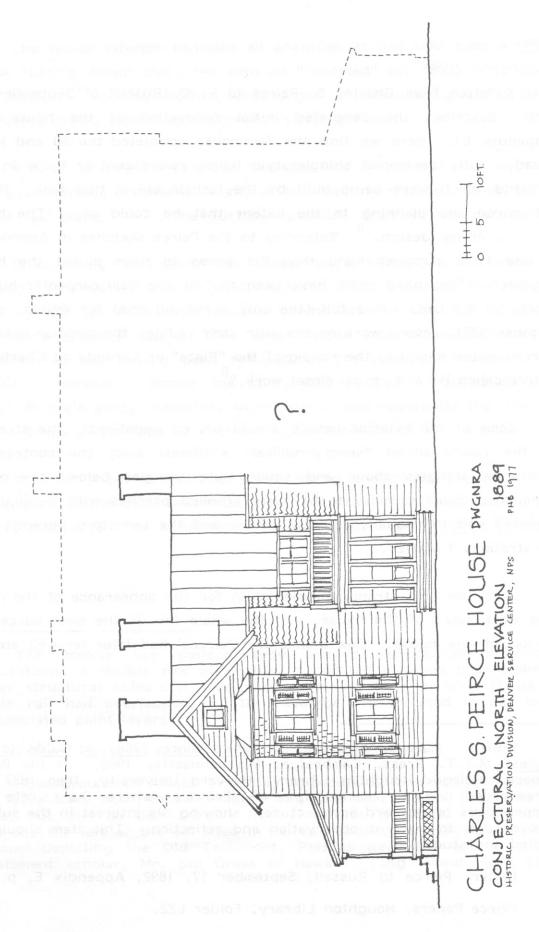


CHARLES S. PEIRCE HOUSE DWGNRA
CONJECTURAL EAST ELEVATION 1889
HISTORIC PRESERVATION PHS 1777

33



CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL SOUTH ELEVATION 1889
HISTORIC PRESERVATION DENVER SERVICE CENTER, N.P.S., PHB-417



A letter from Charles S. Peirce to F. C. Russell of September 17, 1892, describes the completed initial renovation of the house (see Appendix E). Here we find the farmhouse completed buried and in its stead a fully developed shingle-style house reminiscent of those in New England which were being built by the fashionable at that time, Peirce influenced the planning to the extent that he could say, "The house is . . . of my design." Referring to the Peirce sketches in Appendices F and I, a stronger hand than his seems to have pulled the house together. This hand could have been that of the local carpenter-builder Christian F. Leitz. His bill (the only surviving one) for extras, dated October 1891, covers work on the main stair railing, the circular entrance porch, gates added to the railing of the "Piaza" or veranda as Charles S. Peirce called it, and "much closet work."

Some of the exterior details should not go unnoticed: the strength of the newly added "semicylindrical" southeast end; the contrast of fish-scale shingles above and square-butt shingles below; the nicely terminated brick chimneys; the turret formed porches with denticulated cornices and the equally classical posts; and the two-story veranda (see Illustrations 1 and 2).

Alas, we lack strong documentation for the appearance of the north and west sides of the house. On the whole this is the most successful period of the house. One wishes the Peirces' had later let well enough alone.

<sup>7.</sup> Whiffin, Marcus, American Architect Since 1780, A Guide to the Styles, M.I.T. Press, Cambridge, Massachusetts, 1969. In the Peirce Papers catalogue Houghton Library, Harvard University, Item 1637 is a three-page undated manuscript of Peirce's where he wrote his "Impressions of Harvard architecture," showing his interest in the subject was enough to warrant observation and reflection. This item should be copied and studied.

<sup>8.</sup> Letter, Peirce to Russell, September 17, 1892, Appendix E, p. 41.

<sup>9.</sup> Peirce Papers, Houghton Library, Folder L22.

The house interior included all amenities at this time from a formal large "Dining Room" decorated with an "imported" (c. 1800) Philadelphia mantlepiece, <sup>10</sup> to the kitchen appendages of "Pantry" and "Larder," "servants dining room," and "servants sleeping rooms."

With all of this Peirce's own bedroom was 10-1/2 feet wide with the plainest fireplace treatment of all, at last meeting his description of the house as being ". . . the furthest possible from pretentiousness." 11

Undoubtedly the room of most importance to Peirce was his first floor "Study." The semi-cylindrical end, added c. 1891, extended this room by allowing the space to wrap around behind and beyond the old Quick farmhouse chimney stack. The exact appearance of this chimney is unknown to us, having been removed by the subsequent owners, the Phillips. Heresay indicates the study chimney had a mantleshelf upon which Peirce's ashes eventually were placed, and apparently the fireplace opening was surrounded by decorative glazed tiles. <sup>12</sup>

A small sheet of untitled paper among the Peirce Papers further indicates that the semi-cylindrical extension of his study was used to hold Peirce's library. The sheet indicates that against the "Back of Chimney"

<sup>10.</sup> The mantle has Welford type applied composition Adamesque decorations, a double row of dentils, supported by open pilasters. Its outer structural stiles still have paint ridges where in its original use the chair rail had overlapped. All the moldings are softened in profile by accumulated paint layers.

<sup>11.</sup> Letter, Peirce to Russell, 1892, Appendix E, p. 41.

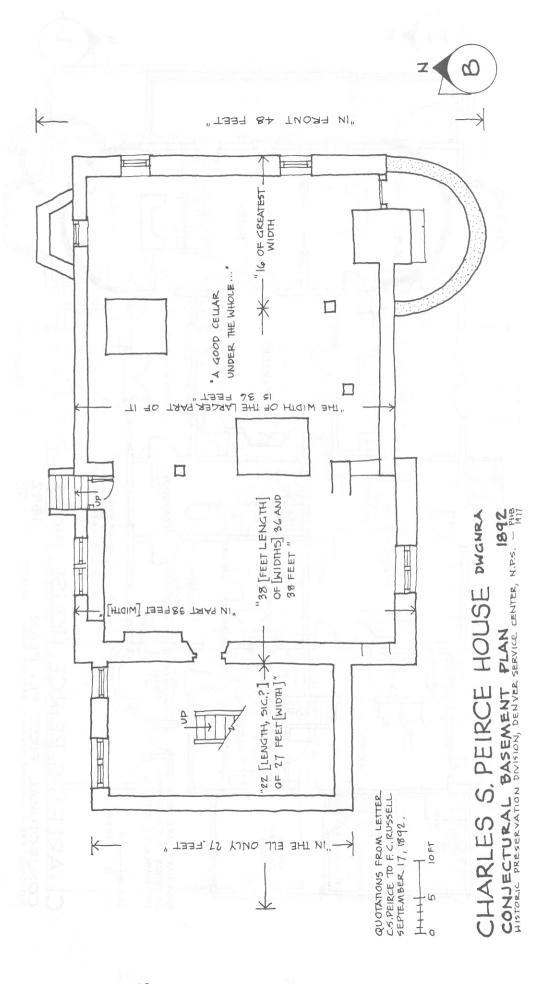
<sup>12. &</sup>quot;Background of Arisbe," Tuttle, Appendix E; and telcon, November 8, 1976, Mary Mish/Robert Phillips who said that all the fireplaces had tiles, but that no tiles survive from the study fireplace. However, he has one tile left of the set used in Peirce's bedroom and Juliette's sitting room. Depicting the Old Testament, Phillips gave the set to an Old Testament scholar, Mr. Sid Gross of Howard, Long Island, New York.

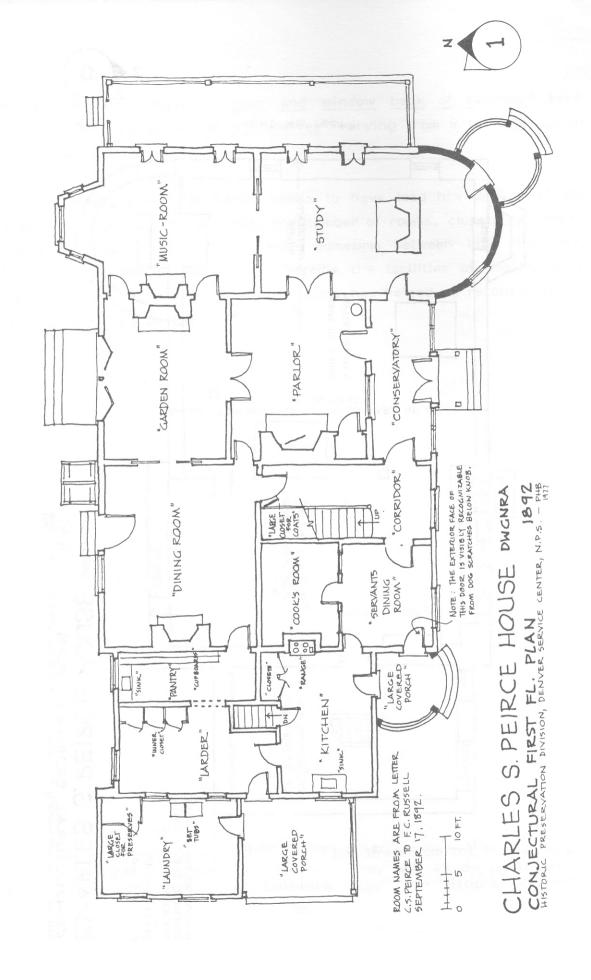
and on the wall "Between door and window back of cylinder" book shelving was built with " $\frac{10}{13}$  inch shelves" varying from 9 to 19 inches in height (see Appendix F).

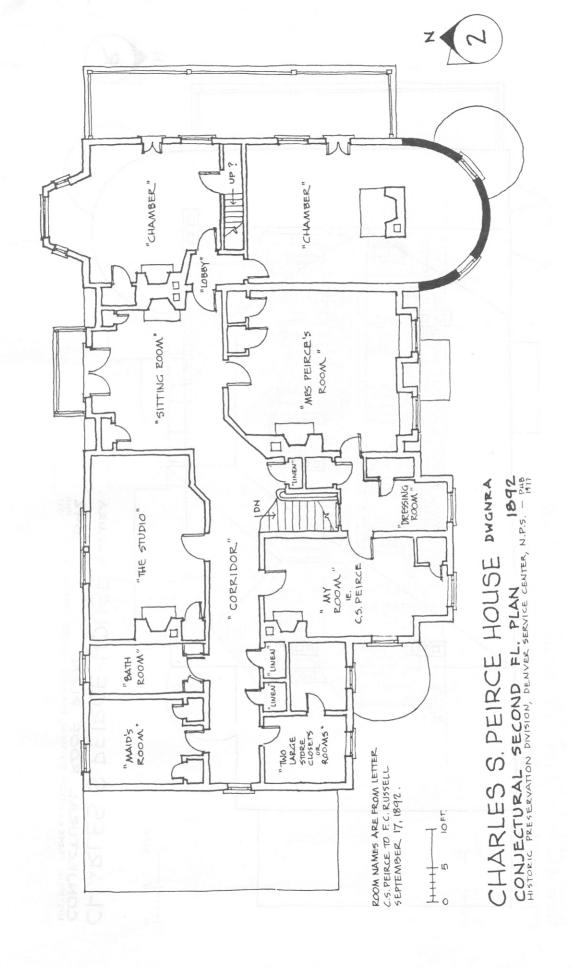
The "geographer" in Perice seems to have lead him to "chart" the parts of his house. At any rate the number of rooms, closets, windows, fireplaces, and porches were itemized sometime between 1892 and 1907. The list may have helped Peirce describe the facilities of the house in real estate advertisements, and it certainly has helped us reconstruct the house plan of this period. 14

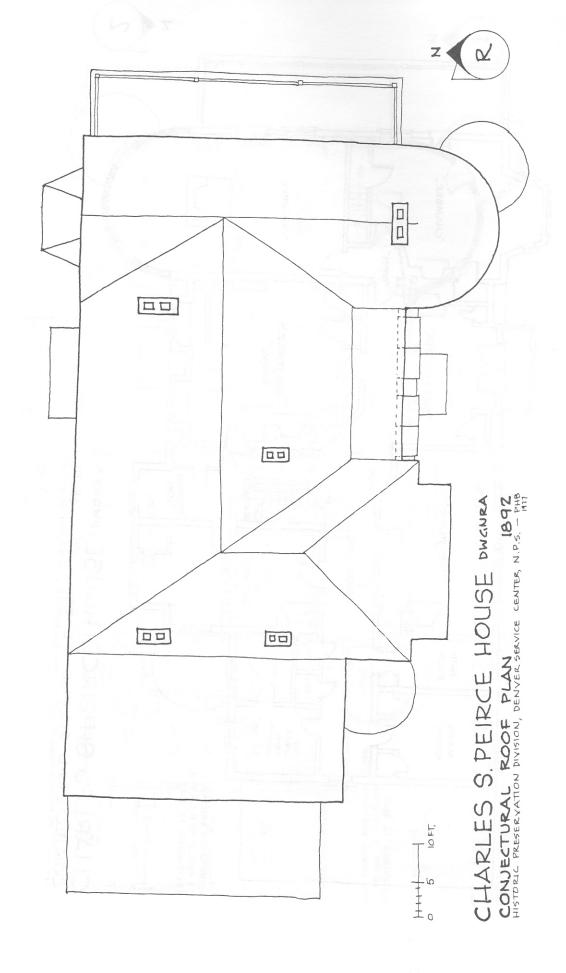
<sup>13.</sup> This paper is among all the copies procured from the Peirce Papers, Houghton Library, Harvard University. They will all be on deposit in the Interpretation Branch of Delaware Water Gap National Recreation Area.

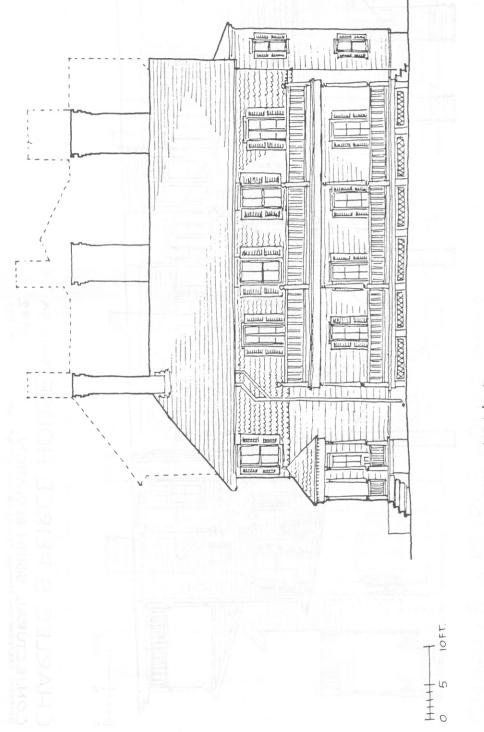
<sup>14.</sup> Appendix G.





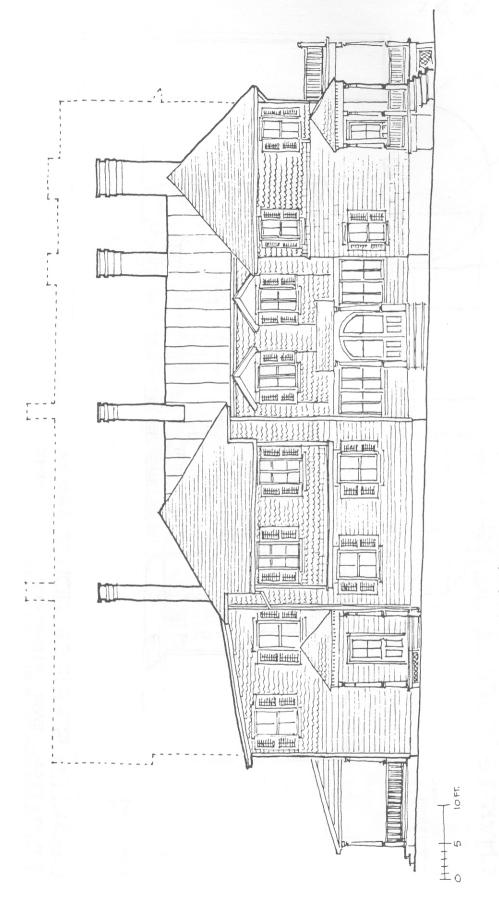




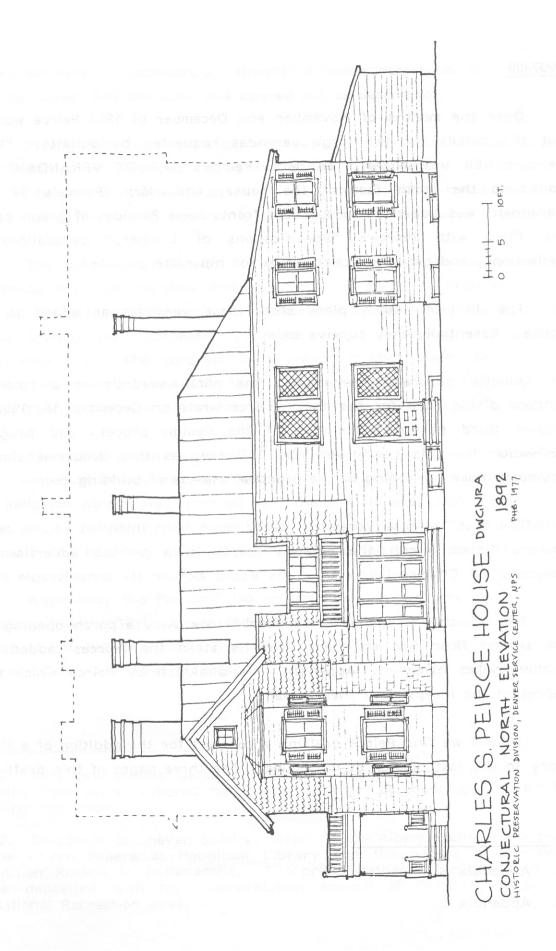


CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL EAST ELEVATION 1892
HISTORIC PRESERVATION PHYSION P

43



CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL SOUTH ELEVATION 1892
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PARE 1917



Over the months of November and December of 1907 Peirce worked out the details for two large verandas requested by Juliette. "Mrs. Peirce's NEW VERANDAH," or "Mrs. Peirce's 20-FOOT VERANDAH" was added to the north face of the house, and "Mrs. Peirce's 34 foot Verandah" was added along the east front. Some 25 sides of graph paper are filled with Peirce's "Specifications of Lumber," calculations of deflections, and geometric calculations for hip rafters.

The 1911-14 sketch plans show these verandas as added to the house. Essentially they survive today.

Juliette apparently envisioned the north veranda as a potential outdoor dining room for her Inn. Peirce wrote on December 15, 1907, a jocular third person description of the design process and program derivation for this north veranda. Peirce, as this document shows, obviously knew something of the practical aspects of building.

The east "34 foot Verandah" could have been intended as the porte cochere listed among the estate's assets in a printed advertisement composed by Charles Peirce. 16 This would explain its considerable size.

The addition of the east "verandah" took away a porch opening off the second floor bed chambers. In its stead the Peirces' added two smaller railed balconies. Appendix I is a sketch by Peirce which may represent the inception of these details.

In 1909 we find Peirce drafting a contract for the addition of a third story to the east portion of the house. The three pages of this draft are

<sup>15.</sup> Appendix H.

<sup>16.</sup> Appendix L.

included here as Appendix J. Whether a final contract was so written we do not know, but the work was carried out as described.

In addition, physical evidence shows that it was in this period that the pebble or riverstone facing was added to the house. No doubt the extra height of the east portion visually called for a rusticated base. The stone facing was apparently also added to the exposed chimneys. 17

The pebblestone veneer at the first floor meant the removal of the delicate entrance porches and shutters. Probably, therefore, this is when the present wide concrete terrace was added across the east front and around the southeast cylindrical end, connecting to the south entrance way. The concrete work shows in photographs taken in the 1920s while Mrs. Peirce still lived. Apparently the north veranda was also given a concrete pad at the first floor level at this time. <sup>18</sup>

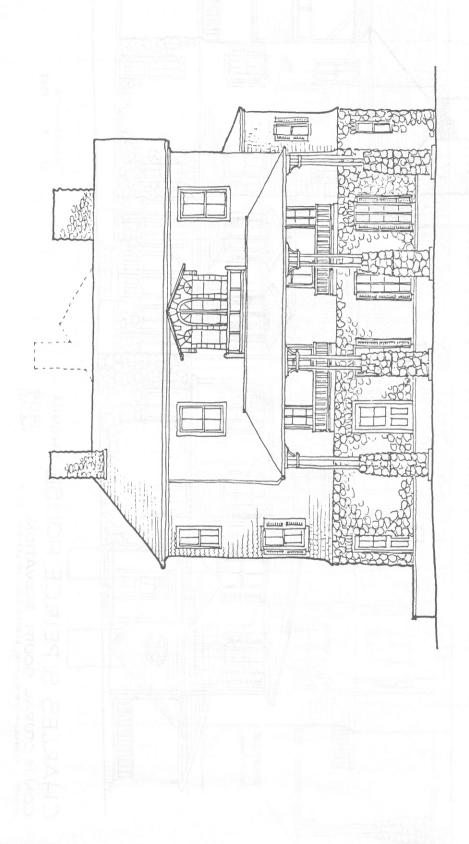
When finally constructed the third floor east side had a pretension not hinted at in the above contract draft. An individual interpretation of a Palladian window was centered over the east veranda roof. Appendix K may illustrate Peirce's attempt to resolve a porch roof and platform outside the Palladian window and thus was called the "Upper Verandah."

Apparently the Peirces' also contemplated at this time adding a "Pot Pantry," and "GRILL-ROOM EXTENSION" the calculations for which are also in the Peirce Papers. Just where these rooms were to be located is uncertain. One sheet of notes hints that these were to be rooms added

<sup>17.</sup> This pebblestone detail survives on the northeast chimney at the third floor level, covered by the next "layer" of construction, the 1911 third floor rear.

<sup>18.</sup> Snapshots of uneven quality, taken by the Albert Steiners are among the Peirce Papers at Houghton Library and the papers at the Peirce Edition Project in Indianapolis. The prints gathered for this study will be deposited with the Interpretation Branch of Delaware Water Gap National Recreation Area.

to the rear west end of the house related to the "Sloping roof behind hip-roof." Perhaps the intent was to add them under an extension of the sloping roof over the second floor maid's bedroom. They then would have been beyond the laundry and kitchen or in lieu of the laundry and kitchen porch. We have no proof that these rooms were ever added. They are not listed in a later description of the estate (Appendix L).



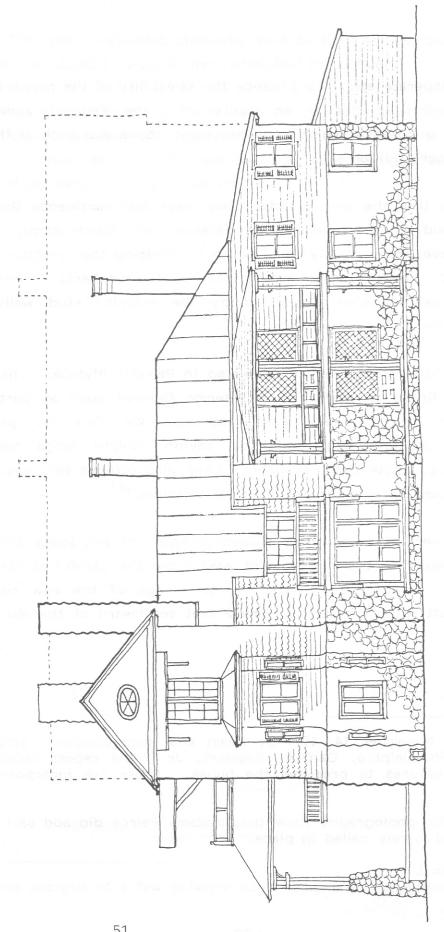
CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL EAST ELEYATION
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PHONTIN

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1909 CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL SOUTH ELEVATION HISTORIC PRESERVATION DELIVER SERVICE CENTER, N.P.S.

10 FT.



1909 CHARLES S. PEIRCE HOUSE DWGNRA CONJECTURAL NORTH ELEYATION HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, N.P.S.

In a desperate effort to enhance the saleability of the property as a "fashionable inn, clubhouse or sanitarium," the Peirces' added the gable-roofed third floor which runs east-west above and back of the east 1909 third floor addition.

By this time the local builders may have lost confidence that they would be paid as they skimped on materials and construction. Peirce could not have been actively involved in supervising the structure. The result was: under-sized roof rafters; few collars; three-part, side-lapped ceiling joists supported by the exterior stud walls; and random interior post and cap shoring.

The third floor was never completed in Peirce's lifetime. There was no exterior finish or sash. No interior finishes such as partitions, flooring, or ceilings were even started. We find the property descriptions dodging this state by saying "thirty large bedrooms available," i.e., potentially available. They also offered this vast space for a "ball room suitable for grill room or solarium." 21

Six dormer windows were included to light the loft space along the north and south. At the prominent east gable the careful symmetry of the Palladian window was violated by the ridge of the new roof and three-part loft window occuring some 2 feet southward of the old center

<sup>19.</sup> Report, November 14, 1977 by Keast and Hood Company, structural engineers, Philadelphia, Carl A. Baumert, Jr. The report recommends structural measures to preserve the house. These are incorporated in Chapter IV.

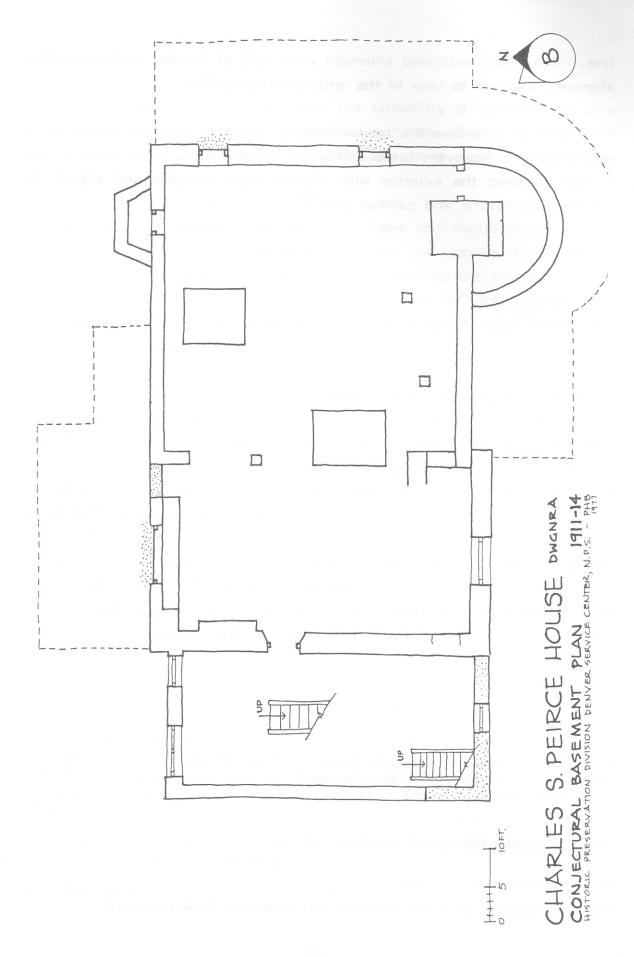
<sup>20.</sup> The 1920s photographs show that Madame Peirce did add sash later, these are still merely nailed in place.

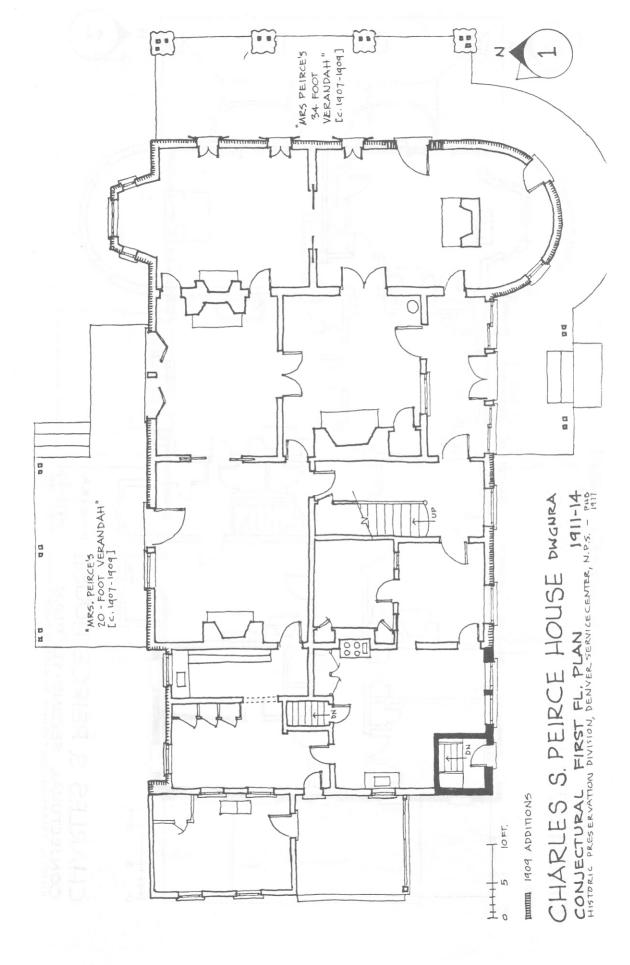
<sup>21.</sup> Appendix L.

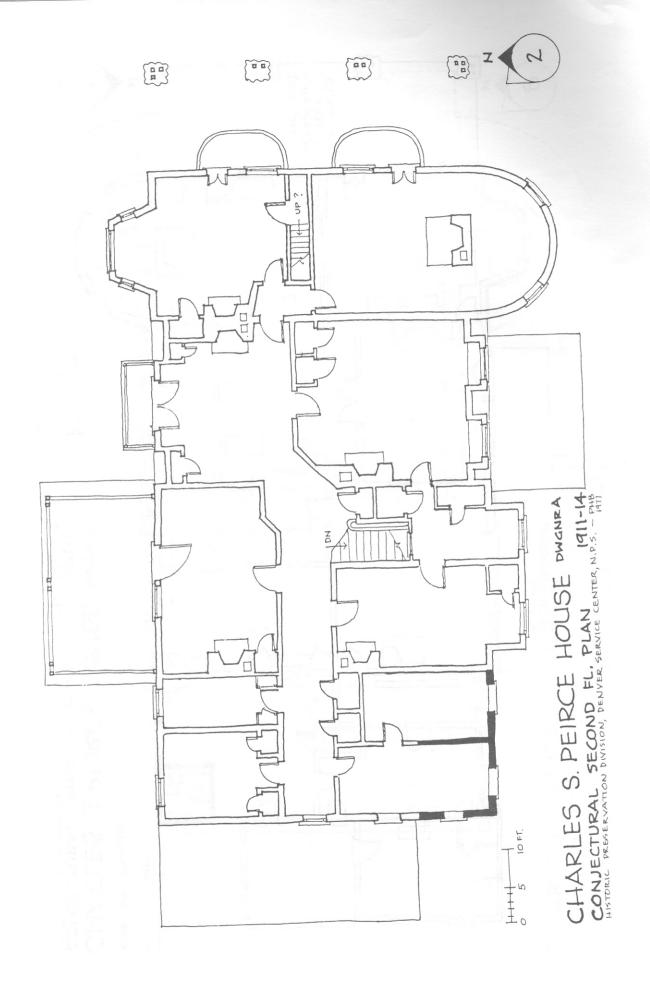
line. The newly extended chimneys were built of bricks, their corbelling alignment exposed to view in the unfinished third floor.

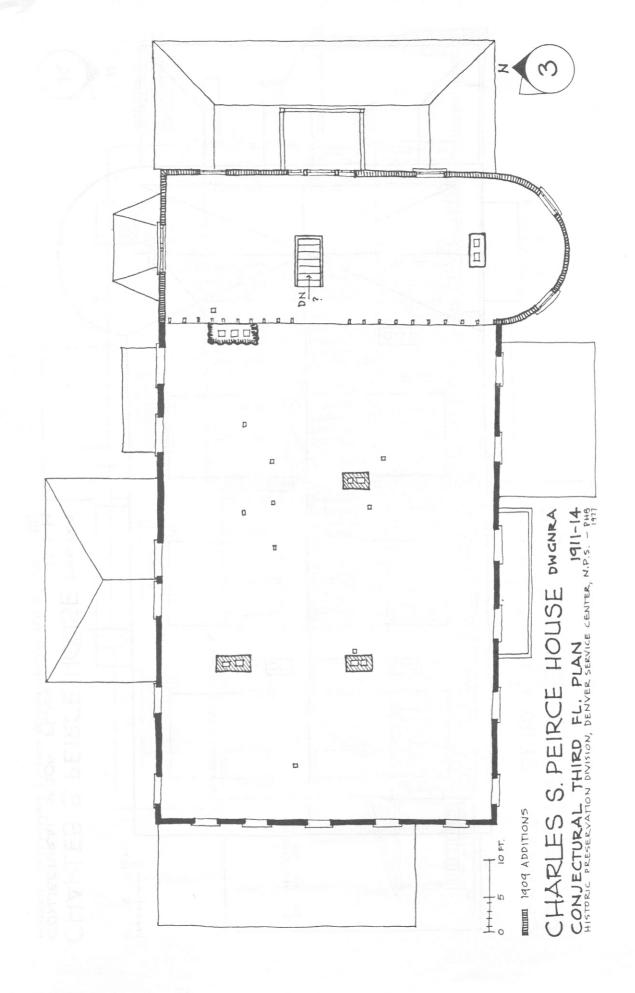
Thus at this time the house reached generally the form in which we see it today. However, instead of being painted white as at present, the Peirces finished the exterior with natural wood shingles and apparently dark-valued natural and painted trim. <sup>22</sup>

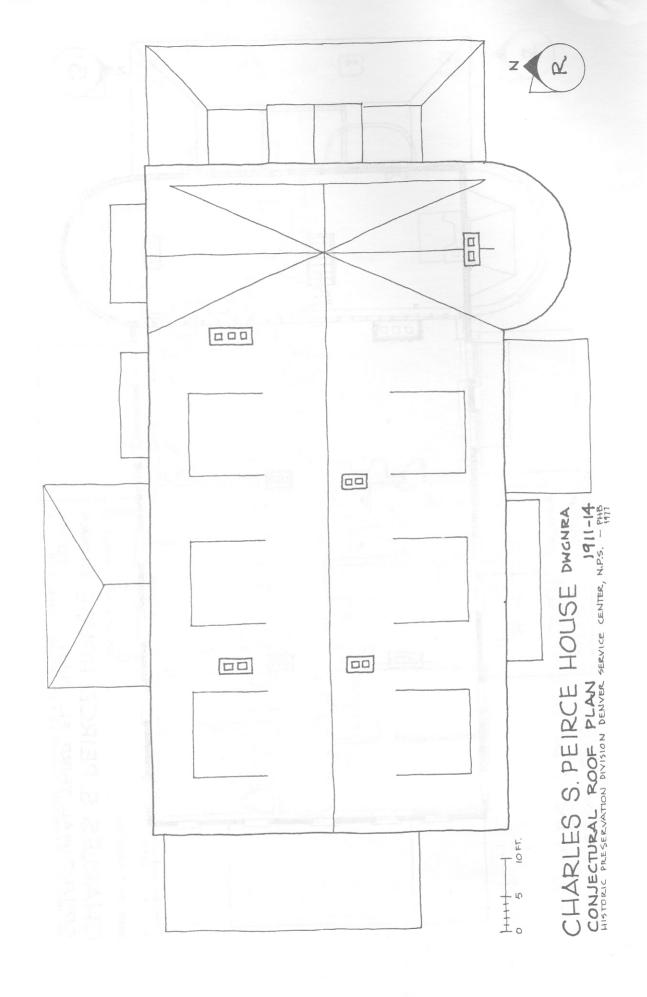
<sup>22.</sup> See analysis of a few exterior paint samples in Appendix O.

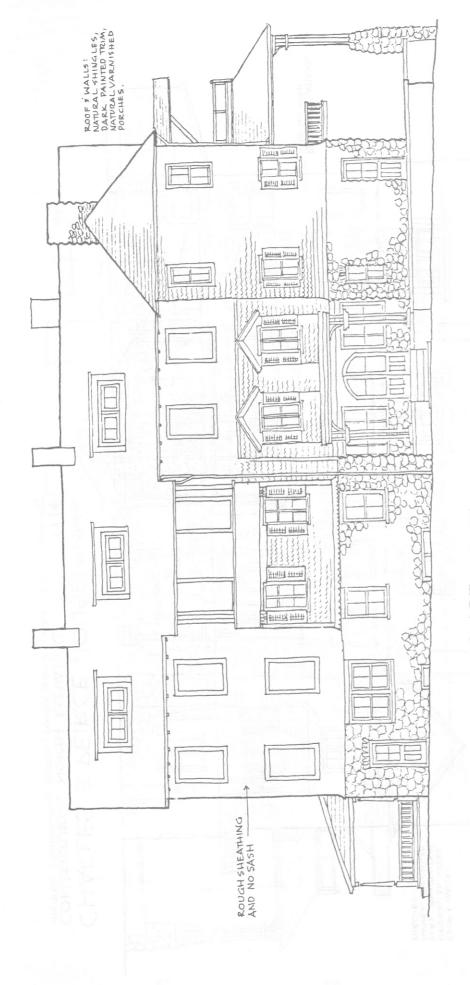




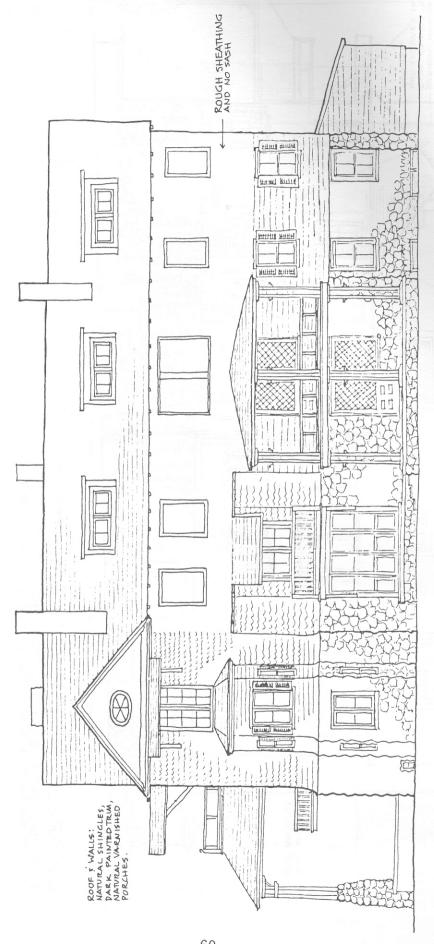






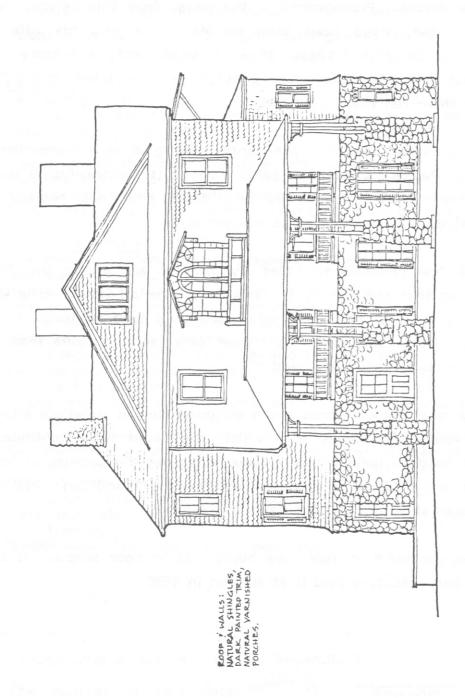


CONJECTURAL SOUTH ELEVATION
HISTORIC PRESERVATION DEWER SERVICE CENTER, NPS PHB 1971



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10 FT O THE O



1914 PHG 1917 CHARLES S. PEIRCE HOUSE DWGNRA

IO FT.

CONJECTURAL EAST ELEVATION
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, MPS

Juliette, alone now with all her hardships, is said to have continued to add to the house. Photographs of the house from this period, owned by Albert Steiner, have been seen by Max Fisch and his wife who sketched their contents. These show a shed roof, one-story stud structure west of the kitchen. The photographs were taken in the 1920s when Mrs. Steiner ran the Arisbe Inn.

Could this have been the pot pantry and grill room extension for which Charles Peirce was making calculations? It is conceivable that it had even been started before Peirce's death and that hearsay has mistakenly attributed the addition to Juliette alone.

Quite a few penciled scribbles by Juliette are among the Peirce papers showing that she was having trouble paying off notes. She wrote friends asking them to help her make good on a land mortgage so that she could take out a second ". . . I must safe [sic] the villa from ruin and have to mortgage again the land." 23

Possibly local bank records could enlighten us on Juliette's attempts to procure second mortgages with which she could have continued to build. It is hard to believe that a bank would see the promise of letting her <a href="mailto:add">add</a> new rooms when the whole third floor 1911 addition stood open with only rough sheathing to withstand the weather.

At Juliette's death in 1934, the house was in poor shape. It stood vacant until her executors sold it at auction in 1936.

<sup>23.</sup> Note among Peirce Papers, Houghton Library, Harvard University, copied for this research project to be deposited at Delaware Water Gap National Recreation Area.

A builder, Robert C. Phillips, purchased "Arisbe" as is for \$3,600 at the auction of Juliette Peirce's estate. The following is the scope of renovations made by the Phillips family during their tenure.

### Exterior of House

New siding at west gable after removal of unfinished additions.

New square-ended shingling on all upper walls - painted white.

Removed all remaining shutters.

New asphalt shingle roof, c. 1970.

New mudroom structure at west kitchen door.

Removed exterior cellar entrance at southwest corner.

Renovated portions of north veranda roof framing and railing.

Added new windows and doors (see elevation comparisons).

## Interior of House

New heating system (retaining several radiators).

New electric wiring.

New plumbing system and fixtures in three bathrooms.

New stairway at northwest corner, cellar to third floor, along with room changes at kitchen end.

Removed the Quick farmhouse south chimney stack including the fireplace openings in study and chamber above.

Patched plaster and added many square feet of Celotex wallboard and painted all surfaces.

Added new flat trim at all new partition openings and new exterior openings.

Removed double doors between "Garden Room" and "Parlor."

Replaced doors from "Parlor" to "Study" and "Conservatory" - using the old "Conservatory" door at the chicken house.

Created one room and added "knotty pine" paneling at "Servants Dining Room" and "Cooks Room."

Cemented cellar floor - and added props beneath weakened first floor framing.

Added insulation under third floor flooring.

<sup>24. &</sup>quot;Background of Arisbe," Tuttle, Appendix E.

<sup>25.</sup> The sources of this data are: Ibid.; telephone conversation, November 18, 1976, NPS architectural technician Mary Mish and Robert Phillips (son of Robert C.); and U. S. Corps of Engineers Appraisal, Appendix M.

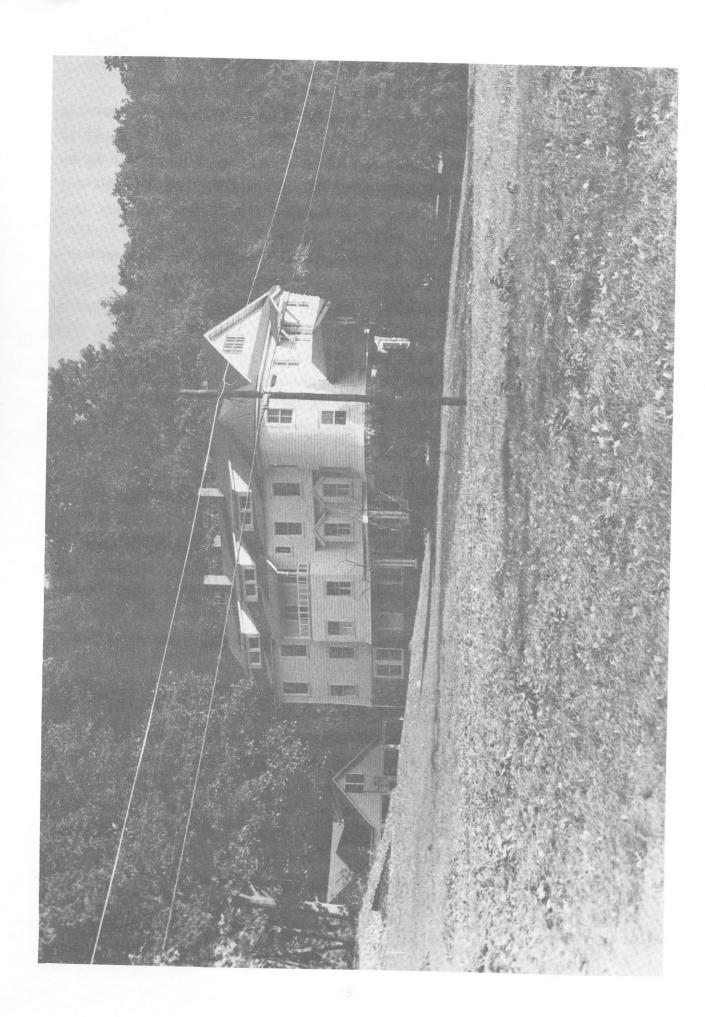
The most unfortunate of all these recent changes was to paint the exterior white. This only accentuates the ungainliness and misalignments which resulted from the later additions. The lines of the house would at least be softened if the shingled exterior walls had been left to weather naturally as the Peirces had intended.

# Illustration 4

all visitors have when This is the view of the Peirce house approaching from the south on Highway 209.

The overall form, however, is largely as it Its white paint today is far from the intended natural wood shingle was when Charles Peirce died. appearance of the Peirces.

Back of the house one can see the four car garage added by the subsequent owners, the Phillips family. Back of this is the dense woods which rise up the steep hill along the west side of the property. Photograph by G. Rodger Evans, Historical Architect, Branch of Cultural Resources, Denver Service Center, October 23, 1976.



# III. HISTORY OF "ARISBE" GROUNDS AND OUTBUILDINGS

Preston Tuttle's "Background of Arisbe" (Appendix E of this report) includes a map showing the location of the Peirce land holdings. This discussion deals only with lots 17 and 117 of this map; the 60-acre farm on which the house stood with emphasis on the present lot of 9.61 acres.

It is hard to know how many outbuildings of those mentioned in the Peirce Papers were actually built, let alone completed. There is mention of the following structures which stood or were contemplated for the estate:

"Ice-House," "an enormous ice-house"

"Stable," "Warm stable"

"Two barns"

"Carriage-house with large room above for a couple of servants . . . a furlong from the house"

"Stone garage"

"Pavillian" - "Octagonal"

"hen-house"

"dog-kennel"

"cottage of two rooms for servants close by [the house]"

"bungalow," "Bungalow plots also avaiable"

"smaller house across the road," "lower house"

"French Villa with two large fire-places, well built all in a condition for changes if desired"

"two story dwelling house"

"New Reservoir," "spring 20 feet above ridge pole" (when house was two stories high)

The only structure for which the existence and placement are certain is a well with stone walls and rustic conical roof at the southeast corner of the house. See Illustrations 1 and 2 for its early appearance. As of the 1920s snapshot photographs, taken while Juliette Peirce was still alive, only the rough stone wall survives. The well could be located by probing in the ground if reconstruction were thought necessary.

The Peirces wrote of views from the house over "a garden of most lovely flowers;" ". . . the greatest profusion of flowers in the garden. . .;" and "six acres more or less with five rose bushes . . . and shade Trese [sic]." There was a "good orchard of Northern Spies."

One would expect to find overgrown grounds when Juliette was alone and helpless in the 1920s. The photograph of the house taken sometime between 1892 and 1907 (Illustration 2) shows unpruned bushes against the house and unkept lawn-fields surrounding the house. Clearly the care of the whole estate was beyond the abilities and wherewithall of both Charles and Juliette Peirce.

There is south of the house on the raised lawn a low pebblestone wall which looks as though it had been a walled garden or hot house enclosure (?). At this time there is no documentation to connect this with the Peirces.

Of the surviving outbuildings only a stone-walled ice house/spring house/root cellar seems to be of the period, although altered in itself.

After 1936 the subsequent owners, the Phillips family, added or altered the following outbuildings and grounds features:

New chicken house

New barn with excavation for house within

New garage

New concrete lining and roof on ice house/spring house/root cellar New septic systems (two?)

Entrance drive moved from north side of house to south (?)

IV. PRESENT CONDITIONS OF HOUSE, GROUNDS, AND OUTBUILDINGS
Besides the Delaware Water Gap National Recreation Area staff, a
number of professionals have examined the Peirce house physical
conditions. In 1974 the Charles S. Peirce Foundation enlisted the aid of
Professor George E. Mattingly of the Princeton University Engineering
School, to make a study of "Air Infiltration." It was then costing the
National Park Service some \$4,000 to \$5,000 a year to heat the house.
The members of the Peirce Foundation were ready to purchase and install
polyethelene to reduce the heat loss at each opening. Instead the
National Park Service applied storm windows to all openings in the house.
Although effective, (estimated heating cost now \$2,000 a year), in the
long run these storm sash are visually obtrusive (see existing elevation
sketches in Chapter II). Their shapes do not aline with the original sash
and doors, and their white trim would conflict with any attempt to return
the house to the dark appearance of 1914.

In 1975 the Peirce Foundation brought Woollen Associates, Inc., Architects, of 604 Fort Wayne Avenue, Indianapolis, Indiana, to make measured floor plans and survey the condition of the house. Their report said: "Arisbe's existing physical condition is generally poor, but it is not endangered." Their recommendations have been incorporated into those of this report.

In April 1976 the Mid-Atlantic Regional Office received a Classified Structure Field Inventory Report on the Peirce house, made by architect John B. Dodd. This was an excellent report although its structural history conclusions were inaccurate for lack of indepth study and no documentary research. As to the condition of the house Dodd recommended removal of the third floor additions made while Peirce was alive (thinking they were all Juliette's doing after Peirce died) in order to forestall potential "heavy maintenance at considerable cost." Unfounded historically as this recommendation is, this warning about maintenance costs must be heeded.

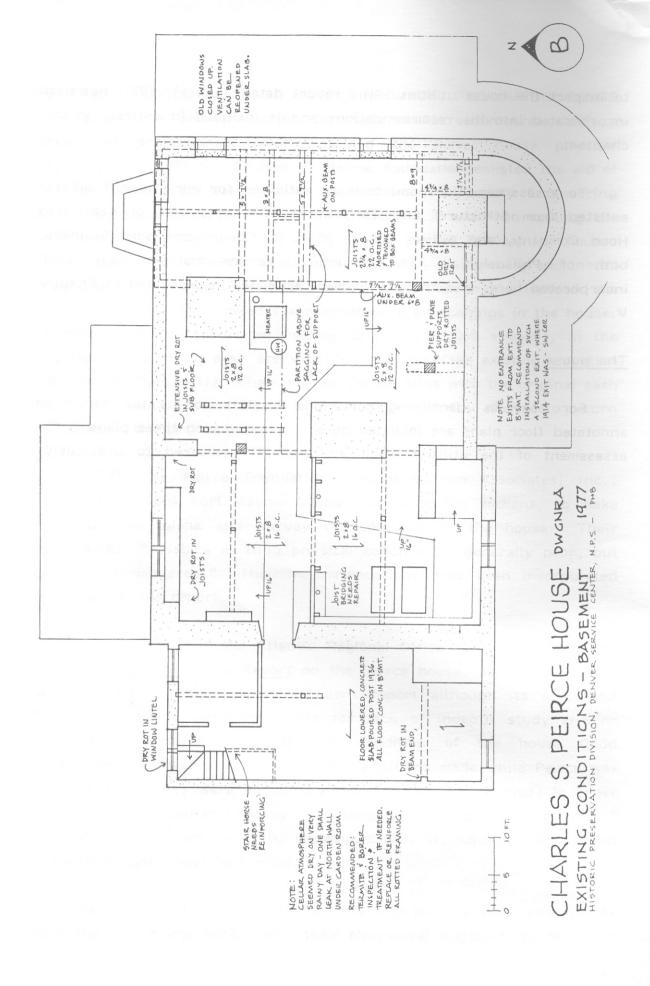
After the start of research for this architectural data section, the Mid-Atlantic Regional Office sent their Mechanical Engineer Wayne Veach

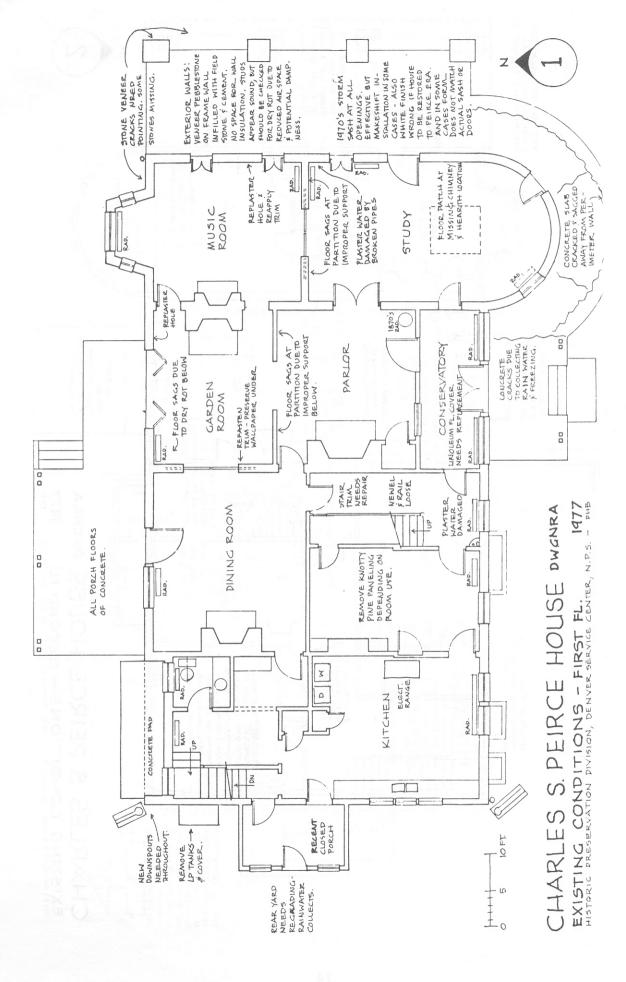
to inspect the house utilities. His report dated June 13, 1977, has been incorporated into the recommendations and is included in entirety in this chapter.

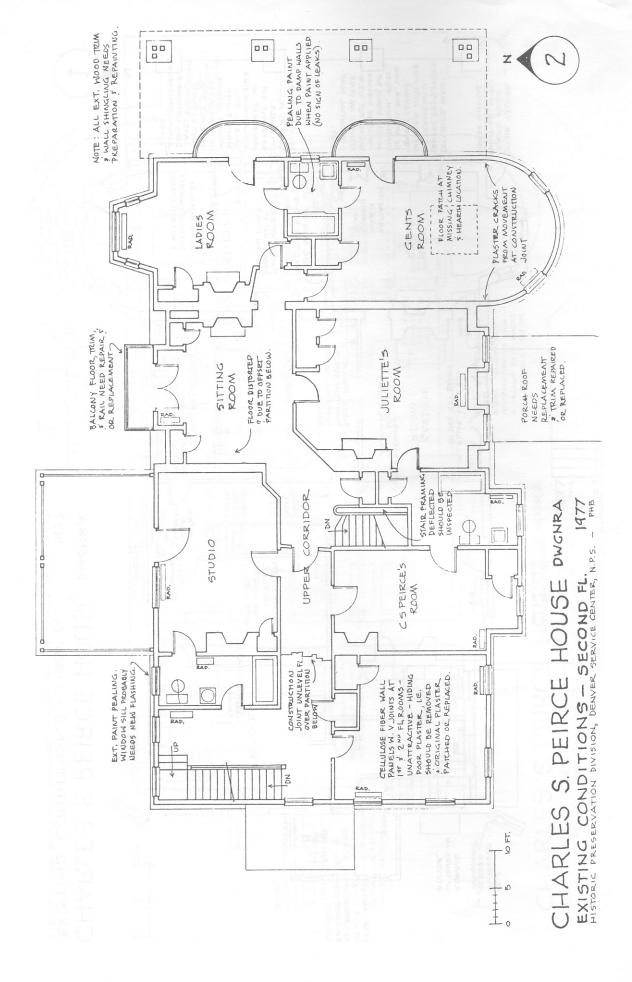
To assess conditions and to make estimates for work needed aid was enlisted from Structural Engineer Carl A. Baumert, Jr., of Keast and Hood Company, and William Cornell of J. S. Cornell and Son, Builders, both of Philadelphia. The structural recommendations have been incorporated here, and the development estimates incorporated in Chapter V.

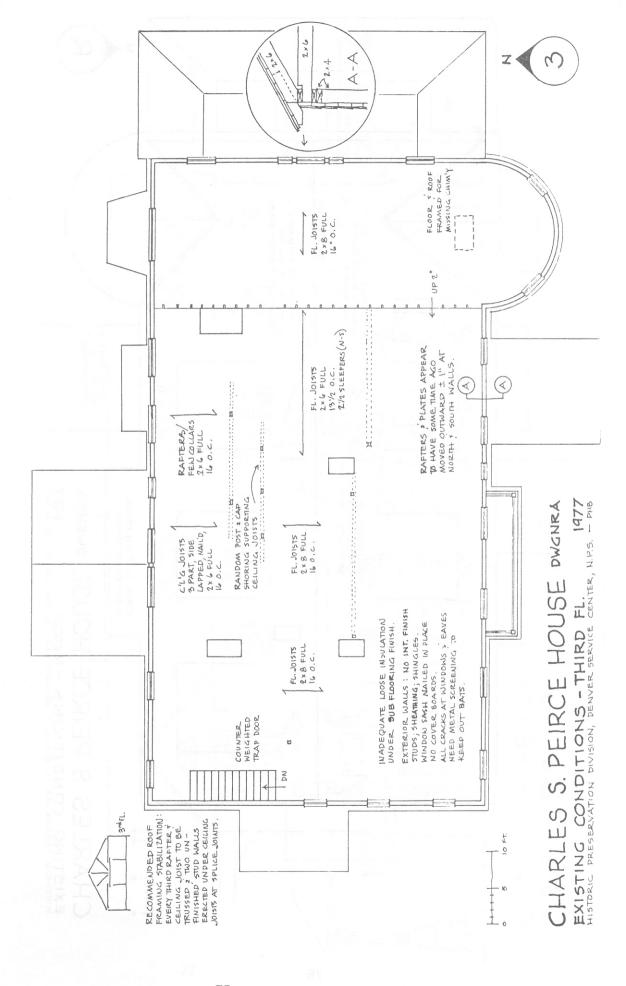
## The House

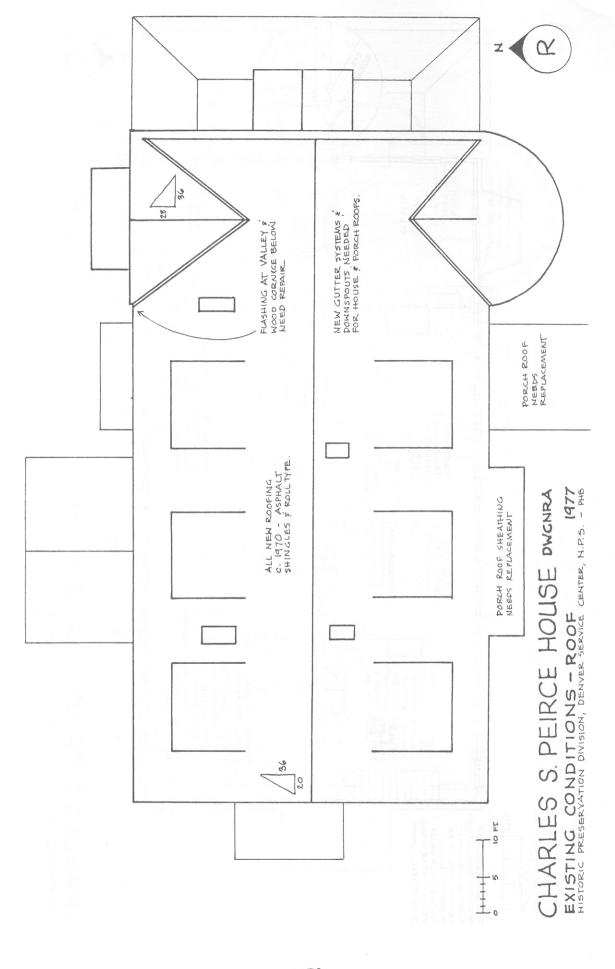
For ease in identifying conditions in this complicated structure annotated floor plans are included here. Accompanying these plans is the assessment of the utilities made in June 1977 referred to previously.







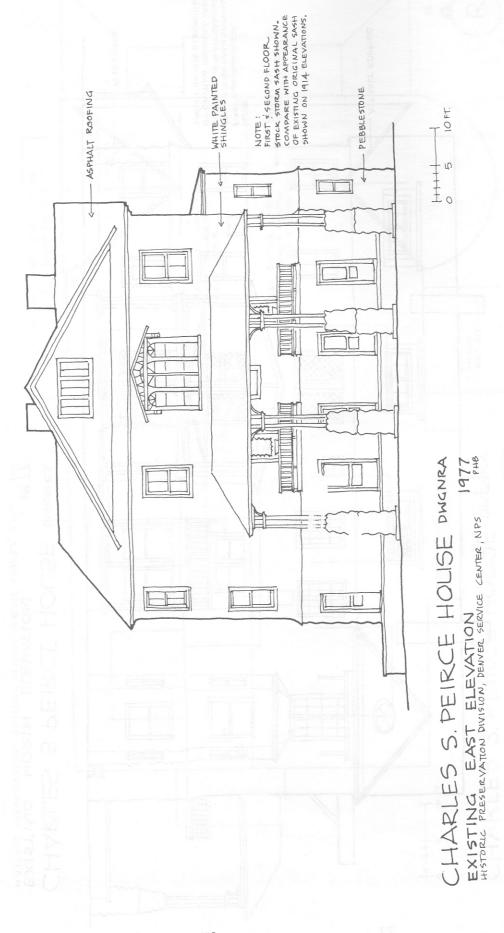






CHARLES S. PEIRCE HOUSE DWGNRA EXISTING NORTH ELEVATION 1977
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EXISTING SOUTH ELEVATION HISTORIC PRESERVATION DENVER SERVICE CENTER, NPS



CHARLES S. PEIRCE HOUSE DWGNRA EXISTING WEST ELEVATION 1977
HISTORIC PRESERVATION DENVER SERVICE CENTER, NRS. PHO

10 FT

OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6
UNITED STATES GOVERNMENT

## Memorandum

ro : Regional Director, Mid-Atlantic Region

Through: Associate Regional Director, Operations

FROM : Mechanical Engineer

SUBJECT: Field Trip Report, Delaware Water Gap, June 7-8, 1977

## PURPOSE:

Survey the Peirce House (Arisbe) Mechanical and Electrical Equipment.

## OBSERVATIONS - GENERAL:

This house was occupied by the Philosopher and Scientist Charles S. Peirce from 1888 until 1914 and is one of the relatively few historic structures in this Park.

DATE: June 13, 1977

The rear first two levels and basement are occupied and utilized by a Park Ranger and his family. The entire 3rd floor/attic is one room and apparently has occupants too -- bats!

## HEATING OBSERVATIONS:

Heating is by an oil fired steam boiler converted from coal and which appears in good condition. Since coal as a fuel looks cleaner as time goes by, the boiler should be retained. It has a low water cut off, operating and high limit control and the customary relief valve, all of which I assume are operational safety devices whose function has been checked out by those responsible in the Park.

Hot water for domestic purposes is stored in a very large tank with integral oil fired heater. Both the oil fired steam boiler and hot water heater are vented into the same chimney flue and I noted that the barometric damper was jarmed into the closed position with a wedge. I assume this was done because fumes were entering the basement. Regardless of the reason and ignoring a possible dangerous condition, it is impossible to maintain efficiency under such a situation. I examined the three additional fireplace supports and I don't believe any additional flues exist which we could utilize to separately vent the two burners.

Insulated steam mains go out from the boiler and risers serve the various radiators all of which have air vents and shut off valves.



The occupied apartment's risers are generally at the end of the mains. Steam rises to the radiators, condenses and gives up its heat and the water drains back in the same pipe which is pitched - as are the mains - back to the boiler. This system makes it easy to shut off the radiators any time without having to worry about freezing. All radiators are functional; in winter most of the heat is off in the unoccupied spaces. Steam condensate picks up oxygen and other gases and this deteriorates the return lines relatively rapidly so they may need replacement eventually. The boiler has a Hartford return connection which is a piping configuration to reduce or prevent water loss in the event of a leak in the return piping.

It would not be possible to change from steam or zone the house to independently control temperature/humidity in the unoccupied/occupied sections of the house without extensive <u>basement</u> changing of the piping.

The woodwork in the unoccupied areas of the house seems to be holding up nicely after years of minimal heating. Cooler house temperatures avoid the extreme dryness which will result in buildings when outdoor temperatures are low.

The windows and doors on the first and second floors are equipped with aluminium storm windows which will be left on all year long in the visitor area. The attic has no heat and no roof or wall insulation - there is much air leakage into this space. The floor has loose insulation between the joists and more could be added. No wall insulation can be installed in the first and second floor walls and none would be practical in the attic walls and roof.

Generally, each radiator has its own riser and valve which makes it very easy to incorporate more (or less) apartment space with or without heating. The visiting public often wants to view the third floor (possibly after reading the pamphlet) and the only access is via the stairs from the first floor apartment at some inconvenience to the apartment occupants. Access to the stairs is through a large parlor which is now a part of the apartment. A toilet is next to the parlor; this toilet could be used by the visitor (both sexes?). Loss of the use of the parlor and toilet would be a serious space reduction for the apartment occupants. Personally, I can't see climbing two flights to visit accumulations of bat dung which is possibly the most interesting item in that dismal and unheated space.

The plans show bottled gas cylinders, but these are not used for cooking or any other purpose. I did not check to see if the bottles are still in place.

The fireplace flues are stuffed with insulation near the hearths which is a good idea to prevent heat loss in winter.

### PLUIBING OBSERVATIONS:

The water comes from a well across the highway and it sometimes is dark with sediment possibly because of excessive draw-down (the well is also used by others). A new, closer well will be drilled by the Park Service very soon.

Much of the water is in apparently very old steel pipe, with some lengths replaced with copper. There is a large filter near the entrance.

Steel water pipes to the second floor east bathroom were marked as damaged by freezing but these are not visible above the basement level. If these were freeze damaged, it's likely the pipes to the second floor north bath are also damaged.

I note that some lengths of soil pipes have been replaced by modern plastic pipe. The building has two cast iron building drains which exit the south wall at two locations. If only one septic tank exists it would be logical and easier to have only one building drain. It is not impossible that the drain serving the now unused east bathroom does not have a functional septic tank or cesspool.

## ELECTRIC OBSERVATIONS:

The transformer serving this building via an overhead line is on a pole across Route 209 about 150 yards away. The service entrance disconnect in the basement at the north east corner is fused at 60 amperes. The meter exists at this location and the service is 240 volts, 3 wire, single phase.

From the disconnect, wiring goes to five plug fused disconnects for some 15 circuits. Some of the circuits are over-fused. For example, I noted a 30 ampere fuse protecting what I believe is  $\frac{1}{\pi}$ 14 (15 ampere) wire. Region has frequently warmed against this and ordered that all Parks install properly sized "Fusetats" which precludes such an unsafe practice.

The circuit wiring consists of partly armored cable and part modern plastic insulated cable. Most of the basement wiring is poorly installed. In fact, I have never seen such an extensive example of poor wiring. The armored cable gets more dangerous with age, and although its external appearance is bright and looks good, only an insulation test with the meggar will tell how deteriorated its condition is. There are numerous baseboard receptacles, a few wall receptacles, many wall switches and ceiling lights on the first and second floors and a few lights on the third floor. All of these were wired with armor and this cable would be difficult to replace in view of the plastered walls and ceilings.

The Park is presently asking for bids for additional receptacles in the apartment and replacement of the fused panels with a single modern circuit breaker panel. This should correct the overfusing problem. The additional electrical work I will recommend could be incorporated with this work or be done separately as circumstances dictate.

## RECOMMENDATIONS:

- 1. The various safety controls on the boiler, including safety valve be checked for proper operation by someone qualified, if this has not been done.
- "2. The oil fired hot water heater be removed and an electric heated unit of conventional household size be substituted. Any repiping see recommendation below should allow for optimum placement of this heater. The purpose of this replacement is to permit better utilization of the steam boiler.
- 3. After the hot water heater is removed, the oil fired steam boiler should be adjusted for optimum efficiency. The Park has the Fyrite kit necessary; this includes adjustment of the draft by the barometric damper and closure of the opening into the flue resulting from the removal of the water heater. Should the flue still prove inadequate, it may be possible to reduce nozzle size unless cleaning the flue will correct a problem with draft.
- 4. I do not recommend any zoning of the heating system with the present use and equipment. Maintaining minimal (above 32°) heat in the visitor spaces is desirable for preservation and conservation of energy and has been satisfactory so far. Any changes in use should be reviewed and the proper adjustments in heating the spaces taken including adjustment of fuel allowance for the apartment occupants.

- 5. I suggest that insulation can be installed in the floor of the 3rd floor on top of that now in place. If the floor boards are removed, 2" batt insulation without vapor barrier could be installed. Loose insulation could be blown in at less expense. This work should be listed in response to our recent inquiry for listings of such energy saving projects for which funds will possibly be available before long.
- 6. I suggest that a sturdy latch be installed on the apartment side of the swinging door to the third floor. It is possible for someone to gain access to the roof and 3rd floor and then to the lower level via this unlatched door.
- 7. I suggest that any bottled gas cylinders still in the property be removed.
- 8. The fireplaces in the visitor area should not be used. The insulation should be in place in winter, blocking the escape of warm air.
- 9. All the steel potable water pipes including domestic hot water in this building should be replaced with copper. This should be done when the new well is installed since a new well will require a pressure tank and controls in the basement. Also, existing steel pipes to the second floor baths are broken, and these replacement pipes should have shut off and drain valves in the basement. New copper should not and need not be equal in size and complexity to the present system. Note to allow for optimum placement of the above hot water heater. It could be closer to the apartment.
- 10. It might be useful to check the ability of the building drain at the SE corner of the house to dispose of waste water. If non-functional, this may decide for (or against) using certain toilet facilities or restoring broken piping to same. Checking could involve a fixed quantity of water (100 gallons?) to see if back up occurs and/or uncovering the tank or cesspool to observe conditions.
- ll. If the new electric service and fuse boxes are not replaced at once, properly sized Fustats should be installed in all circuits.
- 12. I suggest the new electric panel be a Square D, Type QO which will handle conventional or ground fault interrupter type circuit breakers.

13. If a different panel is installed than recommended above, a second panel Square D, Type QO can be installed. I suggest the armored cable can be made safe in the following manner. Remove each armored cable back to the first basement box and connect a properly sized ground fault type (Quik-Gard) Square D circuit breaker to power this circuit. If the breaker will not hold and the ground cannot be corrected, the circuit should be replaced with modern cable or abandoned or protected via a conventional circuit breaker if abandoning the circuit is unacceptable. If a box doesn't exist, install one at a convenient location. Don't connect the old armor to(or allow it to contact) the grounded panel enclosure. The work should be done by a competent electrician.

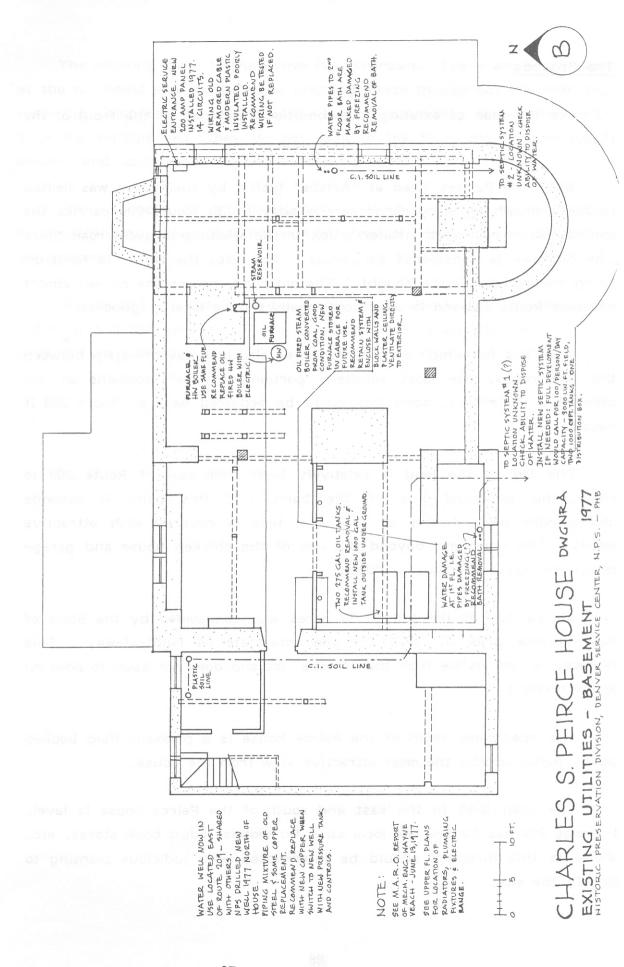
Wayne Veach

APPROVED BY:

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Associate Regional Director, Operations

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## The Grounds

See the plan of existing site conditions included in the front of the report.

When the Peirces lived at "Arisbe" traffic by their door was limited to horse-drawn or early motor car. Today U. S. Route 209 carries the considerable north-south trailer truck traffic wishing to avoid road tolls. The highway is considered dangerous. The site, therefore, is far from being the retreat Peirce sought. The old road, nearer the house, almost parallels Route 209 and is used occasionally by the local neighbors.

The land for which we are concerned also includes the strip between the two roads, the most southern portion of which contains an old cemetery. Potentially some lots could be acquired east of Route 209 if needed.

The lay of the land is relatively level from east of Route 209 to about the westward line of the barn. At this point it ascends increasingly upward and at the same time is covered with attractive woods. The steepness beyond the line of the chicken house and garage is not conducive to casual walking.

At the top of the hill, 1.39 acres was condemned by the State of Pennsylvania prior to 1971 for the Interstate 84 right-of-way. This highway is not visible from the "Arisbe" lot and does not seem to pose an adverse effect.

The open land north of the Peirce house is a pleasant field backed up by dense woods, the most attractive view from the house.

The open land to the east and south of the Peirce house is level. Highway 209 has become the local strip for motels, adult book stores, etc. Views in this direction should be interrupted with judicious planting to benefit the site.

The planting close to the house is overgrown. There are evergreens at the northeast end of the house creating shade throughout the year and fostering dampness in the house walls. Furthermore, these trees date from the Phillips era (they do not show in the 1920s photographs cited earlier) and could therefore be removed.

The land adjacent and particularly west of the house needs grading as presently rainwater does not run off from the area between the house and garage.

The location of the present entrance drive works well with the south entrance and the garage. There is limited parking on site, the overflow uses the old side road.

## The Outbuildings

## Ice House/Spring House/Root Cellar

The interior walls of this structure as well as the floor are lined with poured concrete. The exterior face is pebblestone which needs repointing in a few areas. The retaining walls lining its entrance have collapsed in part and need rebuilding. A new frame and door are needed. The roof structure, post-1936, is sound and need not be changed in anyway until more definite documentation can be had. It is therefore recommended to retain this structure, make it weathertight, rebuild the retaining walls, and supply a new door and frame.

## The Chicken House

The flat-wood siding with rounded edges (reminiscent of dressed logs), and the 6/6 stock sash of the windows help to date this structure post-1936 and therefore a product of the Phillips era. The structure is sound, only needing work on its sash to make them operable, and repair of the porches.

The north door looks to be a misplaced part of the original Peirce house. It is mahogany with two lower panels and four lights above the lock rail. It originally hung from the opposite stile. Its measurements fit the door opening from the Peirce parlor to conservatory. It is recommended that this door be salvaged, restored, and returned to its original opening.

If the chicken house could serve a function and is to be retained, further work may be necessary to update any electric wiring or water supply lines. The chief of maintenance of Delaware Water Gap National Recreation Area suggests that this park has more structures than they can take care of and demolition should be considered.

### The Barn

The barn was built post-1936 by Robert Phillips. Furthermore, in the southern half of it, Mr. Phillips excavated a cellar for a house he was building within the barn walls. The excavation, lined with 8-inch concrete blocks projects more than 9 feet below grade and is close to the barn wall foundation, thus weakening the support for the barn. There are no cross members at the top of the cellar walls. The south cellar wall has bowed inward, taking the barn wall along with it, and allowing the ground outside to subside about 3 feet. It is concluded that the barn structure is unsound and it is recommended not to consider using this structure. It should be removed and the excavation filled.

## The Garage

Built by the Phillips family the four-car garage is a sound structure. It is built into the hill hidden back of the main house. Its second floor with gabled and dormer roof rises above the sloping grade and has a separate entrance by bridge from the south.

The west, north, and south walls of the lower floor are concrete. A chimney is attached at the center of the west wall. The second floor is supported by the east and west walls by four hanger rods from the ridge of the north-south gable roof. The ends of the gables and east dormer are framed with clapboarding and contain openings.

Because of its unobtrusive position, the soundness of its structure, the need in this climate for a garage, and the need for an on-site NPS resident, it is concluded that this building could remain, and be renovated to include an apartment as well as a two-car garage.

From a cursory view of the garage the apartment plan was envisioned to include an entrance along the east wall into a raised and insulated first floor level containing kitchen, dining, and living space. A new stair would lead to the second floor bedroom and bath spaces with

perhaps new large dormers constructed to afford additional head room and a dramatic view of the wooded hill to the west.

One drawback in introducing the apartment into the garage is that surveillance of the property would be somewhat more limited for being from back of the house rather than having a tenant within the house. Therefore, every attempt should be made to design into the apartment access to views of the site. This could be done by additional dormers at the east roof slope to cover views to the north and south of the house.

### V. RECOMMENDATIONS

## The House

The sketch plans and elevations included in this report show considerable change in the form of the Peirce house during the Peirces' life there. To return the house to one of the early states, say to the 1892 renovation which was so architecturally successful, would be extreme and would undo the very labors of Peirce which did effect his life's work.

It is recommended that the house be kept essentially in the form it is today. At the end of Peirce's life the house had reached the present size but portions of it were left without finish sheathing or sash. It would be impossible to be literal by presenting the house unfinished. It is therefore further recommended to complete the exterior of the house as the Peirces intended, c. 1911-14.

This exterior restoration entails the replacement of both the present white-painted shingle siding and green asphalt roofing with natural shingles (which need little maintenance); reconstruction of several openings and a few interior partitions which relate to these openings; reconstruction of missing shutters; and a visual reconstruction of the missing south chimney stack as a veneered wood structure supported at the third floor level.

The present white enamel stock storm sash should be removed and replaced either with weatherstripping to stop infiltration, or with storm sash the frames of which are colored and formed to match the restored openings.

For the interior of the house, if it is to contain an exhibition aimed at the man's achievements rather than to create a house museum, then there need not be a detailed interior restoration. Distracting elements such as post-1936 bathroom installations and the Celotex wall surfaces should be removed. No attempt should be made to restore the varnished trim finish or multi-colored mantlepieces, nor should restoration

wallpapers be applied. These restorations would only divert from the theme of the exhibition. Instead, a muted and recessive wall and trim color should be applied as the backdrop for the exhibit.

The house must be made structurally sound and the utilities must function to allow the installation of exhibits and serve the visitors and staff. Office space, in the house, for the curator/interpretor is necessary (see restoration proposal plans and elevations included in this chapter).

## The Grounds

Of the site, it is recommended to remove the Phillips-era chicken house and barn, but to retain for the time being the root cellar which is probably Peirce in origin. It is recommended not to reconstruct the well. The garage, tucked back of the house, despite its being of Phillips-era is recommended for retention as a combined garage and apartment for an on-site NPS resident.

Of the grounds, it is recommended to restore Peirce plantings around the house as far as is known after removal of the overgrown post-1936 trees. To the north of the house the view should be maintained largely as it is. To the south and east additional scattered trees would help screen the unsightly development along Route 209. It is in this direction, screened by trees, that parking for 20 or so cars could be developed most easily. If proven necessary, a tract east of Route 209 could be acquired for parking buses (see proposed site development included in this chapter).

Particular care must be used in designing signage along Route 209 to safely warn and guide visitors to the entrance.

## Further Research Needed

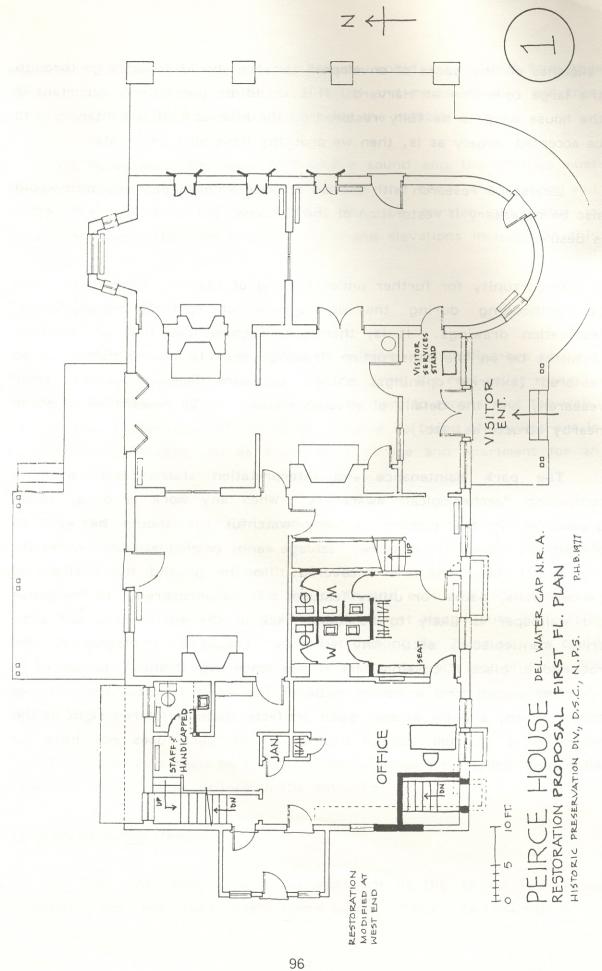
In the short time allowed for research in the Peirce Papers we obviously did not turn over every page. Thus, to find significant

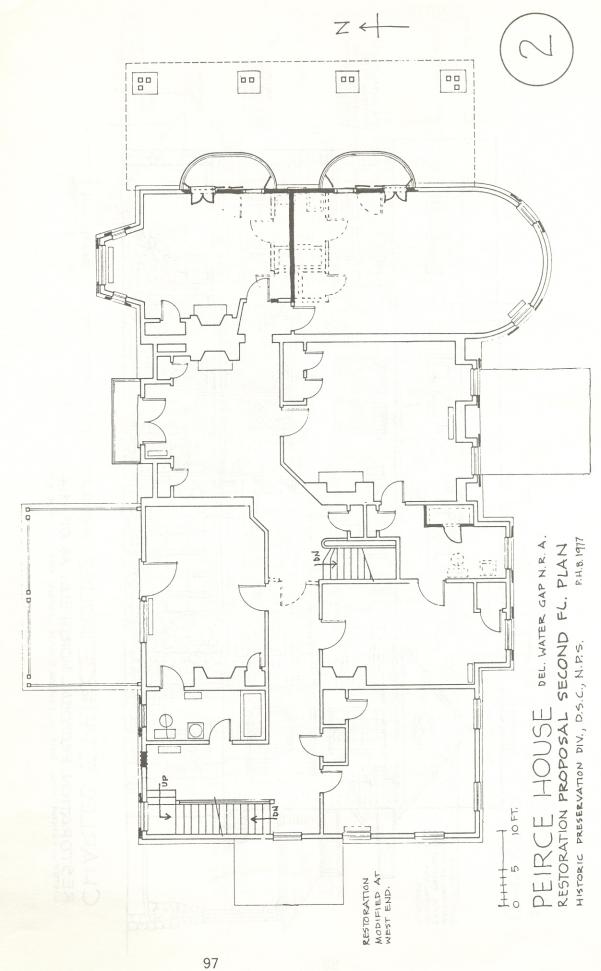
"sketches on the backs of envelopes" someone should someday go through the large collection at Harvard. This would be particularly important if the house were to be fully restored on the interior. If the interior is to be accepted largely as is, then we probably have sufficient data.

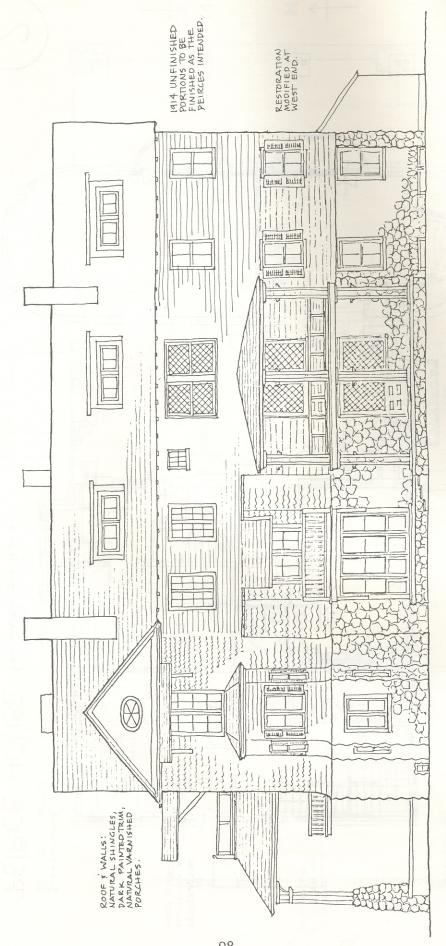
Landscape research with the aid of some archeological research would also be necessary if restoration of the gardens, paths, drives, well, etc., is desired.

Opportunity for further understanding of the structural history will be forthcoming during the development of contract rehabilitation/ restoration drawings. It is, therefore, recommended that an historical architect be on the construction drawings team to record details to be restored (exterior openings, shingle exposure dimensions, paint color research, and the details of missing shutters to be researched at other nearby structures, etc.).

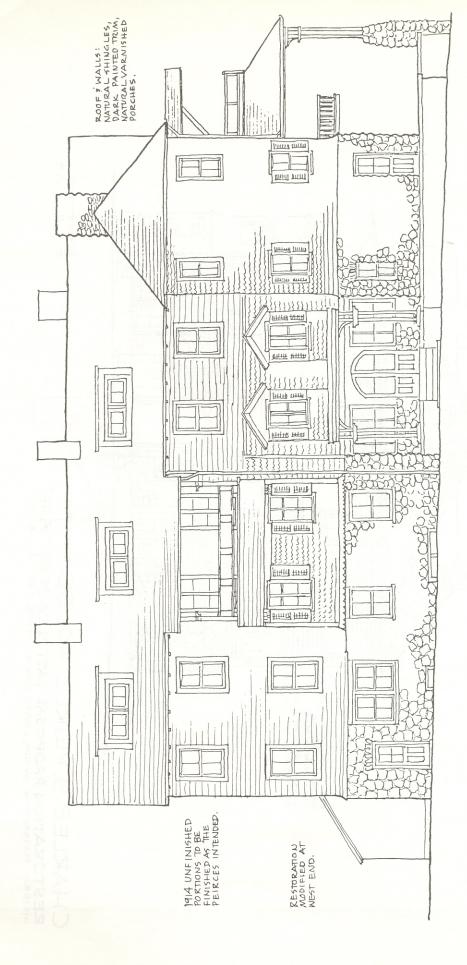
The park maintenance and interpretation staff should adopt a continuing "archeological" awareness. When any work is done, above ground or in the ground, a very watchful eye should be kept to photograph, sketch, measure, salvage and catalogue, and generally record any data which is uncovered. In the ground the position of garden walls, paths, or utility features may be uncovered. In the house old wallpaper is likely to be found back of the surface-mounted wood trim, mantlepieces, etc. Any wallpaper should be photographed and retained in place if possible. If any is loose then it should be stored in acid-free paper, and a record made of the exact location where it was found, when, and by whom. Such artifacts could be stored right at the house in a museum storage cabinet if the park does not have an established collection elsewhere.





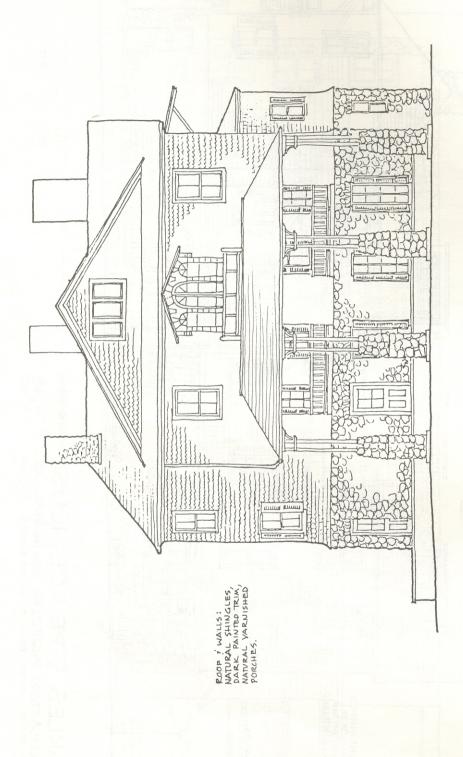


RESTORATION PROPOSAL NORTH ELEY. AS OF "1914"
HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PHIS 177

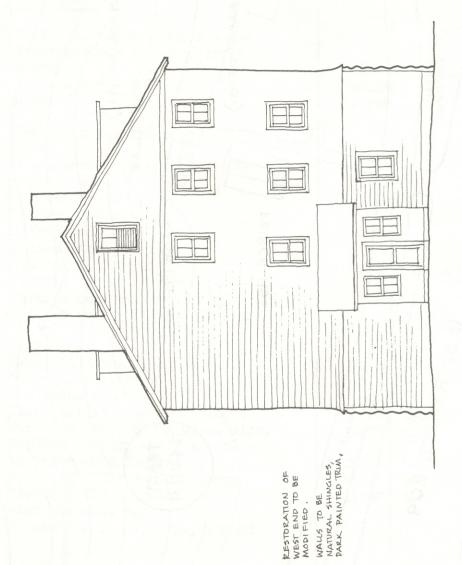


CHARLES S. PEIRCE HOUSE DWGNRA RESTORATION PROPOSAL SOUTH ELEV. AS OF "1914" HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PAR 1977

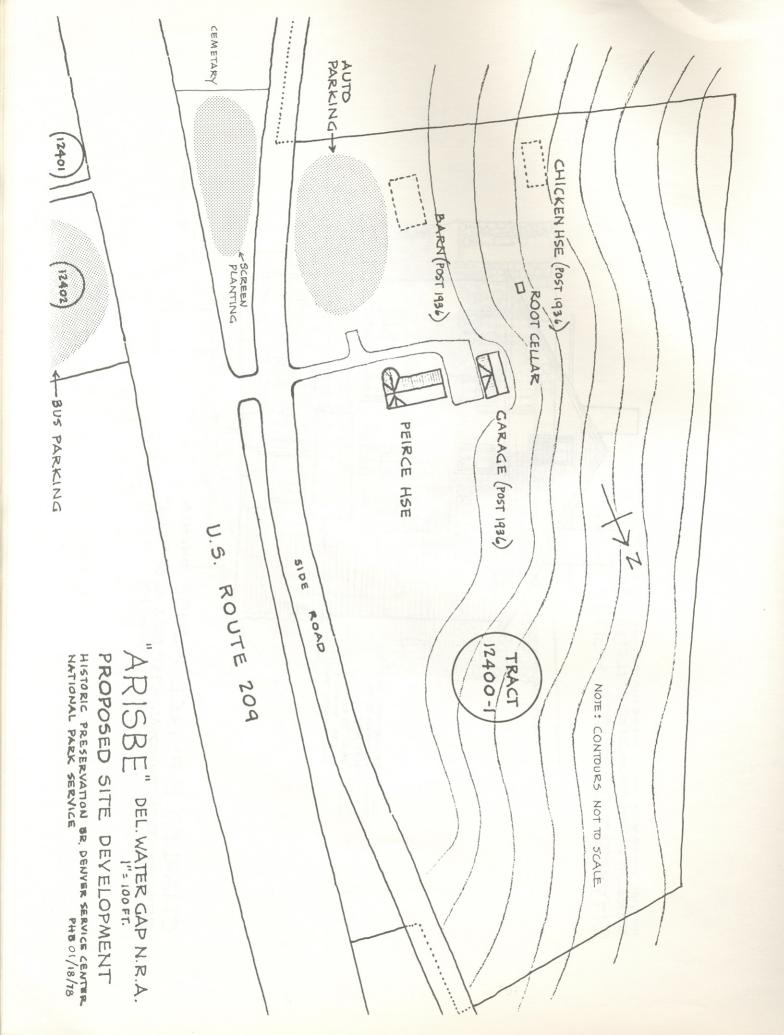
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CHARLES S. PEIRCE HOUSE DWGNRA RESTORATION PROPOSAL EAST ELEV. AS OF " 1914" HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PHB 1977



CHARLES S. PEIRCE HOUSE DWGNRA RESTORATION PROPOSAL WEST ELEY. AS OF "1914" HISTORIC PRESERVATION DIVISION, DENVER SERVICE CENTER, NPS PHB 1977



PRELIMINARY ESTIMATE FOR RESTORATION — 01/18/78

ITEM OR LOCATION	DESCRIPTION	QTY OF UNITS	UNIT	COST	SUB TOTAL
BASEMENT	MAIN HOUSE  Shore up rotted joists using teloposts & 4 x 6 girders  Posts  Beams 4 x 6 - 100 LF  Scabs 2 x 8  New cellarway entrance	20ea 200BM 132BM	40.00	800. 400. 400.	
	2 hr. enclosure at oil burner Plas. clg. Block wall Door, frame, & hdwe Vent duct Locked storage space Block wall 15 x 8 door, frame, & hdwe Termite inspection & fumigation Repairs to windows-operable	120SF	3.00	600 800 500 400 360 500 1,000	
ST & ND LOORS	Ease all doors Main stair repairs Partition changes Three toilet rooms - finishes Remove & replace 75% plas. clgs. Replace celotex walls w/ plas. Refinish wood floors New wood floor - old kitchen Linoleum flr entry Misc. struct. repairs Repainting walls, clgs, & wood	60ea 3ea 700SY 5,000SF 800SF 120SF	50.00 1500.00 2000 100 300 300	3,000. 600. 4,000. 4,500. 14,000. 16,000. 5,000. 2,400. 360. 1,000. 15,000.	
TTIC	Truss rafters 4' o.c. 2 x 10 Misc. rafter repairs Stud support walls 2 x 4 Fighten windows & opgs.	600BM	200	1,200. 1,000. 1,560. 500.	
NSULA- ION	Attic fl. 2nd fl. ext. side walls	2,800SF 1,980SF	1.10	3,080. 3,000.	

PRELIMINARY ESTIMATE FOR RESTORATION - 01/18/78

ITEM OR LOCATION	DESCRIPTION	QTY OF UNITS	UNIT	COST	SUB TOTAL
ROOFING	The real real real real real real real rea	53 SQ	45.00	2,385	
	New sawn shingle roof		300.00	12,700	2,385
	LCC dormer caps, valleys, etc.	in adaho	300.00	6,000	15,900
	New gutters LCC	240 LF	9.00	1,200	2 160
	New downspouts LCC	300 LF	17.40	1,500	2,160 5,220
	1/2" plywood sheathing	5300 SF	1.35	7,155	7,155
	12" wide flashing LCC	525 LF	3.00	1,575	1,575
EXTERIOR	New south entry roof structure	150 SF		3,000	1,575
	Repairs & repl. rotted woodwork	1 comes	ne ways	4,000	250
	New balcony floor 9' x 3'	27 SF		400	99-9-9
	Repair & caulk shingle siding	ud alou	a entrecto	3,000	
	Ease all windows & doors		1 2 2 10	5,000	Section 1
	Broken glass & reputtying		LIE	2,000	about the same of
	Repoint & replace stones		d general	1,000	22
	Replace broken concrete porch	dr.	La dos	1,000	Self-schillender
	Painting all trim only	100	to legacios	10,000	16,000
	1914 Exterior Restoration:			Too Ita	SA S
	Remove existing ext. wall shingles &	and the state of			Wheel O
2	siding. Apply new cured & square				ALTERNATION OF THE PROPERTY OF
Project Control of Lance Control of Control	shingles at \$3 per sq. ft., 500 SF	i domovina a		24,000	24,000
	New railing with glass panels 3rd floor east		500 C		No.
	Two new french doors and two new		P. S. C.	1,000	
	windows 2nd floor east		2000		Section
-	Louvered shutters at 18 openings	4	1,500	6,000	OMS
Z.A.	@ \$300		reguerio c	old lines.	90019
- Sporeston	Restore cellar entrance at SW cor.	Binii - 8	noon deli	5,400	
- Takenes	Remove modern white storm sash,	0.850 374	Sosiger	2,000	The second secon
E) autor	replace with weatherstripping or	A MARKETIA	Agerole:	Regisce	96 000 000
ST CONTRACTOR	dark enamel special storm sash	49	200	da ini tan	Lings
LECTRI-	All new-start from existing 200 amp	49	200	9,800	Service Co.
CAL 9	1 phase	N. 104	¥(+ t1)	25 222	Starf en tra
WORK	Burglar alarm - ultra sonic			35,000	international state
	Fire & smoke detect, system		2 / LOW 115	3,000	APP AND
	Joe System			6,000	New York
UMBING	7 fixtures & new elec. HWH			12,000	er/s/s-channer
EATING	No. 1000 1 1 1 1 1				SECTION
3	New 1000 gal, buried oil tank			3,000	
and the second	Misc. piping changes & repair			2,000	N. September 1
Appr Clauda					Control of the Contro
all-14-400	Service Control of the Control of th	200	C) And A		
-One-lea		Section 1	Orania Company		300 - 100 -
a.liv.yma	M. C.	all and a second			
	automaterial participation of the control of the co	ancia-cultural			
Name of the state	FOR MAIN HOUSE	to the second se			236,160
To the second se	Add No.	-skilline in Si			200, ±00
MERCHANISM CONTRACTOR		Chiadre trillan	September 1		
Production	104	and other states	EN ELS-KA		
Survey.		57			1

PRELIMINARY ESTIMATE FOR RESTORATION - 01/18/78

ITEM OR LOCATION	DESCRIPTION	QTY OF UNITS	UNIT	COST	SUB TOTAL
GARAGE APART- MENT	Create an apartment using space over garage (504 SF) and half of ground fl (440 SF) incl. separate elec. & domestic water meters  FOR GARAGE APARIMENT	<b>9</b> µµ sf	35.00	33,000	33,000.
SITE	Barn & Chicken House to be demolished Back fill for barn exc. @ \$10/CY x 45/CCY Root cellar - repair door and wall Parking for 20 cars, paths, & lighting Parking lot 4 buses east of Rt. 209 Landscaping - removal trees around house, seed, sod, new planting Signage Water supply system from new well Site Drainage New septic system 3,000 LF tile, 2-10COCF tanks, and dist. box FOR SITE WORK TOTAL FOR BUILDING RESTORATION & SITE WORK CONTINGENCY (15%) TOTAL ESTIMATED COST OF WORK FURTHER ARCHEOLOGICAL & ARCHITECTURAL RESEARCH, PRELIMINARY DRAWINGS, CON- TRACT DOCUMENTS, NATIONAL PARK SER- VICE SUPERVISION, COORDINATION ADMINISTRATION & OTHER FACILITATING	450CY	10.00	4,000 4,500 3,000 15,000 5,000 5,000 12,000	79,500. -348,660. 52,299. -400,959.
	SERVICES.  BUDGET COST				- 258,464.
	NOTE: 1) Prices are for Nov. 1977  Inflation factor must be applied. 2) Exhibits and furnishings are not included				659,423.

# APPENDIX A DICTIONARY OF AMERICAN BIOGRAPHY

Charles Scribner's Sons, N.Y. Vol. 14

PEIRCE, CHARLES SANDERS (Sept. 10, 1839-Apr. 19. 1914), philosopher, logician, scientist, the founder of pragmatism, was born in Cambridge, Mass., the second son of Benjamin Peirce [g.v.] and Sarah Hunt (Mills) Peirce, daughter of Elijah Hunt Mills [q.v.]. He was a brother of James Mills Peirce [q.v.]. His father, the foremost American mathematician of his time, an inspiring and unconventional teacher, and a man of forceful character and wide interests, supervised the boy's education to such an extent that Charles could later say, "he educated me, and if I do anything it will be his work." However, Charles had learned to read and to write without the usual course of instruction. He had had independent recourse to encyclopedias and other works for information on out-ofthe-way subjects. He showed an intense interest in puzzles, complicated and mathematical card tricks, chess problems, and code languages,

e ni qu shguesd need bed ed sadt bias eorie9 precision. as fort, been lauded by comperent men for its been reported, his scientific work has, for the modern metrology. Though inaccuracies have which has since played an important rôle in ray as a standard unit of measure, a procedure first attempted to use the wave length of a light nated his active scientific career. It was he who ceased to work for the government, and termisatisfaction with the conduct of the Survey, he his operations too leisurely, or because of his disbecause his experiments had proved too costly or assistant in gravity research. But in 1891, either and from 1884 to 1891 was retained as a special national commission of weights and measures, the assay commission of 1888, sat on the inter-Geodetic Survey in 1884-85; was a member of and measures of the United States Coast and emy of Science. He had charge of the weights Sciences and a member of the National Acadtellow of the American Academy of Arts and by Helmert. In that year (1877) he was elected originality in pendulum work has been signalized knowledged their indebtedness to him, and his congress. Plantamour and Cellérier have achis results, to receive a vote of approval of the delegates had had the opportunity to investigate But he returned two years later, after the other aroused great discussion and much opposition. subject to a hitherto undetected inaccuracy report there that pendulum experiments were gate, the international geodetic conference. His tions, and to attend, as the first American delewas sent abroad to make pendulum investigaity investigations. Two years later, in 1875, he nautical almanac and placed in charge of grav-In 1873 he was made assistant computor for the ant there, holding the latter position until 1884. Survey and the following year became an assist-In 1871 he was in temporary charge of the Coast in his lifetime. It contains material still of value. searches (1878), the only book of his published observations contained in Photometric Refrom 1872 to 1875, there made the astronomical as an assistant at the Harvard Observatory and, logic. Meanwhile, from 1869 to 1872, he worked The next year he was the university lecturer on university lectures in philosophy, for 1869-70. James Elliott Cabot, and John Fiske he gave the Ralph Waldo Emerson, George Park Fisher, ence, and as one of a select group which included lectured at Harvard on the philosophy of sciinterest in philosophy persisted. In 1864-65 he summe cum lands, the first of its kind. But the next year the degree of Sc.B. in chemistry, received an M.A. degree from Harvard and the

independent a mind to distinguish himself under ninth. He was apparently too young and of too years, and in the senior year ranked seventy-Was seventy-first out of ninety-one for the four class. But his scholastic record was poor. He Harrard in 1859, one of the youngest in his bathernatician. Charles was graduated from elder brother, himself destined to become a mathematics beyond even the purview of the the room, they would deal with problems in cussions together, in which, pacing up and down that time, they also began to have frequent disthe benefit of his father's instruction. About he entered Harvard in 1855. At college he again well's school, where he was prepared for college, for his declamations. After a term at E. S. Dixbridge High School, where he was conspicuous to local private schools and then to the Camprinciples for himself. Charles was also sent examples, and encouraged him to work out the would present him with problems, tables, or theorem disclosed to the son. Instead, the father education. Rarely was any general principle or were directed towards Charles's mathematical of wines. The father's main efforts, however, his own expense, Charles became a connoisseur put himself under the tutelage of a sommelier at of sensuous discrimination, and later, having isther also encouraged him to develop his power with undiminished power far into the night. His helped Charles, though ill and in pain, to write every error. In later years this training perhaps ning until sunrise, the father sharply criticizing of double dummy together, from ten in the eve-From time to time they would play rapid games father trained him in the art of concentration. tered Whately's Elements of Logic (1826). His At thirteen he had read and more or less maswith Liebig's bottles of quantitative analysis. his own chemical laboratory, experimenting istry of his own accord, and at twelve set up his playmates. At eight he began to study chemsome of which he invented for the amusement of

the rigid Harvard system of those days.

His father wanted him to be a scientist. Peirce he jestered. Not only was he doubtful whether he should devote himself to a life with so few material benefits, but he was drawn to philosophy as well. At college he had already read Schiller's desiral benefits, and had been led to a study of Kant's Kritik der Reinen Vernunft which he knew "almost by heart." In July 1861, however, he joined the United States Coast Survey, with which he temained for thirty years, living which he temained tor thirty years, living wherever his investigations led him. About that there we had a spent six months studying the technics he also spent six months studying the technics is a spent six months studying the technics at all sessitions with Agassiz. In 1862 he

publishers, who preferred elementary textbooks

and perhaps the writings of a man in an aca-

demic chair. Many of his more important writ-

ings on logic, among which are his detailed papers on his new science of semiotics, he neval published, and the final appreciation of his full strength and importance as a logician awaits the assimilation of the posthumous papers.

Benjamin Peirce, in a public address in the late sixties, said that he expected Charles to go beyond him in mathematics. In the early eighties. J. J. Sylvester, the great mathemath cian of the day, is reported to have said of Charles that he was "a far greater mathema; cian than his father." However, Charles published only a few papers on pure mathematics. His concern was with the more dimcult and fas, cinating problem of its foundations. In 1867 it his paper, "Upon the Logic of Mathematics" (Proceedings of the American Academy of Arts and Sciences, Sept. 10, 1867, vol. VII, 402-12: Collected Papers, vol. III), he clearly anticipated the method for the derivation and definition of number employed in the epochal Principia Mathematica (3 vols., 1910-13) of A. N. Whitehead and Bertrand Russell. He edited with important notes and addenda (Collected Papers. vol. III) his father's Linear Associative Algebra (in American Journal of Mathematics, July, Sept. 1881), having originally, in the sixties, interested his father in that work. He showed, among other things, that every associative algebra can be represented by one whose elements are matrices. He also made a number of contributions, over a period of years, to the theory of aggregates and transfinite arithmetic, his work often anticipating or running parallel with the heralded work of Richard Dedekind and Georg Cantor. Many of his unpublished studies in such subjects as analysis situs were subsequently repeated by other and independent investigators. Had all his mathematical papers been published in his lifetime, he would have been a more important factor in the history of mathematics than he is today. His work on the logical and philosophical problems of mathematics remains, however, among the foremest in the field.

Pragmatism, Peirce's creation, had its origin in the discussions, in Cambridge, of a fortnightly "metaphysical club" founded in the seventies. Oliver Wendell Holmes, the jurist, John Fiske, and Francis E. Abbot were members. But more important for the history of pragmatism were Chauncey Wright [q.v.], a philosopher of power with whom Peirce had frequent heated but profitable discussions; William James [q.v.], Peirce's lifelong friend and benefactor, in whose honor he seems later to have adopted the middle name "Santiago" ("St. James" in Spanish);

and Nicholas St. John Green, a lawyer and follower of Bentham who had a tendency to interpret doctrines in terms of their effect upon social life. It had been Kant's emphasis on formal logic which drove Peirce to take up that subject, the history of which he studied with characteristic thoroughness. His interest in the history of logic, in turn, was largely responsible for his contact with the schoolmen. By 1871 he was converted to Duns Scotus' version of realism, a position which he held throughout his life. In the very paper in which Peirce first expounded his Scotistic realism and criticized the nominalism of Berkeley, he roughly outlined the pragmatic position (North American Review, Oct. 1871, pp. 449-72). The first definite statement of Peirce's or the pragmatic principle, as it is alternatively called, was not given, however, until 1878. It is contained in a paper, originally written in French in 1857 while he was on his way to the international geodetic conference, later translated by him into English, and published in the Popular Science Monthly in January 1878, under the title "How to Make Our Ideas Clear." It was the second of a series of six articles dealing mainly with problems in legic (Nov. 1877, Jan., Mar., Apr., June, Aug. 1878; Collected Papers, vol. V, book II; vol. II, book III, B; vol. VI, book I). Together with the first paper of that series which he translated into French, it was published in the Recrue Philostriction (Dec. 1878, Jan. 1879). In that article he formulated, as the most important device for making ideas clear, the principle that we are to "Consider what effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our con-Prion of the object" (Popular Science Monthly Jan. 1878, p. 293; Collected Papers, vol. V, Par. 402). This formula has been ridiculed for its awkward and somewhat bewildering repetition, but Peirce contended that he chose each word deliberately, wishing to emphasize that it was concerned with concepts and not with things and was a principle of method rather than a propesition in metaphysics. As usual, he was to receive no recognition for his work until another man called attention to it much later. In 1898 William James first publicly used the term "pragmatista" and acknowledged Peirce's priority in the creation of the doctrine and the name it bears. Peirce's pragmatism, however, is not the same as James's; it has more in common with the somewhat independently developed idealism of Josiah Payce and the later views of John Dewey. In act, when James heard Peirce lecture on prag-

matism in 1903 he confessed that he could not understand him. On the other hand, Peirce soon rebelled against the characteristic twists which James and others gave to pragmatism. In 1905 he coined the term "pragmaticism." which was "ugly enough to be safe from kidnappers" (Monist. Apr. 1905, p. 166; Collected Papers, V, par. 414), to characterize his own views; these included much (such as the idea of an Absolute and a belief in universals) that the other pragmatists were disposed to discard. For his version of the doctrine he had but few supporters, and most of these were not in America.

Peirce did share, though, many of the views characteristic of the pragmatic school, developing them in his own, independent fashion. He was a firm believer in the dependence of logic on ethics, argued as early as 1868 against individualism and egoism, and developed social theories of reality and logic. His most important published philosophical contributions, however, are those that embody his cosmology. They are contained in a series of five articles written for the Monist (Jan. 1891-Jan. 1893; Collected Papers, vol. VI). There he vigorously opposed the mechanical philosophy, defended the reality of absolute chance and the principle of continuity, attempting to solve the hallowed problem of the relation of mind and body, to explain the origin of law, to account for the impossibility of exactly verifying the laws of nature, and to develop his theory of an evolutionary universe. Dewey, James, and Paul Carus, among others, were quick to recognize their importance. The latter, who was the editor of the Monist, engaged Peirce in controversy, providing him with some of the space necessary for the further clarification of his position. Though Peirce's tychism, or theory of absolute chance, received more consideration and favorable attention, it was his synechism, or doctrine of continuity, which he considered his real contribution to philosophy, holding it to be, however, a regulative principle rather than an ultimate absolute metaphysical doctrine. His characteristic metaphysical views do not seem to have been wholeheartedly accepted by any established philosopher during his lifetime, though James, Royce, and Dewey have unmistakably acknowledged his influence.

Peirce was not given the opportunity to teach for more than eight years during his entire life. His longest academic connection was with the Johns Hopkins University where he was a lecturer on logic from 1879 to 1884. Apart from his early Harvard University lectures of 1864, 1869, and 1870, he lectured three times before the Lowell Institute: in 1866 on logic, in 1892 on

we listery of science and in 1963 on logic. The acity other official or semi-official contact be or no to have had with students was through a he ture on number at Bryn Mawr in 1896, three or four lectures on "detached topics" delivered at Mrs. Ole Bull's in Cambridge in 1898, his seven lectures on pragmatism at Harvard in 1993, and two lectures on scientific method before the philosophy club at Harvard in 1907. Yet he was an inspiring teacher. Too advanced perhaps for the ordinary student, he was a vital formative factor in the lives of the more progressive ones, who remembered him later with affection and reverence. He treated them as intellectual equals and impressed them as having a profound knowledge of his subject. Of his small class in logic at Johns Hopkins, four, one of whom was Christine Ladd-Franklin [q.v.], made lasting contributions to the subject in a book which he edited and to which he contributed (Studies in Logic. By Members of the Johns Hofkins University, 1883). His love of precision made it impossible for him to make a popular appeal, and he had no capacity for making himself clear to large numbers. This failing would perhaps have been considerably overcome if he had had the opportunity to come into more contact with students who challenged his statements and demanded explications. There is some justice in James's remark that Peirce's lectures were "flashes of brilliant light relieved against Cimmerian darkness" (Pragmatism, 1907, p. 5), though the lectures on pragmatism, which this phrase was supposed to characterize. are lucid when placed against the background of his entire system. He would buttress his ideas with a technical vocabulary, creating odd new terms in his attempt to articulate new ideas, trying to cover vast fields in limited space. He did at times show a sudden gift for clear expression, but he lacked the ability to know where further explanation was necessary.

He was eager to teach, but personal difficulties barred his way. He had described himself when a senior at college as being vain, snobbish, uncivil, reckless, lazy, and ill-tempered. He certainly was not lazy out of college. But he was always somewhat proud of his ancestry and connections, overhearing towards those who stood in his way, indifferent to the consequences of his acts, quick to take affront, highly emotional, easily duped, and with, as he puts it, "a reputation for not finding things." He was irregular in his hours, forgetful of his appointments, and, later, careless of his personal appearance. This dark-bearded man of stocky build and medium height with a short neck and bright dark eyes

could, however, be charming at social agree ings, recite with skill and converse delightery he was singularly free from academic leakany and he could work twenty hours at a stretch on a subject for which he had for years failed ... find a publisher. A "queer being" James caphim. Peirce himself felt there was something peculiar in his inheritance and put emphasis the fact that he was left-handed. He could, how ever, write with both hands-in fact, he was capable of writing a question with one haand the answer simultaneously with the other In his years of early promise his peculiar train were certainly no serious handicap to an amdemic career. But not only, as he regretted to his father neglected to teach him moral control, so that he later "suffered unspeakably! but he had domestic difficulties as well. On Oct 16, 1862, when twenty-three years old, he had married Harriet Melusina Fay, three years his senior, a grand-daughter of Bishop John Henry Hopkins [q.r.]. She joined him in his early seientific work, was respected in Cambridge circles. and afterward distinguished herself as an erganizer and writer. He divorced her on Apr. 24, 1883. in Baltimore, alleging she had deserted him in October 1876. Shortly afterward, he writes that he married Juliette Froissy of Nancy. France, with whom he lived for the rest of bis life and who survived him. His difficulties with his first wife seem to have been an important factor in his loss of academic standing and the partial estrangement of his friends and relatives.

Having inherited some money, he retired in 1887, when only forty-eight years old, to "the wildest county of the Northern States" near Milford. Pa. There he secured a house and tract of land, and fortressed by his large and select library of scientific and philosophic works, many of which were of considerable value, he devoted himself to his writings on logic and philosophy. At the same time he wrote all the definitions on logic, metaphysics, mathematics, mechanics, astronomy, astrology, weights, measures, and universities for the Century Dictionary (6 vols., 1880-01), and a gradually increasing number of book reviews on a wide range of topics for the Nation. He records that he wrote about 2.000 words a day. This was done with care and in a clear hand. Having a remarkable capacity for self-criticism, on which he prided himself, he would work over his copy, rewriting it as often as a dozen times, until it was as accurate and as precisely worded as he could make it. More often than not, the final manuscript, which might have involved weeks of work, would not be published, but together with all the preceding drafts and miscellaneous scraps incidental to its writing would be allowed to remain on his tables. Immediately, with the same enthusiasm, he would begin another formulation or start on a new topic, to be subjected to the same treatment. He has characterized himself as having the per-

sistency of a wasp in a bottle.

As a young man he had little control over his money; he always remained extravagant. By his retirement from the Survey, he had cut off his government salary of \$3,000, and had to live on what he could glean from his occasional lectures, sales of his books, translations, private tutoring, collaboration on dictionaries, work as a consultant, and from private donations. In his home he built an attic where he could work undisturbed or, by pulling up the ladder, escape from his creditors. Though he had been employed by J. M. Baldwin in 1901 to write most of the articles on logic for the Dictionary of Philosophy and Psychology (3 vols. in 4, 1901-05), by 1902 he was in debt and on the verge of poverty, doing his own chores and dissipating his energies in small tasks in order to obtain immediate funds. He then applied to the Carnegie Fund for aid in getting his works published. Nine years before he had planned a twelve-volume work on philosophy, which he had to give up, despite many indorsements from leading persons, for lack of subscribers. Now he proposed to submit thirty-six memoirs, "each complete in itself, forming a unitary system of logic in all its parts." These memoirs were to be submitted one at a time and to be paid for when and as approved. Though his proposed memoirs would have dealt with vital issues, and though his application was accompanied by eulogistic letters from the greatest men of the time, his application was rejected, the official reason being that logic was outside the scope or the fund, not being a "natural science." By 1906 he had ceased to review for the Nation and had lost most of his other sources of income; the next year he was practically penniless. Under James a small fund, barely enough to keep Peirce and his wife alive, was secured for him through appeals to old friends and appreciative students. He published for three years—papers on logic, pragmatism, epistemology, and religion which are among the best he ever wrote. By 1909 he was a very ill man of seventy, compelled to take a grain of morphine daily to stave off the pain. With undiminished persistency, forming his letters to judge from the tremulous, painstaking script with great difficulty, he kept on writingor rather rewriting, for by that time he had final-'y ceased to be original. Five years later he died of cancer, a frustrated, isolated man, still working on his logic, without a publisher, with scarcely a disciple, unknown to the public at large.

After his death his manuscripts were bought from his wife by the Harvard philosophy department (for their publication, see bibliography). There are hundreds of them, without dates, with leaves missing, unpaginated and disordered; there are duplicates and fragments, repetitions and restatements. His interests were not restricted to logic, pragmatism, metaphysics, mathematics, geodesy, religion, astronomy, and chemistry. He also wrote on psychology, early English and classical Greek pronunciation. psychical research, criminology, the history of science, ancient history, Egyptology, and Napoleon, prepared a thesaurus and an editor's manual, and did translations from Latin and German. James called Peirce the most original thinker of their generation: Peirce placed himself somewhere near the rank of Leibniz. This much is now certain; he is the most original and versatile of America's philosophers and America's greatest logician.

[For years futile attempts were made to organize Peirce's papers; he had himself said that he could not have put them together. In 1927, however, Charles Hartshorne and Paul Weiss thought they saw a systematic connection between most of them, and prepared a ten-volume selection, now in process of publication as Collected Papers of Charles Sanders Peirce (5 vols., 1931-34). The foregoing sketch is based mainly on these papers, aurobiographical notes, and letters and reminimeness of his relatives, friends, and pupils. See also R. S. Rantoul, Essex Institute Hist. Colls. XVIII (1881), 161-76; articles in Jour. of Philosophy, Psychology and Scientific Methods, Den. 21, 1916, by Josiah Royce, Fergus Kernan, John Dewey, Christine Ladd-Franklin, Joseph Jastrow, and M. R. Cohen; Chance, Love and Logic (1923), ed. by M. R. Cohen; Chance, Love and Logic (1923), ed. by M. R. Cohen, containing some of Peirce's published philosophical papers, an introduction, and an almost complete bibliography; F. C. Russell, "In Memoriam Charles Peirce," Monist, July 1914; E. W. Davis, "Charles Peirce at Johns Hopkins," Mid-West Quart., Oct. 1914; Harrarl College, Records of the Class of 1839 (1896); F. C. Peirce, Peirce Genealogy (1880); obituary in Boston Evening Transcript, Apr. 21, 1914.]



c. 1889 solution to second floor corridor and stair apparently in hand of C.S. Peirce.

copy from collection of Max H. Fisch, Peirce Edition Project.

Appendix F'

[Hand of C.S. Peirce post 1892 - Library shelving for Study, back of chimney in semi-circular addition.]

anista

10 inch shelves

Backof			Between Doora window Gack of Cylinder	
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15	13	12	11	10
15	13	13	1)	1,
	13	14	"-	12
7	13	14		13
19	15	14	13	14

[Peirce Papers, Houghton Library]

### APPENDIX B

# DICTIONARY OF SCIENTIFIC BIOGRAPHY Vol. 10

**PEIRCE, CHARLES SANDERS** (b. 10 September 1839, Cambridge, Massachusetts; d. 19 April 1914, Milford, Pennsylvania), logic, geodesy, mathematics, philosophy, history of science.

Peirce frequently asserted that he was reared in a laboratory. His father, Benjamin Peirce, was professor of mathematics and natural philosophy at Harvard University at the time of Charles's birth; he personally supervised his son's early education and inculcated in him an analytic and scientific mode of thought. Peirce attended private schools in Cambridge and Boston; he was then sent to the Cambridge High School, and, for a term, to É. S. Dixwell's School, to prepare for Harvard. While at college (1855-1859). Peirce studied Schiller's Aesthetische Briefe and Kant's Kritik der reinen Vernunft, both of which left an indelible mark on his thought. He took the M.A. at Harvard (1862) and the Sc.B. in chemistry, summa cum laude, in the first class to graduate from the Lawrence Scientific School (1863). Despite his father's persistent efforts to encourage him to make a career of science, Peirce preferred the study of methodology and logic.

Upon graduation from Harvard, Peirce felt that he needed more experience in methods of scientific investigation, and he became a temporary aide in the U.S. Coast Survey (1859). For six months during the early 1860's he also studied, under Louis Agassiz, the techniques of classification, a discipline that served him well in his logic research. Like Comte, Peirce later set up a hierarchy of the sciences in which the methods of one science might be adapted to the investigation of those under it on the ladder. Mathematics occupied the top rung, since its independence of the actualities in nature and its concern with the framing of hypotheses and the study of their consequences made its methodology a model for handling the problems of the real world and also supplied model transforms into which such problems might be cast and by means of which they might be resolved:

Peirce was appointed a regular aide in the U.S. Coast Survey on I July 1861 and was thereby exempted from military service. On 1 July 1867 he was appointed assistant in the Survey, a title he carried until his resignation on 31 December 1891. In the early days his assignments were diverse. He observed in the field the solar eclipse of 1869 in the United States and selected the site in Sicily from which an American expedition—headed by his father and including both himself and his wife—observed the solar eclipse of 22 December 1870. He was temporarily in charge of the Coast Survey Office in 1872, and on 30 November of that year his father appointed him to "take charge of the Pendulum Experiments of the Coast Survey." Moreover he was to "investigate the law of deviations

of the plumb line and of the azimuth from the spheroidal theory of the earth's figure." He was further directed to continue under Winlock the astronomical work that he had begun in 1869, while an assistant at the Harvard College Observatory; his observations, completed in 1875, were published in 1878 in the still important Photometric Researches. He was an assistant computer for the nautical almanac in 1873, and a special assistant in gravity research from 1884 to 1891. During the 1880's, however, Peirce found it increasingly difficult, under the changing administration of the Survey, to conform to the instructions issued him; in 1891 he tendered a forced resignation and left government service. (In 1962 a Coast and Geodetic Survey vessel was named for him, in somewhat belated recognition of his many contributions.)

Peirce's astronomical work, which he began in 1867, was characterized as "pioneer" by Solon I. Bailey, director of the Harvard Observatory in 1920. Peirce attempted to reform existing scales of magnitudes with the aid of instrumental photometry, and he investigated the form of the galactic cluster in which the sun is situated, the determination of which was "the chief end of the observations of the magnitude of the stars."

From April 1875 to August 1876 Peirce was in Europe to learn the use of the new convertible pendulum, "to compare it with those of the European measure of a degree and the Swiss Survey," and to compare his "invariable pendulums in the manner which has been usual by swinging them in London and Paris." In England he met Lockyer, Clifford, Stokes, and Airy; and in Berlin, Johann Jacob Baeyer, the director of the Prussian Geodetic Institute, where Peirce compared the two standards of the German instrument and the American one. He was invited to attend the meetings of the European Geodetic Association held in Paris during the summer of 1875, and there made a name as a research geodesist. His discovery of an error in European measurement, which was due to the flexure of the pendulum stand, led to the important twenty-three-page report that Plantamour read for him at Geneva on 27 October 1877. The first Peirce pendulum was invented in June 1878 and superseded the Repsold model used in the Coast and Geodetic Survey. Although the United States did not become a member of the International Geodetic Association until 1889, Peirce's geodetic work was widely recognized. His paper on the value of gravity, read to the French Academy on 14 June 1880, was enthusiastically received, and he was invited to attend a conference on the pendulum of the Bureau des Longitudes.

In 1879 Peirce succeeded in determining the length

of the meter from a wavelength of light. Benjamin Peirce described this feat, an adumbration of the work of Michelson, as "the only sure determination of the meter, by which it could be recovered if it were to be lost to science." By 1882 Peirce was engaged in a mathematical study of the relation between the variation of gravity and the figure of the earth. He claimed that "divergencies from a spherical form can at once be detected in the earth's figure by this means," and that "this result puts a new face on the relation of pendulum work to geodesy."

Peirce's mathematical inventiveness was fostered by his researches for the Coast Survey. His theory of conformal map projections grew out of his studies of gravity and resulted in his quincuncial map projection of 1876, which has been revived by the Coast Survey in chart no. 3092 to depict international air routes. This invention represented the first application of elliptic functions and Jacobian elliptic integrals to conformal mapping for geographical purposes. Peirce was further concerned with topological mapping and with the "Geographical Problem of the Four Colors" set forth by A. B. Kempe. The existential graphs that he invented as a means of diagrammatic logical analysis (and which he considered his chef d'oeuvre) grew out of his experiments with topological graphic elements. These reflect the influence on his thought of Tait's historic work on knots and the linkage problems of Kempe, as well as his own belief in the efficacy of diagrammatic thinking.

Peirce's interest in the linkage problem is first documented in the report of a meeting of the Scientific Association at the Johns Hopkins University, where Peirce was, from 1879 to 1884, a lecturer in logic and was closely associated with members of the mathematics department directed by J. J. Sylvester. (It was Sylvester who arranged for the posthumous republication, with addenda and notes by Charles Peirce, of Benjamin Peirce's Linear Associative Algebra.) Peirce hadpersuaded his father to write that work, and his father's mathematics influenced his own. J. B. Shaw has pointed out that two other lines of linear associative had been followed besides the direct one of Benjamin Peirce, one by use of the continuous group first announced by Poincaré and the other by use of the matrix theory first noted by Charles Peirce. Peirce was the first to recognize the quadrate linear associative algebras identical with matrices in which the units are letter pairs. He did not, however, regard this combination as a product, as did J. W. Gibbs in his "Elements of Vector Analysis" of 1884. Gibbs's double-dot product, according to Percey F. Smith, "is exactly that of C. S. Peirce's vids, and accordingly the algebra of dyadics based upon the double-dot law

of multiplication is precisely the matricular algebra" of Peirce. In his *History of Mathematics*, Florian Cajori wrote that "C. S. Peirce showed that of all linear associative algebras there are only three in which division is unambiguous. These are ordinary single algebra, ordinary double algebra, and quaternions, from which the imaginary scalar is excluded. He showed that his father's algebras are operational and matricular." Peirce's work on nonions was to lead to a priority dispute with Sylvester.

By the time Peirce left the Johns Hopkins University, he had taken up the problem of continuity, a pressing one since his logical analysis and philosophical interpretation required that he deal with the infinite. In his 1881 paper "Logic of Number," Peirce claimed to have "distinguished between finite and infinite collections in substantially the same way that Dedekind did six years later." He admired the logical ingenuity of Fermat's method of "infinite descent" and used it consistently, in combination with an application of De Morgan's syllogism of transposed quantity that does not apply to the multitude of positive integers. Peirce deduced the validity of the "Fermatian method" of reasoning about integers from the idea of correspondence; he also respected Bolzano's work on this subject. He was strongly impressed by Georg Cantor's contributions, especially by Cantor's handling of the infinite in the second volume of the Acta Mathematica. Peirce explained that Cantor's "class of Mächtigkeit aleph-null is distinguished from other infinite classes in that the Fermatian inference is applicable to the former and not to the latter; and that generally, to any smaller class some mode of reasoning is applicable which is not applicable to a greater one." In his development of the concept of the orders of infinity and their aleph representations, Peirce used a binary representation (which he called "secundal notation") of numbers. He eventually developed a complete algorithm for handling fundamental operations on numbers so expressed. His ingenuity as an innovator of symbolic notation is apparent throughout this work.

Peirce's analysis of Cantor's Menge and Mächtigkeit led him to the concept of a supermultitudinous collection beyond all the alephs—a collection in which the elements are no longer discrete but have become "welded" together to represent a true continuum. In his theory of logical criticism, "the temporal succession of ideas is continuous and not by discrete steps," and the flow of time is similarly continuous in the same sense as the nondiscrete superpostnumeral multitudes. Things that exist form an enumerable collection, while those in futuro form a denumerable collection (of multitude aleph-null). The possible different courses

of the future have a first abnumeral multitude (two raised to the exponent aleph-null) and the possibilities of such possibilities will be of the second abnumeral multitude (two raised to the exponent "two raised to the exponent aleph-null"). This procedure may be continued to the infinitieth exponential, which is thoroughly potential and retains no relic of the arbitrary existential—the state of true continuity. Peirce's research on continuity led him to make an exhaustive study of topology, especially as it had been developed by Listing.

Peirce's philosophy of mathematics postulated that the study of the substance of hypotheses only reveals other consequences not explicitly stated in the original. Mathematical procedure therefore resolves itself into four parts: (1) the creation of a model that embodies the condition of the premise; (2) the mental modification of the diagram to obtain auxiliary information; (3) mental experimentation on the diagram to bring out a new relation between parts not mentioned in its construction; and (4) repetition of the experiment "to infer inductively, with a degree of probability practically amounting to certainty, that every diagram constructed according to the same precept would present the same relation of parts which has been observed in the diagram experimented upon." The concern of the mathematician is to reach the conclusion, and his interest in the process is merely as a means to reach similar conclusions, whereas the logician desires merely to understand the process by which a result may be obtained. Peirce asserted that mathematics is a study of what is or is not logically possible and that the mathematician need not be concerned with what actually exists. Philosophy, on the other hand, discovers what it can from ordinary everyday experience.

Peirce characterized his work in the following words: "My philosophy may be described as the attempt of a physicist to make such conjecture as to the constitution of the universe as the methods of science may permit. . . . The best that can be done is to supply a hypothesis, not devoid of all likelihood, in the general line of growth of scientific ideas, and capable of being verified or refuted by future observers." Having postulated that every additional improvement of knowledge comes from an exercise of the powers of perception, Peirce held that the observation in a necessary inference is directed to a sort of diagram or image of the facts given in the premises. As in mathematics, it is possible to observe relations between parts of the diagram that were not noticed in its construction. Part of the business of logic is to construct such diagrams. In short, logical truth has the same source as mathematical truth, which is derived

PEIRCE PEIRCE

from the observation of diagrams. Mathematics uses the language of imagery to trace out results and the language of abstraction to make generalizations. It was Peirce's claim to have opened up the subject of abstraction, where Boole and De Morgan had concentrated on studies of deductive logic.

In 1870 Peirce greatly enlarged Boolean algebra by the introduction of a new kind of abstraction, the dyadic relation called "inclusion"--"the connecting link between the general idea of logical dependence and the idea of sequence of a quantity." The idea of quantity is important in that it is a linear arrangement whereby other linear arrangements (for example, cause and effect and reason and consequent) may be compared. The logic of relatives developed by Peirce treats of "systems" in which objects are brought together by any kind of relations, while ordinary logic deals with "classes" of objects brought together by the relation of similarity. General classes are composed of possibilities that the nominalist calls an abstraction. The influence of Peirce's work in dyadic relations may be seen in Schröder's Vorlesungen über die Algebra der Logik, and E. V. Huntington included Peirce's proof of a fundamental theorem in his "Sets of Independent Postulates for the Algebra of Logic" and in The Continuum referred to a statement that Peirce had published in the Monist. Peirce's contribution to the foundations of lattice theory is widely recognized.

In describing multitudes of systems within successive systems, Peirce reached a multitude so vast that the individuals lose their identity. The zero collection represents germinal possibility; the continuum is concrete-developed possibility; and "The whole universe of true and real possibilities forms a continuum upon which this universe of Actual Existence is a discontinuous mark like a point marked on a line."

The question of nominalism and realism became for Peirce the question of the reality of continua. Nature syllogizes, making inductions and abductions—as, for example, in evolution, which becomes "one vast succession of generalizations by which matter is becoming subjected to ever higher and higher laws." Laws of nature in the present form are products of an evolutionary process and logically require an explanation in such terms. In the light of the logic of relatives, Peirce maintained, the general is seen to be the continuous and coincides with that opinion the medieval Schoolmen called realism. Peirce's Scotistic stance—in opposition to Berkeley's nominalism caused him to attack the nominalistic positions of Mach, Pearson, and Poincaré. Peirce accused the positivists of confusing psychology with logic in mistaking sense impressions, which are psychological inferences, for logical data. Joseph Jastrow tells of being introduced by Peirce "to the possibility of an experimental study of a psychological problem," and they published a joint paper, "On Small Differences in Sensation," in the Memoirs of the National Academy of Sciences (1884).

William James was responsible for Peirce's worldwide reputation as the father of the philosophical doctrine that he originally called pragmatism, and later pragmaticism. Peirce's famous pragmatic maxim was enunciated in "How to Make Our Ideas Clear," which he wrote (in French) on shipboard before reaching Plymouth on the way to the Stuttgart meetings of the European Geodetic Association in 1877. The paper contains his statement of a laboratory procedure valid in the search for "truth"-"Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object." In a letter to his former student Christine Ladd-Franklin, Peirce emphasized that "the meaning of a concept . . . lies in the manner in which it could *conceivably* modify purposive action, and in this alone." Moreover "pragmatism is one of the results of my study of the formal laws of signs, a study guided by mathematics and by the familiar facts of everyday experience and by no other science whatever." John Dewey pointed out that reality, in Peirce's system, "means the object of those beliefs which have, after prolonged and cooperative inquiry, become stable, and 'truth,' the quality of these beliefs, is a logical consequence of this position." The maxim underlies Peirce's epistemology, wherein the first procedure is a guess or hypothesis (abductive inference) from which are set up subsidiary conclusions (deductive inference) that can be tested against experimental evidence (inductive inference).

The results of the inductive process are ratios and admit of a probability error, abnormal occurrences corresponding to a ratio of zero. This is valid for infinite classes, but for none larger than the denumeral. Consequently, induction must always admit the possibility of exception to the law, and absolute certainty is unobtainable. Every boundary of a figure that represents a possible experience ought therefore to be blurred, and herein lies the evidence for Peirce's claim to priority in the enunciation of a triadic logic.

Morris Cohen has characterized Peirce's thought as germinal in its initiation of new ideas and in its illumination of his own "groping for a systematic view of reason and nature." Peirce held that chance, law, and continuity are basic to the explanation of the universe. Chance accounts for the origin of fruitful ideas, and if these meet allied ideas in a mind prepared for them, a welding process takes place—a process

PEIRCE

called the law of association. Peirce considered this to be the one law of intellectual development.

In his educational philosophy Peirce said that the study of mathematics could develop the mind's powers of imagination, abstraction, and generalization. Generalization, "the spilling out of continuous systems of ideas," is the great aim of life. In the early 1890's he was convinced that modern geometry was a rich source of "forms of conception," and for that reason every educated man should have an acquaintance with projective geometry (to aid the power of generalization), topology (to fire the imagination), and the theory of numbers (to develop the power of exact reasoning). He kept these objectives in view in the mathematics textbooks that he wrote after his retirement from the Coast Survey; these works further reflect the influence of Arthur Cayley, A. F. Möbius, and C. F. Klein. Peirce's adoption of Cayley's mathematical "absolute" and his application of it to his metaphysical thought is especially revealing. "The Absolute in metaphysics fulfills the same function as the absolute in geometry. According as we suppose the infinitely distant beginning and end of the universe are distinct, identical, or nonexistent, we have three kinds of philosophy, hyperbolic, parabolic, or elliptic." Again "the first question to be asked about a continuous quantity is whether the two points of its absolute coincide." If not, are they in the real line of the scale? "The answers will have great bearing on philosophical and especially cosmogonical problems." For a time Peirce leaned to a Lobachevskian interpretation of the character of space.

Peirce once wrote to Paul Carus, editor of the Monist, "Few philosophers, if any, have gone to their work as well equipped as I, in the study of other systems and in the various branches of science." In 1876, for example, Peirce's thought on the "economy of research" was published in a Coast and Geodetic Survey report. It became a major consideration in his philosophy, for the art of discovery became for him a general problem in economics. It underlay his application of the pragmatic maxim and became an important objective in his approach to problems in. political economy, in which his admiration of Ricardo was reflected in his referring to "the peculiar reasoning of political economy" as "Ricardian inference." Peirce's application of the calculus approach of Cournot predated that of Jevons and brought him recognition (according to W. J. Baumol and S. W. Goldfeld) as a "precursor in mathematical economics."

Peirce also sought systems of logical methodology in the history of logic and of the sciences. He became known for his meticulous research in the scientific and logical writings of the ancients and the medieval Schoolmen, although he failed to complete the book on the history of science that he had contracted to write in 1898. For Peirce the history of science was an instance of how the law of growth applied to the human mind. He used his revised version of the Paris manuscript of Ptolemy's catalogue of stars in his astronomical studies, and he included it for modern usage in *Photometric Researches*. He drew upon Galileo—indeed, his abductive inference is identical twin to Galileo's il lume naturale—and found evidence of a "gigantic power of right reasoning" in Kepler's work on Mars.

Peirce spent the latter part of his life in comparative isolation with his second wife, Juliette Froissy, in the house they had built near Milford, Pennsylvania, in 1888. (His second marriage, in 1883, followed his divorce from Harriet Melusina Fay, whom he had married in 1862.) He wrote articles and book reviews for newspapers and journals, including the Monist. Open Court, and the Nation. As an editorial contributor to the new Century Dictionary, Peirce was responsible for the terms in logic, metaphysics, mathematics, mechanics, astronomy, and weights and measures; he also contributed to the Dictionary of Philosophy and Psychology. He translated foreign scientific papers for the Smithsonian publications, served privately as scientific consultant, and prepared numerous papers for the National Academy of Sciences, to which he was elected in 1877 and of which he was a member of the Standing Committee on Weights and Measures. (Earlier, in 1867, he had been elected to the American Academy of Arts and Sciences.) Peirce also lectured occasionally, notably at Harvard (where he spoke on the logic of science in 1865, on British logicians in 1869-1870, and on pragmatism in 1903) and at the Lowell Institute. None of his diverse activities was sufficient to relieve the abject poverty of his last years, however, and his very existence was made possible only by a fund created by a group of friends and admirers and administered by his lifelong friend William James.

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PEIRCE

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CAROLYN EISELE

### Appendix C

### THE HOME JOURNAL, WEDNESDAY, MAY 4, 1892

" Milford on the Delaware"

"With the exception of an occasional sporadic advertisement setting forth the merits of one of its village inns, the world at large has never been in touch with the picturesque and beautiful chain of mountain villages and hamlets centering about the country town of Milford, Pike county, Pa. Yet to the aesthetic traveller there is all and more in Milford and its surrounding drives and views—all and more of the same picturesque beauty that has made the Bernese Oberland and Switzerland world—famous.

Years ago--half a century perhaps--Milford's enchanting scenery, bracing air and soothing serenity of atmosphere were known to many of the old-time residents of the Metropolis, and "Dimmick's" was then a positively fashionable resort, albeit in those ante-war times, the prices for bed and board were so phenomenally cheap as to stagger belief that rooms and keep could be had for the price, even in those primitive days, when fashion's demands were not exacting. Milford however, like the "old guard," seems never to have surrendered.

Hotels have come and inns have gone, but "Dimmick's" goes on forever, as quaintly and, to its faithful habitues, as comfortably as of yore. Yes, Milford has the 'staying' quality and the independence which hold to it a constituency vigorous and perennial in spite of Saratoga, the Water Gap, Newport and even Tuxedo.

Milford offers something more than the gleam and the glitter of the modern watering-place. Nature never builded more wisely nor better than in the granite-bound roads spanning the grandest hills, gemmed with cascading waterfalls and vistas of river view too opulent for prosaic description.

From the bridge at Port Jervis, which forms the entrance to this fascinating region, spreads forth one continuous panorama of magnificent pictures, excelled in boldness, but not in beauty, nor in symmetry, by any other stretch of fifty miles travel in the mountain regions of the world; for the drive from the Port Jervis bridge to the famed Delaware Water Gap, is just within the fifty-mile limit. And wonderful as is the scenery at the 'Gap,' even this is, to the minds of many, transcended by the marvellous view afforded at Utter's Cliff, only a few minutes' drive from Milford village.

Bushkill Falls, too, on the way to the Gap, have a peculiar charm, and a more comfortable inn than that of Boniface Peters is not found in many a day's journey.

The evolution for which Milford seems to have waited has been attained at the 'Gap' and at Bushkill; that it will at no late date reach Milford itself seems even now a certainty. A New York capitalist, Mr. J. W. Pinchot, a native of Milford by the way, some years since conceived the brilliant idea of putting up a stone mansion as an investment, confident of the coming 'boom via the 'Gap' and Bushkill, which some day would alight and demand this handsome structure for public entertainment. But the 'boom' in its first sweep was somewhat too modest to o'erleap the Sawkill Falls, jutting over the Pinchot estate, and it struck first the more village-like edifice known as the 'Bellevue,' nearer the centre of the town. Here now a chef in full blast serves a table nearly equal to the standard of the 'Gap' hotels; and the prices and accommodations are more in accordance with the prevailing rates at other places.

Private enterprise has been lacking in the building of villas and cottages à la Tuxedo, but within the past year Mrs. Charles S. Peirce, wife of the eminent scientist, has brought her exquisite French taste and continental experience to the building of a picturesque villa.

While not in the least pretentious, this Arcadian Manse, placed as it is half way between the bridge and the village, forms as it were the prelude to the feast of grand river and mountain views which fill the eye and stimulate the mind. It is a quaint villa with inviting porches, saucy latticed windows, and an air of settled exclusiveness. It is unlike any of its far-off neighbors, many of them elegant and massive, built for utility, or, like the stone house by the Sawkill, to catch the pennies of the landlord of the future.

The townspeople are singularly individual and aggressively independent.

Schools and churches abound and are well kept up. The court house of Milford would do credit to some cities. The jail is a superb stone edifice. There has been lacking a public library or reading room for the villagers and summer guests, but a legacy of a library of books was a year ago bequeathed to the town, and a movement, led by Mrs. J. H. Van Etten, Mr. Julio Foster, Mrs. Lewis, formerly of Philadelphia, Mrs. W. K. Peters and others has been made to open a 'Milford Lyceum,' probably in the Finchot building, opposite the Crissman House, famous as a popular resort for bicyclists, and for the enterprise of its host. Summer cottages are few and difficult to obtain, but there are the 'Fanchere,' 'Poillon,' 'Diedrich,' 'Van Etten' and a few others available. The season opens very early in May for old time habitues and owners of cottages, and these linger under the fascinating spell of the wondrous scenery and the stimulating mountain air until the fall of the early snow, and sometimes later.

Now that Mr. George W. Childs of Philadelphia has joined hands with Dame Nature in making at 'Dingman's' a colossal pleasure-ground, free to all comers, it will indeed be difficult for Milford enthusiasts to leave this charmed spot at all, and special trains for sleighriding excursions may, perhaps, be in demand from New York in the winters to come.

The present need is for some enterprising society man, like Pierre Lorillard, and some experienced hotel man, like the host of the Brunswick, accustomed to meeting Metropolitan taste, to combine in developing other localities in Milford, as the Pierce estate, known as 'Arisbe,' has been developed; and the brilliant future always predicted for Milford, Pike county, Penn. will, at no distant day, be an accomplished fact.

CULPEPPER. "

Courtesy of Dr. M. H. Fisch, Peirce Edition Project, Indiana University, Purdue University, University Libraries, 420 Blake Street, Indianapolis, Indiana 46202

# Rooms in Ariste House

VE schelnes h hook:

## Light Rooms

W, windows, ce intry each left of andresodor as a mindow. f, fireplace. h, Steam heater E. Balcony, c, cupboards.

# upstairs

1. Gent's room. 4 W. f. R. E.

2. Lady's room Gw. f. h. B.

3. Silting room 2 w. f. h. E.

4 Madamés room 2 n. f.h.

5 Dessing room. Iw. h.

6 Monsieurs room 2w. f. L.

7 lipper corridor. In (also into 5)

8 Bath room. Iw. h.

9 Studio. 2w. f. h.

10. Maid's room Iv.

# Downstano

11. Alusic room. Gw. f. h.b.

12. Study 4-w (also into 15) f. h.

13. Garden soom. 4w. f. h. C.

14. Parler. (2 winto 15) f. h.

15. Gallery. Gw. 22.6.

16 Lover coorder Iw (also into 15) h.

M Dir ing room 2 m. f. R.

18 Priting. Iw. R. 8c.

10 Laundry. 2 w. b.
20 Kitchen Iw. Range. 6 e. b.
21 Bookstiller 3 w. b.
22 Kitchen France. Iw. h. 23 Cooks soon (windowsinto 22) .... M closets etc.

& Third story

1. Formant garrich

2. Middle garret Secred Torry

3. Laisis elisabis. h.

4. Guesto Jobby

5. Reght stilling from closel 13. h

6. Left sitting room dorst !s. h.

7. Dressing room eieret near door 2s.h.

8. Dressing som closet near mindowils. h

9. Monsiemis room cleret 1s.h.

10. Upperclosel near stano Gs

11 Eft back corridor closet 65

12 Rejer cooridor closet 65

13 Left buck gerroch

14 Right back garret

15 Monsiem's lagring closet 48 hanging closet h

17 Madamés Caying closet Its 18 a hanging closet h

19 Maid's formand closes

20 n Gael closet Ss. 21 Sterricase closet 2s. L.

22 Loundy closeh = 145 23 British closet Bs.

24 Cooks Origin Hand closet 2s. h

25 Civilo Left home closen 2.5 h

26 Kart cellar

27 Coal cellar

28 Funnace cellar 29 Foonand cellar

30 l'ine cellar 3s.

### Appendix D

Pike County Court House Records, Milford, Pa.

- Grantee U. S. Corps of Engineers

  Grantor Estate of Marion R. Phillips

  Recorded 3/3/72, Deed Book 261, p.815

  Tract #12400-1, 9.61 Acres.

  (See U. S. Corps of Engineers File #1502.13, Appendix M.)
- Grantee Robert C. Phillips

  Grantor Colin S. Black, Administrator Juliette Pierce (sic)

  Recorded Jan. 17, 1936, Deed Book 89, p.536, Dec. 1935

  Westfall Township

  (Grantee's Index 1885-1939, p.307)
- 1888 1. Grantee Peirce, Juliet
  Grantor Elanor Quick Etal.
  Recorded May 10, 1888, Deed Book 45, Page 92.
  Westfall Township
  - 2. Grantee Peirce, Juliet
    Grantor John T. Quick by Widow Etal.
    Recorded May 10, 1888, Deed Book 45, Page 92
    Westfall Township
  - 3. Grantee Peirce, Juliet

    Grantor Maria Quick Widow. Etal

    Recorded May 10, 1888, Deed Book 45, Page 92

    Westfall Township

    (Grantee's Index 1814-1895)

1888 May 10 - (<u>Deed Book 45</u> page 92)

. . .

Eleanor Quick (single woman) daughter of

John T. Quick - late of Westfall Township.

Maria Quick, widow of John T. Quick

t.o

Juliet Peirce, wife of Charles S. Peirce consideration \$1000.-...

following property Westfall Twp., Pike Co...

several adjoining pieces of land, 50 Acres,
bounded by Delaware River, lands owned by John

Quin, Mrs. Mary Vannery and James Campbell

and "including within the boundaries thereof

the 'homestead property' of the said late John

T. Quick" also "tract of land surveyed in

the warrantee name of Peter Quick and

numbered... No 117 the same being commonly

known as the 'Quick Saw-Mill property'...

Grantee John T. Quick

Grantor John M. Quick

Date of Instrument April 9, 1881, Recorded May 15, 1890

Deed Book 46, p.589, Westfall Township

Grantee John T. Quick

Grantor Parmelia A. Quick (wife of John M. Quick) and Heirs

Date of Instrument April 9, 1881, Recorded May 15, 1890

Deed Book 46, p. 589, Westfall Township

(Grantee Book 1814-1895)

- December (Deed Book 46, p.589)

  \$75.- consideration ...

  John T. Quick Grantee ...

  John M. Quick Grantor ...

  8 acres fully described in Deed Book 34, p.554 ...

  "and title in personal property of any and all kinds. farming untensils household Furniture horse cows etc etc ... together with all and singular the tenements..."
- December 13 (Deed Book 34, p.554)

  Daniel Quick Grantor to

  Parmelia A.Quick the wife of John M. Quick

  "the house now occupied by her and John M. Quick

  with the following piece of land ... 8 scres ...

  commencing corner near maple trees above the

  house 38 rods down to line of Buckwheat field

  to a stump and stones. Thence north 17 rods

  across to line 21 rods up the north line to a

  stone corner near Hazeltons path. Thence North

  to Kadles line thence back to beginning."
- Grantee Daniel Quick

  Grantor Maurice M. Schultz

  Date of Instrument May 27, 1854

  Deed Book 20, p.351, Westfall Township

  (Grantee Book 1814-1895)

1854 May 27 (Deed Book 20, p.351)

Maurice M. Schultz Grantor

Daniel Quick Grantee

402 Acres

Agreement: Daniel Quick agreed to

pay over a number of years to

Schultz who lived in New York State.

## Appendix E

Background of Arisbe: a Brief History1

[by Preston Tottle for the Charles S. Peirce Foundation, 1975]

Charles and Juliette Peirce arrived in Milford in April, 1887,

and settled into the Hotel Fauchere in rooms 1 and 3 while deciding

where to live. Milford had a small French community, which was congenial

to Mrs. Peirce, and in the Pichots they had close friends.

They decided on the 'Quick homestead,' the present Arisbe, which in those days had a mailing address of Quicktown. This property had become available upon the death of John T. Quick, and it had the practical attraction that it included six land grant tracts several miles to the west totaling about 1,850 acres of woodland with, in Peirce's words, "a good deal of timber, well watered, two bluestone quarries not yet opened, a large clearing, two log houses, plenty of deer and small game."

On 10 May 1888, the Peirces concluded three agreements with Fileanor and Maria Quick, sister and widow of the late John T. Quick. In a deed they gained possession of the Quick farm, which included the nucleus of the present house and various out-buildings, together with an adjacent tract of about 80 acres known as the 'Quick Sawmill property.' In a mortgage to the two women they took security on the 1,850 acres of wood-land. And in a lease agreement they rented Maria the 50 acres of farmland, the farm buildings, and the house-except for three rooms, one on the first floor and two on the second, which they reserved for themselves. This lease agreement was to hold for the life of Mrs. Quick, at a rent of ten dollars a year.

See Appendix, this Section: A map, about 1900, showing the Peirce holdings; a letter to his brother James Mills describing the house in 1889; a letter to F. C. Russell describing the house after the second stage of construction, 1892; a copy of the leaflet describing "Arisbe Villa," about 1900; and transcript of a contract for construction of the third stems 1900.

After the death of M~s. Quick about a year later the Peirces took over the house and farm. The mortgage on the land grant block, meanwhile, fell into default, a debt of \$1,600, and the Peirces foreclosed. At a sheriff's sale of the property, 20 February 1891, Juliette Peirce made the highest bid of \$500 and, in a deed entered 16 March 1891, she became the owner. (Mrs. Peirce was listed as the principal in nearly all of the Peirce property transactions.) With a small parcel of land adjoining the farm, purchased from their neighbor, Maurice Quinn, for \$75 on 22 November 1839, the Peirce property holdings were complete.

"My home consists of a farm of about 60 acres of cultivated land,"

Peirce wrote in February 1892, "with a river front of a third of a mile

and a road front of near a quarter of a mile. . . . also over 100 acres

for firewood with a trout brook, saw mill, large ice-house, etc." He then

goes on to describe the block of woodland, saying he would like to sell it,

a hint of the complex of mortgages and foreclosures which lay ahead.

What is of greater significance is that Charles S. Peirce, at the age of 52, was now entering upon the life of a farmer, with animals to care for, fields to plough, plant and reap, fences and water sources to tend, as well as the incessant round of 'chores,' the "menial offices of every day in a household, especially a primitive household—the hewing of wood and the drawing of water and the like."

On the other hand, Peirce could now settle in to the charms and gratifications of the Delaware Valley environment. His statements about himself reflect a whimsical self-congratulation, as when he refers to

Letter to Henry Cabot Lodge (2/8/92). It is interesting to consider the river frontage. The channel is today much farther to the east and one might well inquire when the change occurred.

2In a letter to Lady Welby (12/23/08), explaining that "for the past week all my time has been taken up with what we Yankees. . . call 'chores.'"

Peirce was then 69, "working desperately to get written before I die a book on Logic. . ."

himself as a "bucolic logician," a recluse for logic's Sake, or when he identifies himself for the great mathematician and logician Georg Cantor: "I am nothing but a farmer living in the wildest part of the Eastern states; although our National Academy of Sciences has most indulgently honored me with one of its chairs." 1

The year 1891 was a transitional date. It was the year Peirce and his wife took full possession of the Quick property. It was the year he withdrew from employment with the U. S. Coast and Geodetic Survey and terminated his active scientific career. From then on, as far as circumstances would allow, Peirce devoted all his time and energy to his developments of philosophy, logic, mathematics, and semiotics. In the splendid isolation of Arisbe, working incessantly, often all night long, Peirce, with prodigious productivity, invested the last twenty—three years of his life. "Tragically enough," Philip P. Wiener observes, "he was to become a solitary thinker exploring ideas beyond the range of most of his contemporaries. 62

Also at around this date the Peirces seem to have abandoned the name Quicktown, or thought of doing so, in favor of a name of dearer meaning to themselves—Arisbe. At first Peirce had been resigned. 'Mrs. Pinchot wants us to change the name Quicktown, but I don't know that I agree with her," he wrote to his brother, James Mills Peirce:

It is the name we found & 'Tom Quick' is a rather romantic figure in the history of the valley. It is true that all of the Quicks of this day are the most unspeakable rogues, as he was too, I don't doubt. But I don't see that that circumstance is any reason for getting up a spick & span new name which would signify nothing & would not be recognized by the country people.3

<sup>1</sup> In draft of a letter to Cantor (12/23/1900).

<sup>2</sup> Introduction to his <u>Values in a Universe of Chance: Selected Writings</u> of Charles S. Peirce. (Garden City, New York: Doubleday Anchor Books, 1958), p. xi.

<sup>3</sup>CSP to JMP, letter dated Quicktown 11/29/1888.

Nevertheless, by 1892 or '93 the Peirces had freed themselves of the constant association with this legendary Indian slayer by adopting a 'spick & span new name.' It was a name that had been dear to Peirce and his classmates since the days they had read the Illiad with Felton at Harvard.

> Axylos, son of Tauthras, from well-built Arisbe, a man of substance and loved by all men, for his home was on the high-road there, and welcomed all who came by. 1

In a note on this passage Felton had identified Axylos as the genius of hospitality. The name was dear to Juliette because Arisbe was the name of her favorite butterfly. And it was a name even dearer to Charles because of its associations with Epicurus, Aristotle, and the early Greek cosmologists, those who like himself had made a "guess at the riddle," had sought to identify the First Principle of things. As Professor Fisch has revealed in a remarkable paper, Peirce, "who lived with the Greeks for the last third of his life," identified Arisbe with the satisfactory conclusion to a long philosophical journey .-- his determination of the final version of his categories (Firstness, Secondness, Thirdness -- monadic, dyadic, triadic relations), after which the underlying system he had been struggling to discover lay revealed and the diverse parts and pieces moved into unity.

The original Arisbe, near the eastern shore of the Hellespont, was a precinct of Greek philosophy. It was a colony of Miletus, that most powerful Greek city in Asia Minor, which was the home of Thales, Anaximander, and Anaximenes: the physiologoi, the founders of the Milesian school of natural philosophy -- those who taught the Greeks to think and, through the Greeks, ourselves. Fifteen miles northeast of Arisbe was Lampsachus. There

132

<sup>1</sup> Book II. 835-839. 2 Max H. Fisch, "Peirce's Arisbe: the Greek Influence in his Later Philosophy," Transactions of the Charles S. Peirce Society, VII, No. 4 (Fall 1971), pp. 18 210.

Epicurus (the recent study of whom had set Peirce on the path to his concluding system) had taught for several years and had attracted his most distinguished followers, Metrodorus and Colotes. Thirty miles to the south of Arisbe was Scepsis, where Aristotle's manuscripts had lain hidden in a cellar to prevent their seizure by the book-collecting kings of Pergamum, as Plutarch says, and from whence they were sold about 100 B. C. to Apellicon, a Peripatetic, who edited them badly.

In naming their homestead Arisbe, the Peirces not only reconvened a classical landscape and located their new home in philosophic space; they also installed the genius of hospitality.

## The House in Peirce's Time, 1888-1914

The Peirce house is of special interest to the visitor today because so much of Peirce is built into it. The whole building is an evolvement of Peirce's designs, of which there are numbers of drawings, sketches, and plans in his own hand to display. More study is required before the architectural development can be described precisely, but there seem to have been three construct ional stages: a first when they took full possession of the property in 1889; a second in 1891-92; and a third in 1909-10.

In the first stage the Quick house was enlarged to an L-shaped dwelling, one room deep, of two stories and about eleven rooms. Peirce described this to his brother, James Mills, in great detail (see Appendix, letter 30 September 1889). "Our house is very comfortable, very pretty," Peirce writes. "It is not in the least Queen Anne or any other style. It is our own original style." He boasts of a "capital cellar under the whole house, as dry as a bone, furnace etc.," then speaks proudly of the construction, especially of the flooring, whi a visitor finds there today:

I must mention that the wood of which the house is built is very choice. Upstairs and in the kitchen, the floors are of Georgia pine hard-finished, and downstairs they are of white ash and waxed. All the locks, knobs and other hardware is artistic. There is a fireplace in every room, for wood is as cheap as coal.

In the second constructional stage the L has been filled in and the number of rooms has been doubled, to twenty-one. The Peirces have built porches and balconies and have installed steam heat. The width of the front has been extended 12 feet and the ends given the tower-like shape they now have. In a letter to F. C. Russell, 17 September 1892 (see Appendix), Peirce describes the house in detail, giving dimensions for each room. The floor plan is nearly identical with that of the first two stories today.

"This valley of the Delaware where I live will compare with any country I have seen -- and I have seen many -- for picturesque ness, Peirce writes. "It is a most lovely spot, and never do I look out the window without refreshment." What is more, as Peirce accounts in this letter, the second enlargement of the house was in line with his plan to "set agoing an institution for the pursuit of pure science and philosophy which shall be self-supporting. Meanwhile, he could fall back on its use as a country retreat for paying guests: "Now I propose to put up three pretty cottages of about four rooms each, and make the house a sort of Casino for fashionable people of 'cultural' tendencies, to spend the summer, have a good time, and take a mild dose of philosophy. To augment his income and help launch the institution, Peirce planned to build a small gas refining plant. "I am a chemist by profession," he writes, and on the land where the two bluestone quarries were located "I intend . . . to start a little works for a process of my own invention" -- the production of acetylene gas for domestic and industr uses.

The gas works were never built. The "over two square miles of land" which Peirce had counted on to exploit was sacrificed piece by piece through loans and defaulted mortgages. There remained the dream of an Academy and the Casino alternative. On 9 April 1895, Peirce wrote to David Coit Gilman, President of Johns Hopkins, soliciting summer pupils: "It has always been my desire to establish a summer school of philosophical studies here. . . . If the Johns Hopkins would aid us to make our philosophical academy, we might arrange to let the University have the place when we are done with it. . . " He made similar approaches to Harvard, but nothing came of them. A few students did take residence in Arisbe for short periods, but their names are lost.

There was always the Casino alternative. Around 1900 the Peirces were promoting "Arisbe Villa" as a country resort "open all the year" (see Appendix). "Rooms with board \$10.00 and \$15.00," the leaflet read. "CUISINE SOIGNEE; Private dining-room if desired. Charming parlors, verandahs, library (both light and serious, in English, French, etc.)" It also announced lots for sale; cottages designed, built, and decorated "most reasonably."

A few guests came at various times. The plan did not prosper. But something of Peirce's own pride and delight in Arisbe brightens this little leaflet, which he himself no doubt composed, though the project was probably Juliette's.

House two miles from Village high above Delaware River with plenty of shade, sixty acres of ground about it, with long river front. High hills with glorious landscapes in full view.

Boats free; croquet, golf, lawn tennis. Nearby woods, private glen belonging to estate with trout brook, good shooting.

Capital roads; first-rate bicycling for forty miles and more. The scenery has a rare and peculiar charm; the drives are delightful and inexhaustible. Enchanting waterfalls and nooks.

In 1909, when Charles was 70, Juliette was ill, and the house, much run-down, now seemed a burden to them, the Peirces undertook their third and last program of construction. "We must sell this house which is way to big for her," Peirce wrote to Lady Welby (24 February 1909). "To accomplish that the outside of it must be made attractive. For now it looks so forlorn that nobody can be persuaded that the inside is worth looking at . . . All these things have compelled me to drop logic for the last days completely."

In July Peirce drew up a contract for a third story, "constructed as a balloon-framed structure," and a new roof(see Appendix). Why a third story? Probably the Peirces believed that this extensive addition, which doubles the volume of the house and makes it vastly more imposing, would qualify it more readily to buyers as a summer hotel. It was intended as a ballroom. But just as easily, if the house were ever to become an academy, it could become a high-vista, peripatetic lecture hall--or even a celebratory honors room:

This period of construction and repair dragged on for months, and became onerous. In October Peirce wrote to Lady Welby: ". . . there are extensive repairs that <u>must</u> be made to enable us to live through next winter & I must naturally have to get plans made, revised, redrawn, considered, re-redrawn, and though my wife attends to all the details & the ideas are wholly hers, still it prevents very largely the continuity of thought requisite for the kind of work which is more particularly mine."

Two years later, though they had been advertising, the house had not sold. The interior of the third floor had long before been left unfinished. They lived in acute poverty. Peirce was ill with cancer, his wife was in poor health and frequently bedridden, and since they

could not afford a servant, "The only thing I can do," he wrote, "is to spend my energy in domestic details. In my wife's state of health

. . . it becomes my first desire, as well as my first duty, to work at nothing which does not ameliorate her condition." Then he adds rue-fully, "It is obvious, for example, that it was a wicked thing for me to work two months on the Hibbert Journal article for fifty dollars, since life could not be sustained at that rate."

### The House, 1914 - 1972

After his death, Mrs. Peirce sold Peirce's papers and most of his professional books to Harvard University. She proposed that Harvard also purchase the house, but there was no interest.

During the twenty years she lived on there alone she added ten to twenty more rooms at the back, probably to increase its value to some prospective buyer as a summer hotel. Still, she may had had more obscure reasons. Some will have it that she received a small stipend and would use this to add a room each year. Whatever the case, by the time of her death in 1934 this auxiliary structure extended far enough back to cover the site of the present garage.

After her death the house lay vacant and unattended for two years.

It was extensively vandalized. Plumbing, fireplace tiles, and unaccountable amounts of household furnishings were taken.

Then, in 1936, the property was put up for auction at a Sheriff's sale. Robert Phillips, a lumber dealer in Milford, then living in Port Jervis, was driving to work, saw a crowd of people and stopped to see what was going on, then waited to watch the bidding. At some point, in spite of his resolve not

<sup>1</sup> To Lady Welby, 20 May 1911.

to do so, Phillips joined in and in a few minutes found himself the owner of the house and 142 acres of land for \$3,600.

Robert Phillips, Jr., of Milford, who was nine years old at the time, remembers in detail the condition of the house and the program of rehabilitation his father and mother undertook. First, before the family moved in, Mr. Phillips tore down the accumulation of rooms that Juliette had built on at the back. Next, the house was "absolutely loaded" with books, papers, furniture, clothing, the accumulation of forty-six years of Peirce occupancy—all of which had been pawed through and scattered by vandals. Mr. Phillips tried to interest dealers and others, tried in fact to sort out the debris, but no one was interested. So on a day that has been noted by scholars as a holocaust (quite without foundation, it turned out, sine Peirce's papers, correspondence, and most of his professional books had been removed to Harvard years before), they lugged it all into the front yard and burned it. There was just no other way to clear out the house and cormence repairs before moving into it.

Mr. Phillips installed a new plumbing system and built a septic tank.

He rewired the house, laid on a new roof, repaired windows, replaced some of the siding. He installed the present steam-heating system, retaining several radiators from the old one. There was a fireplace in every room but one, including the famous four-sided fireplace in Peirce's study, which they removed In a few places the plaster had to be replaced, but in most rooms spackling or patching was sufficient. Then, around 1938, Mr. Phillips had the exterior wall and the third story floor insulated with asbestos fibrefil. There was never an serious thought given to completing the third story because there was no need for the space, since there were only five in the family.

Mr. Phillips subdivided much of the property and built houses on it. For many years he reserved a large plot across the road on which the family kept horses and raised cattle. The present barn began as a five-stall horse barn, and the frames and pegs are still there for five saddles and five bridles. Then, some time in the late 1940's, Mr. Phillips decided to convert this structure into a house, a project which reached the present outlines before he abandoned it. He also sank a new well, which proved to be a copious supplier, capable of furnishing water to a number of other properties.

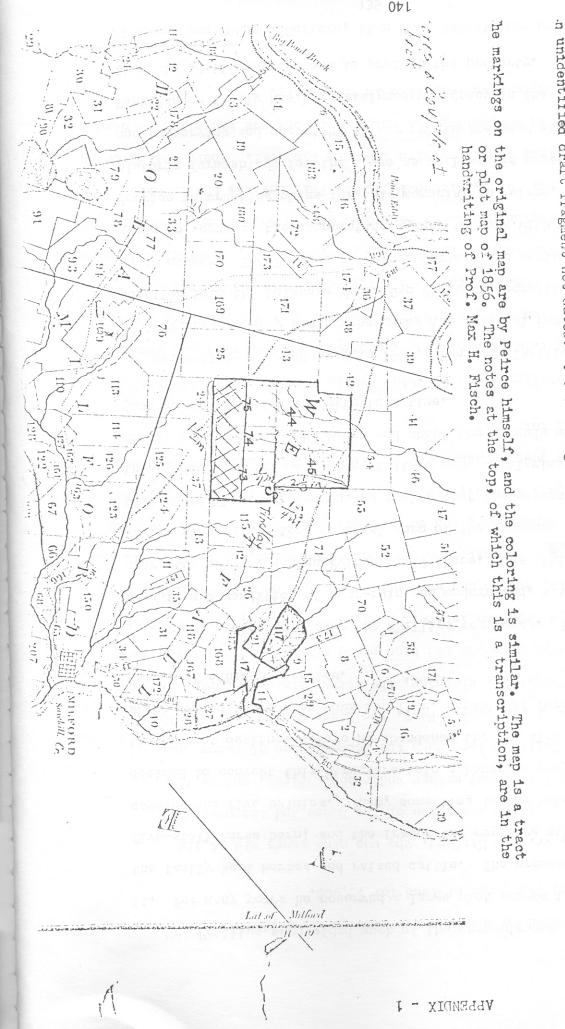
Arisbe prospered during the Phillips occupancy. The house was brought back from a condition of near-ruin and modernized, without prejudice to its character or design when Peirce lived there. Mrs. Phillips was always proud of the place. She took especial care of the grounds, planting flower beds that would bloom all season and seeing that the cedars and shrubs were kept in attractive trim. And when visitors made a pilgrimage to Arisbe, they were always shown through the house and about the grounds with great hospitality—just as was the case in Juliette's time.

Mr. Phillips passed away in 1969, then Mrs. Phillips in 1971. In March of 1972 the property was purchased by the National Park Service for incorporation into the Delaware Water Gap National Recreation Area as an historic house museum. The Charles S. Peirce Society was invited as "the logical group to serve as the cooperating agency to work with the National Fark Service in creating plans for this memorial to Peirce, reassembling the historic furnishings for the house as well as his papers and instruments, and preserving and operating it for public and academic purposes." A Park Ranger family has been assigned residency in the house since that time, to admit visitors and to protect the property.

<sup>1</sup>Letter from Peter DeGelleke, then Park Superintendent, to the Peirce

in a letter from Peirce to George A. Plimpton, 18 March 1900: "The map will show that No. 75 & 74 lot to the RR. Lot 44 is about 14 miles from the Erie RR. downhill by a comfortable grade from the have an important watershed and lots 44 and part of 45 are most beautifully watered. lot No. 75 and nearly touches our pert of No. 44.0 The Pond Eddy Road down to Arisbe is most excellent. This runs through

5 a letter from Peirce to Henry Cabot Lodge, 8 February 1892; "My home consists of a farm of 60 acres unidentified draft fragment not dated: ". . . a large tract of 1150 acres a couple of miles back." quarter of a mile. . . . also over 100 acres for firewood with a trout brook, saw mill, of cultivated land with a river front of a third of a mile and a road front of near a of modland, with a good deal of timber, well watered, two bluestone quarries not yet large ice-house, etc. But what I would rather do is to sell a nice square 1850 acres opened, a large clearing, two log houses, plenty of deer and small game."



DESCRIPTION OF THE CHARLES S. PEIRCE HOUSE AS OF SEPTEMBER 30, 1889 (BY PEIRCE IN A LETTER TO HIS OLDER BROTHER JAMES MILLS PEIRCE)

Our house is very comfortable, very pretty. It is not in the least in the Queen Anne nor any other style. It is our own original style. The side towards the road, which is not very far distant, presents four windows on each of the two stories, and a veranda for the lower story. This part is one room deep and has two rooms in each story. It is gabled at the sides or ends, and at one end has a two-story bay window, and at the other end a two-story semi-circular lattice-work, for vines, and for a balcony above.

Back of this part of the house is another part of the same breadth, except for a circumstance which I am about to mention, and equally one-room deep. In this part, on the same side as the bay window, is the front door, the approach to which is through a garden of most lovely flowers. The front door is ten feet wide, opening in four flaps with glass in the upper halves, and opening upon a porch. The square room into which you enter we call the garden room: it has a Charles II mantle, painted in three colors, and opposite the front door is an arched door leading into the dining room. This dining room has a fireplace some five feet wide and four high with a crane (the fireplace being built of stone) and a superb old mantlepiece. Opposite the arched door, is a glass door and a French window leading out into the conservatory, which is seven feet wide. The outside glasses being taken off of this in summer, leaves it a kind of porch; so that the house is that much less wide in summer.

Above the garden room is Juliette's sitting-room. This upper story in this part of the house has a French roof on the sides. The steep slope is straight on this side of the house and curved on'the other. The sitting-room has a long French window five feet wide opening cut upon a balcony over the front door and porch; and from this is the most enchanting view of the hills and the river, with the greatest profusion of flowers in the garden below. I should say that this story in this part of the house is quite lofty. Back of the sitting-room is Juliette's bedroom with two recessed French windows with deep window-seats.

Then we have in a part of the house I have not described a good bathroom (the water from our own spring is delicious), lots of closets, pantry,
kitchen with a first-class range. laundry with set tubs, a capital cellar
under the whole house, as dry as a bone, furnace &c.

We have besides another two-story dwelling-house (we are going to build another) and two barns, an enormous ice-house, sawmill. &c.

I must mention that the wood of which the house is built is very choice. Upstairs and in the kitchen, the floors are of Georgia pine hard-finished, and downstairs they are of white ash and waxed. All the locks, knobs and other hardware is artistic. There is a fireplace in every room, for wood is as cheap a fuel as coal.

Our nearest neighbors except farmers are at Milford,  $2\frac{1}{2}$  miles away, and the Pinchots are a mile farther. The railway is  $4\frac{1}{2}$  miles away; but we think nothing of these distances. We have two splendid farm-horses and a fine trotter. I am confident that we shall eventually make money from this place....

This living in the country is highly conducive to reading long works in many volumes. I have not a rage for reading: indeed, I think an impulse to study and an impulse to read are rather antagonistic; but I get through a good many books here. I find nothing wears better than Sainte-Beuve.

PEIRCE'S DESCRIPTION OF "ARISBE" IN A LETTER TO F. C. RUSSELL (SEPTEMBER 17, 1892)

This valley of the Delaware where I live will compare with any country I have seen, -- and I have seen many, -- for picturesqueness. Moreover, the roads are set down by the bicyclist's guide-books as the best in the land. Moreover, there are many French settlers here, & especially chefs, and they have disseminated good cooking wonderfully. My wife and I own over two square miles in one piece nearly square; and I think that will be of value eventually. Outside of that we have two places. One is the small farm where we live, stretching a third of a mile along the river and reaching a quarter of a mile back. It is a most lovely spot, and never do I look out the window without refreshment. The house is a 2 story frame house of my design. The width of the larger part of it is 36 feet (in front 48 feet, and in the ell only 27 feet, in part 38 feet). The total depth is 76 feet or with the verandah 84 feet, namely 16 of greatest width, 38 of 36 and 38 feet and 22 of 27 feet. It is very pretty and very original, but the furthest possible from pretentiousness. The floors are mainly white ash waxed. The rest Georgia pine. There are eleven open fireplaces, some large; one you can stand up in. There is also steam heat throughout the house. A good cellar under the whole. Running water and all conveniences. The rooms are as follows:--

You enter at a <u>conservatory</u> or glass-gallery,  $17\frac{1}{2}$  feet x 7 ft. There you have three doors, at Right (A), in front (B), to left (C). Door A leads into my study 16 x 26 feet, 3 windows, large open fireplace and an outer door. From the study you pass into the music-room 16 x 20 feet, open fireplace, long windows opening upon verandah 8 ft x 34 ft. (I do not mention steam heat except where it is <u>not</u>.)

Door B goes into parlor  $17\frac{1}{2} \times 15$  feet, where is the big fireplace. This open by wide doors into the Garden Room  $17\frac{1}{2} \times 12\frac{1}{2}$  feet with large fireplace. Two doors into music room and 9 feet glass door into flower garden. It opens by folding doors into Dining Room 19 x  $16\frac{1}{2}$  feet with large fireplace & broad windows.

Door C goes into corridor (with large closet for coats etc.) leading into dining room and also having the staircase and leading into servants dining room. The latter is  $10\frac{1}{2} \times 9\frac{1}{2}$  feet and has an outside door. It leads into the cook's room which is  $9 \times 11$  feet, has 2 closets. Has no steam heat.

From servants dining room you pass into kitchen  $11 \times 15\frac{1}{2}$  feet with outside door, range, sink, closets, and cellar door.

From kitchen you pass into larder  $7\frac{1}{2} \times 14$  feet, with inner closet etc. and 3 windows. No steam heat.

From kitchen you pass into laundry  $10\frac{1}{2}$  x 15 feet with set tubs, large closet for preserves etc. but no steam heat.

There are two large covered porches about kitchen.

The pantry between dining room and kitchen is  $5\frac{1}{2} \times 14$  feet and has two rows cupboards along one side, porcelain lined sink with hot & cold water etc. There is steam heat in pantry.

Going upstairs you find yourself in a corridor but the staircase turns away from the length of it toward the sitting room door at the end of it. The corridor goes straight back to the end of the house. This corridor has no steam heat upstairs, that below being quite sufficient.

Sitting room is 15 x 17 feet, fireplace, balcony with beautiful view of river, 2 closets. From it you pass forward to a lobby with two doors and no steam heat. One leads into a chamber over music-room, with fireplace and opening upon upper verandah, & closet. The other into chamber over study with fireplace.

From sitting room you pass into Mrs. Peirce's room 17 x 18 feet with window-seats extra space. Fireplace. From there into dressing room with 2 closets.

Thence into my room with fireplace,  $10\frac{1}{2} \times 22$  feet and closet. I go out of my room into corridor and opposite is a room we call the studio  $12\frac{1}{2} \times 19$  feet with fireplace (large).

The corridor has 3 linen closets, and two large store closets or rooms. There is also a bath room 6 x 12 feet with four closets. And a maid's room 8 x 10 feet with 2 closets, and no steam heat.

Besides this, there is a cottage near by, very pretty with two rooms. We use it for servants. There are two barns, and various little buildings.

The 60 acres of land are worth \$6000, the house, insured for \$4500, is worth \$6000, the other buildings \$1000. My library, insured for \$2500, is worth  $\frac{\omega}{\varpi}$ . Say in all \$15000. Now I propose to put up three pretty cottages of about 4 rooms each, and make the house a sort of Casino for fashionable people of "cultural" tendencies, to spend the summer, have a good time, and take a mild dose of philosophy. There is  $no_A^{\prime}$  no railway through the valley. When it comes, as it will in a few years, values will be greatly enhanced, and my place, with the business I shall have built up, will be worth considerable. My ultimate aim is to set agoing an institution for the pursuit of pure science & philosophy which shall be self-supporting....

I am a chemist by profession, and when I get this working right, I intend on another piece of land I have here to start a little works for a process of my invention....

ARISBE VILLA.

MILLFORD. PA.

A PICTURESQUE AND REALLY COMFORTABLE COUNTRY RESORT.

OPEN ALL THE YEAR.

Rooms with board \$10.00 and \$15.00; and beautiful suites. Special Rates for the Season on early application only. CUISINE SOIGNEE; Private dining-room if desired. Charming parland serious, in English, French, etc., All the sleeping-rooms are comparatively large and luxurious, with cuperior beds. Steam heat and large open fire-places throughout. Delicious water from a spring above every habbusite from a spring above every habbusitation, running het and cold. Every convenience. Air pure and free from malariag Sunitary drainage.

House two miles from Village high above the Delaware River with plenty

of shade, sixty acres of ground about it, with long river front. High hills with glorious landscapes in full view.

Boats free; eroquet, golf; lawn tennis. Nearby woods, private glen belonging to the estate with a trout brook, good shooting.

Capital roads; first-rate bicycling for forty miles and more. The scenory has a rare and peculiar charm;
the drives are delightful and inexhaustible. Enchanting waterfalls and

Lots for sale. Cottages designed, built, artistically decorated, most reasonably.

Several good trains daily two-and-a-half hours, Eric Road. Place four-and-a-half miles from Railway Station. Stage or private conveyance. Telephone, Stable Accommodation,

٥.

Address:

ARISBE VILLA,

Milford, Pa.

THE PEIRCE HOUSE AS HE DESCRIBED IT IN JULY 1909 IN A DRAFT CONTRACT FOR A THIRD STOREY AND A NEW ROOF

That South East side of the house of residence of the party of the Second Part [Mrs. Juliette Peirce] that faces the public road shall be called the front and the South West side the Right side and the North East side the Left side. That part of said house that is nearest to the public road and that is covered with a shingled roof with a gable at the Left end and a semicylindrical portion at the Right end shall be called the First Division; and the part of the house that is attached to the First Division on the North West side of the same and is chiefly covered by a tin roof shall herein be called the Second Division; and the part of the same house that is attached to the North West side of the Second Division and is covered with a hip roof shall be called the Third Division.

The Party of the First Part shall without needless delay build a Third Storey over the whole of the First Division including the semicylindrical portion but excluding the Bay Window on the left Side. This third storey shall be constructed as a balloon-framed structure with 2"x4" inch studding eight feet high, and it shall be roofed as the storey below or rather as the First Division is at present roofed; that is to say with a gable roof having a fall of two feet vertical for every three feet of horizontal extension in the direction of steepest fall, that is, parallel to the Right and Left sides of the house. But the semicylindrical end shall be roofed as it is at present with a conical roof continuous with the gabled part.

# Appendix H 1907 Dec Mrs. Peirce's Appendix H

20-FOOT VERANDAH.

[Hand of Charles S. Peirce, Peirce Papers, Houghton Library]

At the time when Mr. Peirce drew up the bill of lumber for this structure, he understood that it was to be used about as rerandahs usually are, and did not realize its great importance, nor the heavy loads which it might have to support, nor that is the imperative need of its being halfas longe again as an ordinary verandah nor the particular necessity of its being imparred by heavy walking or hopping, nor the desirability of its being as dry as possible. Tunnediately upon having his mind opened to Mrs. Peirce's idea of the purposes it was before, he set about a careful study of how it should be constructed. This is his apology for entirely changing the specifications, Really, a person who knows so little about building as Mr. Peirce, ought not to attack such a problem, unless he should be gifted with for greater talent that Mr. Veirce can boast, or unless he, has the advantage of advice from a competent is exchitect or fulder in some seasons

The verandah is to be the principal dining room, for a company which may with the waiters, et amount to a hundred persons; and the feareniture will be heavy and closely set. In therefore appears that the floor-beams of the lower floor beauth of the formald not be further apart than 18 inches between their contrepe D and to avoid sent borrant jouring, which might

cased a britishing glass to slop over and be otherwise un pleasant, perhaps 12 inches between the centres of the floorbeams would be none too much. However, if this be decided upon the change of the specifications will be simple to make. In order to avoid mason's work, and not to have a damp cavity under the lower floor, and for other reasons, Mrs. Feire prefer to rest the structure upon chestnut posts, to which the only objection Mr. Peire is awore of , is that tong before the verandah is old, some of the posts would have be replaced by new ones. In such an event it would be well if there were an abundant number of the posts. Say a pair of posts for each floor-beam, with no sill. Let obvious, a sill will be more needed for a structure resting on posts the for one that rests on solid and deep masenry. Aming others reasons, frost might throw a post out of plumb and their cause an unevenuess of the floor. On the whole, a sill some to recommends itself to Mr. Perice's apprehension, with a pair of posts for every second floor beam.

Mrs. Peirce may decide that, in order to avoid damp in the spring and autumn, she will have the lower floor double with glazed paper between the two floors, or rather the two leapers. It will require some deliberation to decide this question; and of course, it affects the construction very much. If the floor is to be double, the floor beams must mus across the width of the verandal, which she has decided shall to 12 best 6 wiches. There would be 14 of them, if they

be 18 inches between centres, the end beams being having their outer edges 5 inches inside the edges of the floor. They would measure 224 board feet. Each layer of the floor would

be 250 feet; or 500 ft for the two. If, however, the floor is single, the beams will be 20 ft long; but there would only be 9 of them; and either one would be set against the house, even the outer edge of the outer beam 4 inches inside the edge of the floor, or else one would be set 2 inches from the house and the outer edge of the outer beam would be 2 inches inside the edge of the floor. In this case, the floor beams would measure 240 feet of board measure. Two defferent bills of lumber will follow this discussion, between which Mrs. Peirce can choose,

The breeching for the floor beams will amount to an item not altogether inconsiderable. That of the upper floor, where it may be presumed that Mrs. Peirce will out for a single floor, so that the beams will run lengthways, will be seen from below, so that it will be well to make them or namental. If the pieces are the speasure dinches by momentary what, they much have a length of the inches. If they were made of hickory, they could be policied. The fegine shows the simplest design, approximately. The depth down the beam of

25 inches, or day
rates, is under side of the
upper floor and the
hickory bre aching must be,
planed, if non polished,

Positively the Final, Ultimate Definitive (1907) Dec. 28. Final 1907 Dec 28 Specifications of Lumber for Mrs. Peirce's 20-FOOT VERANDAH, on N.E. side of house. Goss Messers Length in foot in inches Kind of What for Quality. Board MOUSUTE, Finish of Pieces 4in 20# Sill Hembook 1 4×8 Sound 2 x 8 20 Lower Storey 12 2 x 8 Floor-Beams Hard Maple or Doner Storey Eloor Booms. AX 8 Planed on 3 Seven 20 4 Some Hendsome Clear Phoned on3 Plate for Pasters 3 x 3 Ditto 20 Ditto Sides Rich to Serve & Ridge Pole Planed on 2 X 7 Dillo 20 Ditto ,2,3 4 2 Sides 280 23 Planed on Rafters 4x8 Ditto Ditto 3 sides Haird on D Roiling 32 x 3 90 Ditto Dillo 45 Boards for under floor lower storey 250 Rough Superior Stand Wood Boards for Upper floor Lower Storey Plant on any side of Narahed CLERA! Pitch Planed on Bornds for Singh Hoor, Upper Storey dillo 250 dillo 2 sides a s Poplar if me have it, Hard Maple Esting and falk Boards for Roof Sheathing Domes on ditto. 265 one sido. over the Wood Flored 3 sides 111 Bres chip Ditta 2×2 Hardwood 45 2471 (Pusto

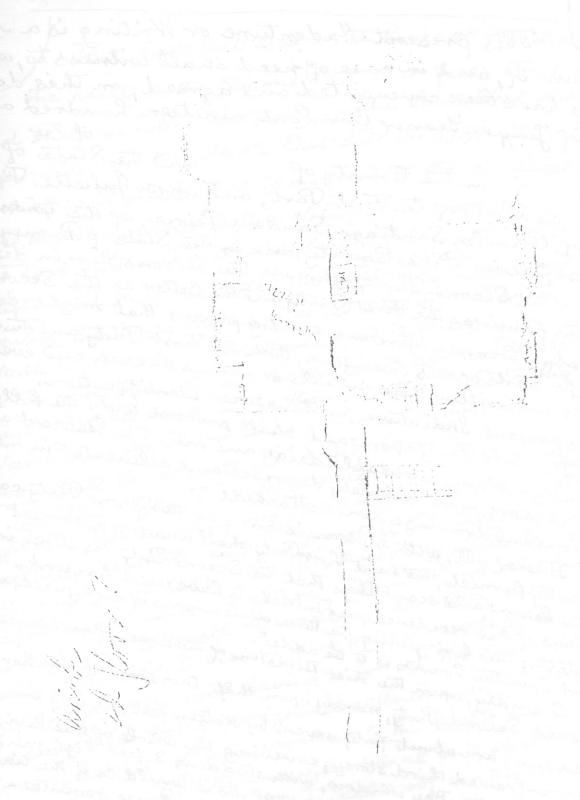
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2 Vast

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Calculations for 16 x 34 foot VERANDAH. continued 1907 Dec 30 A IXI bar I foot long supporter abone end loaded with Its abother 32 W/ 1° in = 20736 W (langth in feet)3 Deflation = E 5.9674 × 106 1728 3456 32 = -5.36247 × 10-6 20736 1,124 10.72494 1645884 16.08741 = 21.44988 4 3351544 26.81235 5 3351544 32117482 6 37,53729 53624704 53.62470  $\frac{1}{d} = 12 \left(\frac{1}{2}\right)^3 = 1728 = 1728 \times 10^3$ 10926635 05.36247 × 10-3 3 75373 10725 4290 9.26635 x 10-3 3)926635 8)926635 100103329 - h 20665 8 2 0.926635 X 10-2 91308878 0.60926635 3099873 137 4366 17 7 957 20 1 1549 24 9514 0 27 9 23 23 413315 27799053 07413080 5166445 3706540 4 0.0000 428 998 6199736 46331755 7233027 826609 933289 2223924 55598106 2965232 34359 3706540 64864457 4447848 7413080 4 .00034591 (6) 3.00001220001 5189156 83397159 8)00103329(H) 0858-1 5930464 000343591 9266350 6671772 7413080 85 2145-5 00012916 2574-6 1374360 20 3003-7 1717957 3432-8 2061549 2405140 4290 0645 2748732 3092323



post 1907 sketch (note small balconies at East Chambers) second floor. apparently in hand of C.S. Peirce copy from collection of Max H. Fisch, Peirce Edition Project

[Appendix J] 1709 1/8 Page ! This present Judenture or Writing is a Memorandum of, and in case of need shall witness to what things have been covenanted and agreed, on this day the things have been covenanted and agreed, bundred and nine to of July in Year of Our Lord nineteen hundred and nine in the Bounty of and the State of as Party of the First Part, and Mrs. Juliette Peirce, between wife of Charles Santiago Sandars Priver of the township of Westfall in Pike County and in the State of Pennsylvania, Party of the Second Part, who are the persons have in designa. lad, the former as the First Party and the latter as the Second Party. And because there are sundry papers that might be mis-Taken for parts of this Indenture, both the First Party and the Second Party have written their initials or names on each and every page of this present Indenture for their sweer identification.

The First Party aboresaid shall proceed to do the following.

The First Party aboresaid shall proceed to do the following. Things without any avoidable delay and with his best art and skill; which things are more minutely described and delineated in the special which things are more minutely described and delineated in the special First of all, with such assistance as the Second Party can conveniently furnish, the said Foreto Party shall draw up a correct list of all the Beams and scantle in that the Sono At Day of ments. fications and drawings here to attached: all the Beams and scantlings that the Second Porty Par stores in the perfecus and scantlings to do to have partiens of her residence, and intends to have used for works hereing set firth; this list-giving the three dimensions of each piece of the report upon the boards is to be added in of the house of residence of the report upon the First Division of the house of residence of the foresaid Secondly upon the First Division of the house of residence of the foresaid Secondly upon the First Division of the house of residence of the foresaid Secondly upon the First Division of the house of residence of the foresaid Secondly upon the First Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the foresaid Secondly upon the first Division of the house of residence of the first Division of the house of residence of the first Division of the house of residence of the first Division of the house of residence of the first Division of the house of residence of the first Division of the house o aforesaid Second Barty, namely upon that Division whose horizontal dimensions are about forty-seven by sixteen feet, he is to erect a ballown framed third storey, covering the whole of this Division with studding 8 fast high; and with exclusive of the Bay windows, with studding 8 fast high; and with exclusive of the Bay windows, with studding 8 fast high; and with exclusive of the Bay windows, with studding 8 fast high; and with exclusive of the Bay windows, with studding 8 fast high; and with exclusive of the bouse seventeen fast.

exclusive of the copy of the present roof, as it would be if the time fast.

a roof the copy of the present roof, as it would be if the time fast. a roof the copy of the present roof, as a wond we give fast of the house seventeen fast of the Second Division (which is that part of the house seventeen fast of the Second Division (which is chiefly covered with a time roof) did not exitent deep, horizontally, that is chiefly covered with a time roof were partly over that roof of the First Division, and if this latter roof were partly over that roof of the First Division, and if this latter roof Page I That South East side of the house of residence. the party of the Second Part that faces the nubles wad shall be called the front and the South West sides the Regnt side and the North East side the Left side. That part of said house that is nearest to the public read and that is covered with a shingled roof with a gable at the Left end and a semicylindrical portion abilities Right end shall be called the First Division; and the part of the house that is attached to the First Division on the North West side of the same and is chiefly covered by a tin roof shall herein be called the Second Division; and the part of the same house that is attached to the North West side of the Second Division and is covered with a !!

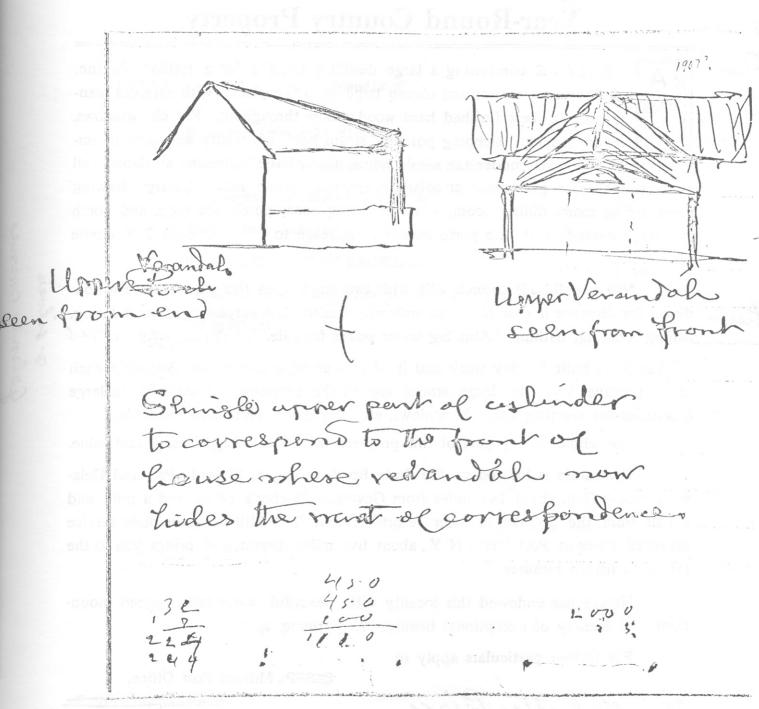
hipproof shall be called the Third Dirision. The Party of the First Part shall without needless delay build a Third Storey over the whole of the First Division including the semicylindrical partion but excluding the Bay Window on the Lebh Side. This there's storey shall be constructed as a balloon framed structure with 2"x 4" inch studding Dight Beet high, and it shall be roobed as the storey below is on gather as the First Division is at present rocked; that is to say with a gable roof having a fall of two feet vertical for every three feet of horizontal extension in the direction of deepert fall, that is, parallel to the Right and Left sides of the house. But the remiciplindrical end shall be roofed as it is at present with a conical roof continuous with the gable Spart.

The aforesaid Second Party is to furnish all the material in the rough that will be required to enable the First Party of excellent the above items of this agreement, and she shall exected the above items of this agreement, and she shall exected the first Party whatever sum he agree supon for partitions pay the First Party whatever sum he agree supon for partitions in the new Second and Third Stores and also the Sum of Two in the new Second and Third Stores and also the Sum of Two week thundred Dollars, their payments of he completed within one week of the date of his having completes all his part of the agreement. Of the date of his having completes all his part of the agreement.

And partial payments shall be made from time to time or have the completion of there parts of the work for which prices have here given by the First Party in the hist of Prices have annexed.

## Appendix K

[Hand of C.S. Peirce, Peirce Papers, Houghton Library. Difficult to interpret this view could date from a 1907 when Peirce thought about verandas, or it could date from 1909 when he may have been designing a roof over the new third floor Palladian window.]



Appendix L

Gild edg titel

revisede, 1931? VX

# A Rare Opportunity to Acquire Beautiful, All-Year-Round Country Property

True.

N ESTATE comprising a large dwelling suitable for a fashionable inn, clubhouse or sanitarium; eleven large open fire places, with rare, old mantel pieces; best finished hard wood floors throughout; French windows, seven spacious sleeping porches, steam heat, electricity and modern im-

provements, fine cellar under the whole house, thirty large bedrooms available, ball room suitable for grill room or solarium, spacious music room, library, drawing room, living room, dining room, spacious dining room porch, tea room and porch and large varanda and fine porte cochere. Acreage to suit. One-third of a mile river front.

Also a well-built French villa with two large open fire places, all in a confire a dition for changes if desired. Extraordinarily healthful, unsurpassing views, hunting, fishing, boating, bathing. Also big water power for sale.

All has been built by day work and is of substantial construction. Materials such as sand, gravel and fine large stones are on the property and available in large quantities for erecting villas, bungalows, etc. Bungalow plots also available.

The whole or any part of this property will be sold regardless of real value.

The estate is located on the State Road leading to Milford, Pa., and Delaware Water Gap, about two miles from Governor Pinchot's estate and a mile and a half from the popular summer resort-Milford. The Milford automobile service meets all trains at Port Jervis, N. Y., about five miles distant, and brings you to the estate in fifteen minutes.

Nature has endowed this locality with beautiful water falls, rugged mountains and scenery of exceptional beauty. A charming spot.

For further particulars apply to

Mrs Juliette Peirce Arisbe Part Milfond Pote to

. P., Milford Post Office, Box 233, Millioni, Pa.

[ printed post 1911 - pencil notes by Juliette Peirce F. 1931. Peirce Papers, Houghtan Library ]

alone moore

## Appendix M

Extracts from File #1502.13

Tract 12400-1 (Charles S. Peirce House and Site)

Management and Disposal Branch

Real Estate Division

U. S. ARMY CORPS OF ENGINEERS

U. S. Customs House, 2nd and Chestnut Streets
Philadelphia, PA.

## [Extract from Appraisal by Robert B. Smith, 1971]

## II - NEIGHBORHOOD ANALYSIS, ZONING AND SERVICE FACILITIES

## General Description of the Area

Location: The Tocks Island Dam and Reservoir will be located on the Delaware River approximately five miles upstream from the Delaware Water Gap. The Delaware Water Gap National Recreation Area will surround the reservoir. The combined project covers a portion of the following counties: Northampton, Monroe and Pike in Pennsylvania; Warren and Sussex in New Jersey and Orange in New York.

Geography: The area is in the Appalachian Mountain Region with typical river valley land and wooded mountains. The valley is changing from farming to recreation while the mountains have many seasonal dwellings. The soils vary from good farmland to shallow rocky soils with bedrock outcrops.

<u>Climate:</u> The growing season varies from 130 to 160 days and the precipitation ranges from 38 to 50 inches depending on the elevation. Snowfall ranges from 30 to 70 inches. Major flooding occurred along the Delaware River in 1903, 1936 and 1955 from tropical storms.

Roads and Highways: The area is serviced by Interstate 80 and 84; U. S. 209, 206, 6 and 611 plus several State and Township maintained blacktop and graveled roads.

Transportation: Three bus lines and one railroad provide service. Scheduled airline service is available at Allentown, Newark and New York City.

<u>Utilities and Services:</u> Electric power is supplied by three companies. Telephone service is provided by two companies. Natural gas service is provided by two companies. R.F.D. mail routes serve the area.

Recreation Facilities: Within this five county area, almost any form of recreation can be found. This scenic area with numerous lakes has hundreds of accommodations and is a well-established resort area. Visitors take advantage of the plush resorts or "rough it" in the forested country.

The Economic Situation: The general trend of the economy is best described as rising sharply due to the recreational influences. The economy is currently enjoying a summer recreational and residential boom as result of the general prosperity in the urban centers of New York, Newark and Philadelphia. Large areas have been platted so the upward trend should continue. It is apparent, based on the foregoing, that the economic trend of the area is directly affected by capital and demand from outside the area and is not due to local influence.

## Locality

The subject property is situated in Pike County, Pennsylvania. The Tocks Island Reservoir and the Delaware Water Gap National Recreation Area will cover a portion of the eastern edge of Pike County. The total land area in Pike County is 558 square miles or 357,120 acres. There are 300,000 acres of woodland in the county of which 90,000 acres are state game and forest lands. The surface of the county is elevated and uneven but not mountainous, except where the Pocono Plateau enters the Delaware River Valley. Due to the glacial action, the county is dotted with lakes, which cover about 13 square miles or 8,320 acres.

Pike County, in which the subject property is located, is one of the least populated counties in Pennsylvania. The year-round population is approximately 9,500 but the second-home population is estimated at 21,000, while the camp population is about 9,000. Milford, the County Seat, has a population of approximately 1,200. Matamoras is the larger of the two towns in the county with a population of about 2,000. The county contains two Boroughs (Milford and Matamoras) and 11 second-class Townships. The villages of Bushkill and Dingmans Ferry are rather typical country villages with the usual small church, commercial improvements and dwellings.

The interior of the county consists mainly of second growth hardwood timber. The virgin pine timber was cut by great lumbering operations in the 1890's. Most of the land now in the state forest and game lands was purchased by the state after it had been laid to waste by poor lumbering practices.

Most of the commercial activity in the county is along the main arteries, U. S. Routes 209 and 6. Nost of these commercial improvements cater to the summer recreational activities, such as restaurants, bars, summer hotels, motels, gas stations, small retail stores, etc.

Pike County does not have planning or zoning ordinances. Most deed conveyances do contain deed restrictions which prescribe types of use, size of dwellings, etc. The lack of zoning protection from inharmonious influences is a major problem in the development of the rural lands in Pike County.

There are three school districts in Pike County and numerous churches. Several colleges are within commuting distance of the county. There are no hospitals in Pike County but Port Jervis, New York, East Stroudsburg and Honesdale, Pennsylvania, serve the county. The only library in the county is at Milford.

## III - DELINEATION OF TITLE

Grantor: Margaret D. Skinner bodeville 21 ydracorg dani dwa odl

Grantee: Robert C. Phillips and Marian R. Phillips

Date of Instrument: 24 November 1942

Deed Book: 98, Page 476

History and Occupancy: The property has been occupied by the present owners since its purchase. Mr. Phillips passed away in November 1969. The only occupant of the house is Mrs. Phillips. Her son, who owns and operates the Pike County Lumber Company and the Tom Quick Inn in Milford, expressed a desire to dispose of the property so that his mother might move into a smaller house. This house was once the home of Charles S. Pierce, who was a noted philosopher. According to Mrs. Phillips, Mrs. Pierce made several additions to the house on a rather haphazard basis. These would include the addition of a small room this year and possibly some other small addition each year that money was available. Since the purchase by the Phillips they have made several alterations to the house so that this is not evident in the design at the present time.

## IV - NEIGHBORHOOD DESCRIPTION

The property is located about 2 miles north of Milford, Pennsylvania on a 3-lane concrete highway leading to Port Jervis, New York. Driving from Milford to the property one passes two motels, a florist shop, a gift shop and barbecue shop which are closed in the winter, a dairy farm, a nice colonial house with an old filling station in front of it, the Sparkomatic Corporation Manufacturing Company which is a relatively new but small company, an open field, the Brennan Electronic Company which is also a small manufacturing company, open fields with a nice housing development in the woods behind these open fields, the Evergreen, which is a relatively new restaurant, a trailer court with Palmer Modules Manufacturing Company behind, inexpensive residences with a small cabin camp across the road and a diner type cafe. Immediately adjacent to the Phillips property are some medium range fairly unattractive residences with two small motels or cabin camps directly across from the Phillips property. Continuing on up the road in a northerly direction, there are four relatively small houses adjoining the Phillips property with the new I-84 highway passing along the back side of these properties and also forming the rear boundary line of the Phillips property. From this point on north to the interchange which is approximately 2½ miles there are no other improvements along the road due to the close proximity of the existing road and the new interstate. On the easterly side of the road there

is a small development which is also partially owned by Mrs. Philli, s, a small cabin camp, an area where the river runs very close to the a motel, a nice new Junior-Senior High School complex and an area where there are some homes, trailers and a motel.

## V - NARRATIVE DESCRIPTION OF PROPERTY

This property is a small acreage with an extremely large frame house and outbuilding and in the vicinity of many roads. A 3-lane U. S. highway runs along the front of the property. Back a short distance is another roadway with a 33' right-of-way. There is relatively little buildable area between these two right-of-ways. As has been described previously, the rear boundary line of the property is the I-84 interstate which is presently under construction.

#### Land

The land on this property is relatively open across the front and southerly portion and wooded on the back side and to a certain extent on the northerly end of the property. The open area has a gentle to moderately slope upward then slopes steeply upward in the wooded portion at the back side and terminating near the top of the ridge.

## Improvements

The main improvement on this property is a large frame house which includes a basement which is fully underground with no windows, two completely finished floors and an unfinished floored attic area which is a full 8' height to the plate with dormer windows above.

The basement has native 2"x8" floor joists 12" on center, cast iron sewer, several rooms with a rather irregular concrete floor, a fuel oil furnace and hot water heater with two 275-gallon fuel oil tanks and exposes galvanized and copper plumbing with both BX and Romex wiring.

The main floor has the following rooms: Across the front is a double living room divided by sliding doors with a semi-circular wall at one end and a fireplace at one side of the smaller portion. There is also a den with French doors and fireplace, a sitting room with a large fireplace and a dining room with a large fireplace. Other rooms include a breakfast room and a kitchen with approximately 19' of wooden painted cabinets. There is also a half-bath and an entryway as well as a large open porch on the back side and a smaller porch on the front. A general layout of the rooms both on this floor and the second floor is included in the addenda. Most of the walls are plaster on both the first and second floors, however, the breakfast room downstairs is paneled and some of the interior walls on the second floor are beaverboard

On the second floor there are six bedrooms, three full baths each with a stool, lavatory and a combination tub and shower with colored fixtures. Four of these rooms also have a wood burning fireplace. There is also a sitting room with a wood burning fireplace. The two front bedrooms and the sitting room each have a small balcony and Bedroom No. 4 has a large open porch.

The stairways are all wide and also the house has wide hallways giving it a spacious look.

The dwelling is estimated to be approximately 100 years but has had very good maintenance. A new asbestos shingle roof was put on the house and garage in the summer of 1970 at a reported cost of \$4,700.

The exterior of the dwelling was also painted in the spring of 1970 with a reported cost of \$1,775. The exterior of this house although basically frame is cobblestone veneer on the first floor level. The semi-circular design at the end of the front together with the many balconies and dormers gives this dwelling a very interesting and unique apperance.

The garage is a 24'x44' frame and cobblestone building, which as was previously stated had a new roof in 1970. This is a four-bay garage with a storage attic and is in good condition.

The poultry house is a 20'x40' frame structure with concrete floor, electricity, running water, an asphalt shingle roof and is in fair condition.

The springhouse is a 10'x12' stone structure with steel roof in fair condition.

The barn is a 30'x55' frame structure with a 16' overhead door and a 30'x37' basement. Mr. Phillips had planned to make this into an apartment house and had started some construction. However, the construction was not in an advance stage and the building is considered to be in only fair condition and of relatively little contributory value.

## Site Improvements

Site improvements include two septic systems with laterals, several evergreens and flowers, a shale driveway, and a nice lawn. Water is supplied to this property from another property owned by Mrs. Phillips which is located across the U. S. highway.

#### VI - CEMETERIES

There is a small cemetery located on the property owned by Mrs. Phillips, however, this has been given another tract number and is not included in this appraisal.

#### VII - MINERALS

There is a small shale pit at the northerly end of the property, however, it is not considered to have commercial value over and above the value of the land.

## VIII - GROWING CROPS AND TIMBER

There are no growing crops or merchantable timber on this property.

## ZONING AND RESTRICTIONS

According to information obtained from the Pike County Clerks
Office the only zoning regulations or ordinances in Pike County are
within the Borough of Milford. A zoning map of Milford with sales
P37R9 and P12CM70 delineated on it is included in the addenda.

To the best knowledge of the appraiser the subject property and all other sales used are not within a zoned area.

Mr. Gastmeger, District Engineer for Pennsylvania State Highway at Milford advised there were no curb cut requirement on U. S. Highway 6 and a commercial entrance can be up to 60 feet in width. To his knowledge there are no restrictions on signs along U. S. Highway 6. He did not know the exact restriction of signs along Interstate 84, however, he thought that they would have to be set back at least 1000 feet, which would make it impractical to place signs on the subject property due to the topography.

## SEVERANCE

The total property in this ownership is approximately 27.70 acres. Although all of this area is in the project area, by administrative determination only Tract 12400-1 containing 9.61 acres is being acquired at this time.

The other parcel located directly across the road is the unsold portion of a small riverfront development. It contains a community well which serves the development and also the property being appraised.

Under normal selling conditions it is considered that the purchaser would require a right to continue to obtain water from the well. Since the Government plans to acquire the balance of this property several years in the future an administrative determination should be made as to whether or not it is necessary to include this in our deed. This appraiser has based the value on the assumption that the value would include the continued use of the water supply.

There is considered to be no severance damage as the development land is considered in no way dependent upon the subject property.

## Acquisition of I-84 Right-of-Way

There was approximately 1.39 acres acquired by State of Pennsylvania by condemnation for Interstate 84 right-of-wyy. Phillips Claim No. is 5100779. A board of view was appointed 19 February 1971, however, no report had been received in the Pike County Clerk's Office as of 22 April 1971.

## IX - HIGHEST AND BEST USE

As was pointed out previously in the report in the description of the neighborhood, there is several commercial properties on both sides of the subject. These are of various types and include several motels, restaurants, and small manufacturing plants. The highest and best use of this property is therefore considered to be for some type of commercial enterprise.

Several things were considered in trying to arrive at the highest and best use such as the use of the land in the area, the affect of the present highway on the property, the affect which Interstate 84 when open will have upon Highway U. S. 6 and 209 along this property, and the general topography and layout of the land in comparison to other land areas available in the general area. One of the possibilities considered was that this large dwelling might adapt to a restaurant type of operation and there would be sufficient land available on the property to build several motel units complete with a swimming pool. The dwelling is in good condition and as an immediate and interim use could be used as a residence.

## X - METHOD OF APPRAISAL

Both the cost approach and the market data approach are considered in this appraisal.

In the cost approach three unimproved sales are listed below and the subject property compared with these sales in order to estimate the value of the underlying land. Although many other sales were checked, these three are considered to be the most comparable to the subject property.

Sale No.	Grantor	Grantee	Date	Acres	Consideration	Price Per Acre
P72A9	Strickler	Miller	12/69	5.304	\$35,000	\$6,030
P71A9	Meyer	Strefred	11/69	5.68	\$20,000	\$3,520
P67A70	Drexler	YMHA	3/70	18.5	\$19,000	\$,1027

Sale P72A9 and Sale P71A9 are both smaller acreage sales located along the same highway as the subject property. Sale P72A9 is located southwest of the subject property, and Sale P71A9 is located northeast of the subject property. The location of the subject is considered to be approximately equal to these sales, however, the subject topography and percentage of usable commercial area is considered inferior to these sales.

Sale P67A70 is an 18.5 acre tract located along Interstate 84 but does not have access on to this property, therefore, the subject is considered superior to this sale in location. The two properties are considered approximately equal in overall land characteristics.

Based on these and other sales in the area, it is the opinion of this appraiser that the indicated land value is \$20,000.

### Cost Less Depreciation

In order to estimate the cost of construction several local contractors and building material suppliers were contacted by this appraiser and other employed at the Real Estate Project Office. Marshall and Swift Valuation Service was also consulted.

Dwelling		
Main floor & basement 2740 sq. ft. @ \$17.50/sq. f Second floor and attic 2760 sq. ft. @ \$12.50/sq. Porches 1000 sq. ft. @ \$3/sq. ft.		
Balconies 385 sq. ft. @ \$4/sq. ft.	1,540	
Less 65% observed depreciation	\$86,990 56,540	
Depreciated value of dwelling Garage	a sa <del>tu filozo</del> d Harifelañoa	\$30,450
1056 sq. ft. @ \$6/sq. ft. Less 40% depreciation	\$ 6,336 2,536	
Depreciated value of garage		3,800
Contributory Value of Poultry House		none
Contributory Value of Barn		none
Contributory Value of Stone Shed		100
Site Improvements		
Water supply	\$ 500	
Septic system	1,000	
Landscaping including drive	1,500	
Total site improvements	Wald field a committee of the plant in the party on the party of the p	3,000
Land Value by Comparison		20,000
Indicated Value by Cost Approach (rounded)		\$57,350

# PENDING NEW PENDING OF TRACT 12400-1

Revised acreage will be 9.61 acres.

The legal description attached hereto indicates there are 9.73 acres. However, there is a small cemetery containing 0.12 acre which is discussed under Paragraph VI that will be excluded from this tract and given another tract number.

(7) South 37° 16' West 116 feet to a point in the center of the said Old Milford Road; thence, leaving the center of the said Old Milford Road, and continuing with the lands of the said Moon, et ux,

(8) South 40° 46' East 114 feet to a corner common to the lands of the said subject owner and the lands of the said Moon, et ux, being a point in the center of the said U. S. Routes 6 and 209; thence, leaving the lands of the said Moon, et ux, with the center of the said U. S. Routes 6 and 209, and severing the lands of the said subject owner.

(9) South 49° 29' West 127 feet to a corner common to the lands of the said subject owner, and the lands now or formerly of John J. Breitfeller, et ux; thence, leaving the lands of the said subject owner, and with the lands of the said Breitfeller, et ux, and continuing with the center of the said U. S. Routes 6 and 209,

(10) South 51° 08' West 300 feet to a corner common to the lands of the said subject owner, and the lands of the said Breitfeller, et ux; thence, leaving the lands of the said Breitfeller, et ux, and severing the lands of the said subject owner, and continuing with the center of the said U. S. Routes 6 and 209,

(11) South 54° 15' West passing a corner common to the lands of the said subject owner, and the other lands now or formerly of John J. Breitfeller, et ux, at approximately 25 feet, passing a corner common to the other lands of the said Breitfeller, et ux, and the lands now or formerly of Margaret Mahler, at approximately 175 feet, passing a corner common to the lands of the said subject owner, and the lands of the said Mahler, at approximately 325 feet, passing a corner common to the lands of the said subject owner, and the lands of the said Graf, et al, at approximately 351 feet, in all 501 feet to the place of beginning, containing 9.73 acres, more or less.

The bearings used herein are referenced to the Pennsylvania State Rectangular Grid System (North Zone), 1927 N. A. Datum.

It is the intent of the foregoing description to include a part of the same land as that described in a deed from Margaret D. Skinner, to Robert C. Phillips and Marion R. Phillips, his wife, dated November 28, 1942 and filed for record November 28, 1942 in Deed Book 98, Page 476, in the records of Pike County, Pennsylvania.

TRACT: 12400-1

OWNER: Robert C. rhillips, et ux

ACRES: 9.73

DELAWARE WATE GAP 'HATIONAL RECR. TION AREA PENNSYLVANIA, NEW JERSEY, NEW YORK

H.W.T., A.S.C. 7-21-69 (R.) S.J.W. 10-5-70

A certain tract of land situated in the State of Pennsylvania, County of Pike, Township of Westfall, and more particularly bounded and described as follows:

Beginning at a corner common to the lands of the subject owner, the lands now or formerly of Rhoda Graf, et al, the lands now or formerly of James J. Plunkett, et ux, and the lands now or formerly of Daniel Benedetto, et ux, being a point in the center of U. S. Routes 6 and 209, the said point being further located South 50° 49' West 1733 feet, more or less, from the intersection of the center of Phillips Lane with the center of U. S. Routes 6 and 209; thence, from the said point of beginning, and with the lands of the said Plunkett, et ux,

(1) North 35° 26' West 164 feet to a corner common to the lands of the said subject owner, the lands of the said Plunkett, et ux, the lands now or formerly of Bert Van Etten, et ux, and the lands now or formerly of Charles I. Sebring, et ux, being a point in the center of a road commonly known as Old Milford Road; thence, leaving the lands of the said Plunkett, et ux, and leaving the lands of the said Van Etten, et ux, and with the lands of the said Sebring, et ux, and with the center of the said Old Milford Road,

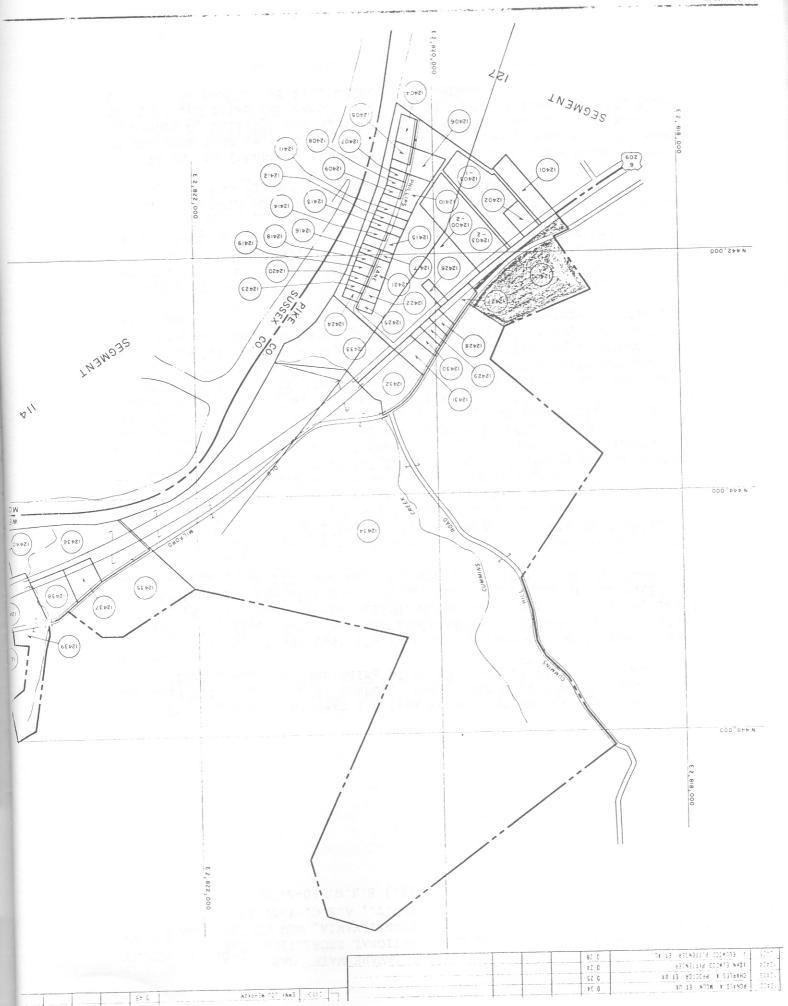
(2) North 65° 54' East, passing a corner common to the lands of the said Sebring, et ux, and the lands now or formerly of Otto L. Georgi, Jr., at approximately 109 feet, in all 135 feet to a corner common to the lands of the said subject owner, and the lands of the said Georgi, Jr.; thence, leaving the center of the said Old Milford Road, and continuing with the lands of the said Georgi, Jr.,
(3) North 33 06' West 466 feet to a corner common to the lands

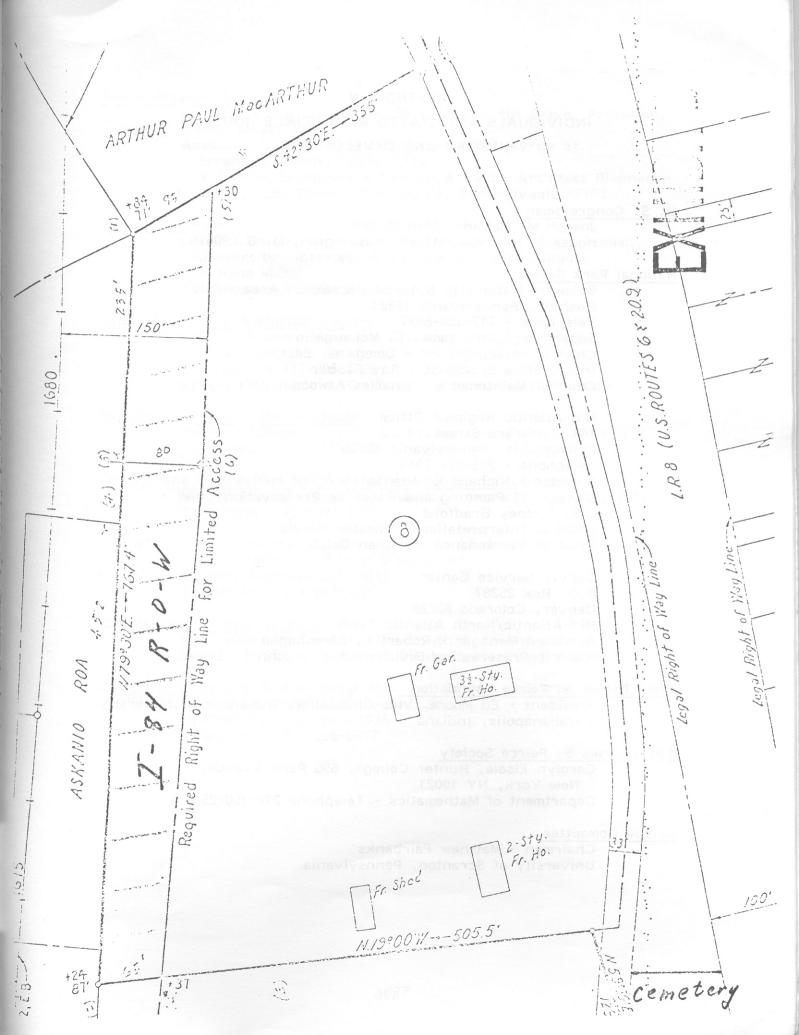
of the said subject owner, the lands now or formerly of the Commonwealth of Pennsylvania, and at a point in the line of the lands of the said Georgi, Jr.; thence, leaving the lands of the said Georgi, Jr., and with the lands of the said Commonwealth of Pennsylvania, the following courses and distances:

((4) North 68° 50' East 521 feet

(4) North 66 56' East 288 feet to a point in the line of the lands now or formerly of Arthur Paul MacArthur, et al; thence, leaving the lands of the said Commonwealth of Pennsylvania and with the lands of the said MacArthur, et al,

(6) South 56° 21' East 250 feet to a point in the line of the lands or cornerly of George L. Moon, et ux, being a point in the center of the Tourd Road; thence, leaving the lands of the said MacArthur, et al, the said Moon, et ux, and with the center of the said





#### APPENDIX N

# INDIVIDUALS ASSOCIATED WITH PEIRCE HOUSE HISTORY AND DEVELOPMENT

U. S. Congressman

Joseph M. McDade, 10th District House of Representatives, Washington, D. C. 20515

National Park Service

Delaware Water Gap National Recreation Area Bushkill, Pennsylvania 18324 Telephone - 717-588-6637 Superintendent - James L. McLaughlin Chief of Interpretation - Omega G. East Interpretive Specialist - Ray Fauber Chief of Maintenance - Charles Atwood

Mid-Atlantic Regional Office

143 South 3rd Street
Philadelphia, Pennsylvania 19106
Telephone - 215-597-7013
Director - Richard L. Stanton
Division of Planning and Resource Preservation Chief S. Sydney Bradford
Chief of Interpretation - Chester Harris
Chief of Maintenance - Nathan Golub

Denver Service Center
P.O. Box 25287
Denver, Colorado 80225
Mid-Atlantic/North Atlantic Team
Assistant Manager - Robert L. Steenhagen
Historic Preservation Division Chief - John F. Luzader

The Charles S. Peirce Foundation

President - Ed Moore, Vice-Chancellor, Indianapolis University, Indianapolis, Indiana

The Charles S. Peirce Society

Carolyn Eisele, Hunter College, 695 Park Avenue, New York, NY 10021 Department of Mathematics - Telephone 212-360-2368

Arisbe Committee

Chairman - Matthew Fairbanks University of Scranton, Pennsylvania

## Peirce Museum Project

Director - Preston Tuttle, 75 S. Stanworth Drive, Princeton, New Jersey 08540

Associate Director - Sondra Myers, 1121 Myrtle St., Scranton, Pennsylvania 18510

A/E Exhibit Designers - Venturi & Rauch Architect Planners, 333 S. 16th Street, Philadephia, Pennsylvania 19103

## The Perice Papers

General Editor - Max Harold Fisch, Peirce Edition Project, University Libraries, 420 Blake St., Indianapolis, Indiana 46202 Telephone - 317-264-2173

## The Pike County Historical Society

Carolyn dePuy, Honorary President and Consultant 309 West Ann St., Milford, Pennsylvania Telephone - 717-296-7026 Ernest Chamberlain, C. David Hissman, Norman Lehde

#### Previous Owners of Peirce House

Robert Phillips, Jr., R. D. #1, Milford, Pennsylvania 18337 Telephone - 717-686-1788

## Descendant of Previous Neighbor of Charles S. Peirce

Mr. Richard Gassman, Avenue L., Matamoras, Pennsylvania Telephone - 717-491-4003

## Son of 1920s "Arisbe Inn" Participant (Mrs. Albert Steiner) Albert Steiner, 211 West George Street,

Albert Steiner, 211 West George Street, Milford, Pennsylvania 18337 Telephone - 717-296-7226

#### Charles S. Peirce's Relative

Mrs. Helen Peirce Ellis (lived with Rosamond Peirce) 1874 Main Street, Westport Point, Massachusetts 02791

## Daughter of Livery Stable Owner Mr. Van Tassell who transported Peirces

Mrs. Edna Green, 200 E. Ann St., Milford, Pennsylvania 18337 Telephone - 717-296-6617

## APPENDIX O

## C.S. PEIRCE HOUSE, D.W.G.N.R.A.

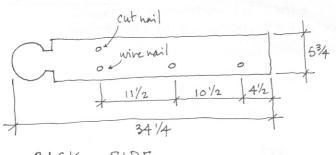
## PAINT COLOR STUDY

LOCATION: EXT , WALL ...; INT ..., FLOOR ..., ROOM ..., WALL . ARCHITECTURAL FEATURE: Wood Balluster-Newel from Railing -Probably from pre- 407 porch along East facade. Newel now used under prop - 3rd FL. East End, NE Chimney Area

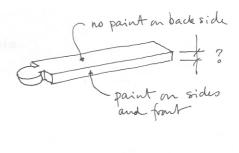
SAMPLE TAKEN 10/29/76 BY - Mary Woodcox/P.HB. EXAMINED - 12,30,1977 BY. P. H. Batcheler NATIONAL PARK SERVICE DSC-HIST, PRESERVATION

DATE	(COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
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	Base of wood	and the second s	- Poplar
c. 1892	Light cream +	2.5 Y 9/2	Paint - oil base - hand ground pigments -
		errorrorrorrorrorrorrorrorrorrorrorrorro	Ochre, white at lawy black visible
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FURTHER OBSERVATION, DOCUMENTATION, COMMENT:



SIDE BACK



178

## C.S. PEIRCE HOUSE, D.W.G.N.R.A.

## PAINT COLOR STUDY

LOCATION: EXT , WALL ; INT , PLOOR . , ROOM . , WALL . ARCHITECTURAL FEATURE:

South Entrance Verandah Post - c. 1907-1909

SAMPLE # 2 TAKEN 8/29/77. BY - P.H. Batchler EXAMINED 12/30/77. BY. P.H.B. NATIONAL PARK SERVICE DSC-HIST. PRESERVATION

HISTORIC DATE	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
	Wood base		
c.407-9	stain	± 7.5 YR 3/4	
ii	varnish		This was apparently original finish
1936?	cream (light)	2.5 Y 9/1	Machine made paint
	cream	. 2.5 Y. 9/3	q
	white		и
	White		0
c. 1970?	white	March 100 100 100 100 100 100 100 100 100 10	д
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## C.S. PEIRCE HOUSE, D.W.G.N.R.A.

## PAINT COLOR STUDY

ARCHITECTURAL FEATURE:

East Verandah Post - ie 1907-9

., ROOM . , WALL .

SAMPLE # 3

TAKEN \_8/29/77

BY \_ PHBATCHULEY

EXAMINED 12/30/77

BY . PIAB

NATIONAL PARK SERVICE
DSC-HIST. PRESERVATION

HISTORIC DATE	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
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	Mite		
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c. 1970?	WWIT	-	
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# C. S. PEIRCE HOUSE, D.W.G.N.R.A. SAMPLE # 4 PAINT COLOR STUDY SAMPLE # 4 TAKEN -8/29/77. BY - P.H. BATCHELE

LOCATION: EXT , WALL .; INT .. , PLOOR .. , ROOM .. , WALL . ARCHITECTURAL FEATURE : East 3rd Floor Palladian Window - ic. 1909

North pier coin stone.

EXAMINED \_ 12/30/77 BY. PHB. NATIONAL PARK SERVICE DSC - HIST. PRESERVATION

HISTORIC	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
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## C.S. PEIRCE HOUSE, D.W.G.N.R.A. SAMPLE, # 5

## PAINT COLOR STUDY

LOCATION: EXT /, WALL .; INT ..., PLOOR , ROOM. , WALL.,
ARCHITECTURAL FEATURE:
34 FL. East Facade - Palledian Window

SAMPLE # 5 TAKEN - 8/19/77 -BY - PHBAKCHULY EXAMINED - 12/30/77 BY - PHB NATIONAL PARK SERVICE DSC-HIST. PRESERVATION

11STORIC DATE	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERIS	TICS	- (will) 57.40
	Word base	Commission bullethooks Survey and Stage of Stage			hariain
c 1909	Ochre	10 YR 6/8	Thide layer	v - m tact	from being in
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c. 1970	white				
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## C.S. PEIRCE HOUSE, D.W.G.N.R.A.

## PAINT COLOR STUDY

ARCHITECTURAL FEATURE:

3rd Fl. East Elevation - Palladian Windows Hord (Roof) Frame support -

SAMPLE # 6
TAKEN \_ 8/29/77
BY \_ P. H. Batchele \_
EXAMINED \_ 12/30/77
BY. PHB
NATIONAL PARK SERVICE
DSC-HIST. PRESERVATION

HISTORIC	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
	Wood base		
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	light gray	2.5 Y 7/2	man and a man along a man along a man along a man a ma
c. 1936	white		
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A management of the American desired	go an around already already already and a second already are a second already and a second already and a second already are a second already and a second already are a second are a s		
			A STATE OF THE PARTY OF THE PAR

## C.S. PEIRCE HOUSE, D.W.G.N.R.A.

## PAINT COLOR STUDY

LOCATION: EXT , WALL .; INT .. , PLOOR .. , ROOM .. , WALL .. ARCHITECTURAL FEATURE!

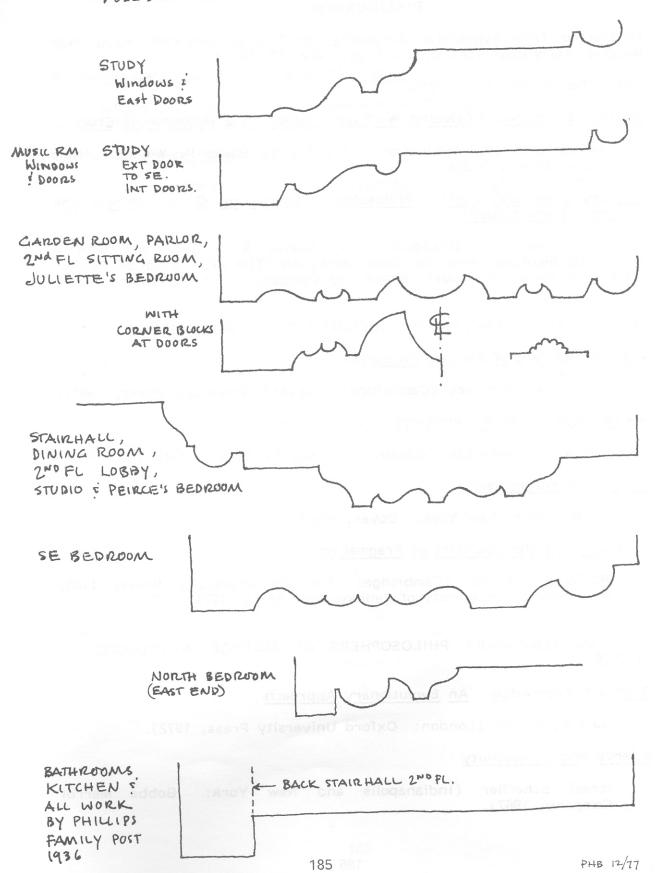
3º How East Elevation - Palladian Window Exterior surface of Sash -

EXAMINED \_ 12/30/77 BY. PHB NATIONAL PARK SERVICE DSC-HIST. PRESERVATION

HISTORIC DATE	LAYER DESCRIPTION (COLOR, VARNISH, DIRT ETC.)	MUNSELL #	CHARACTERISTICS
	word base		
0.1909	Ochre	10 YR 6/8	Original finish
	dirt		
c. 636	White	- annutario del trapat y Lagras MA-AND. E PRO-SE N. Del	
	Cream		
	bright green	2.5 6 3/4	
c 420	White		
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## APPENDIX P

PEIRCE HOUSE INTERIOR TRIM - DOORS & WINDOWS FULL SIZE PROFILES - VERIFY FOR ANY RESTORATION WORK.



#### APPENDIX Q

#### BIBLIOGRAPHY

(Extracted from typescript biography on file at Delaware Water Gap National Recreation Area by Jon Segar, May 17, 1974)

#### EDITIONS OF PEIRCE'S WORK

<u>Charles S. Peirce: Selected Writings (Values in a Universe of Chance)</u>

Edited with an introduction and notes by Philip P. Wiener. (New York: Dover, 1958).

Chance, Love and Logic: Philosophical Essays by C. S. Peirce, the Founder of Pragmatism

Edited with an introduction by Morris R. Cohen, and with a supplementary essay by John Dewey on "The Pragmatism of Peirce" (New York: Harcourt, Brace and Company, 1923; Braziller, 1956).

ABOUT PEIRCE'S PHILOSOPHY, INFLUENCES, FRIENDS, LIFE

## The Development of Peirce's Philosophy

Murray G. Murphey (Cambridge: Harvard University Press, 1961).

## An Introduction to the Philosophy of Charles S. Peirce

James K. Feibleman (Cambridge: M.I.T. Press, 1949 and 1970).

## Peirce and Pragmatism

W. B. Gallie (New York: Dover, 1966).

## Evolution and the Founders of Pragmatism

Philip P. Wiener (Cambridge: Harvard University Press, 1149; Philadelphia: University of Pennsylvania Press, 1971).

SOME CONTEMPORARY PHILOSOPHERS OF SCIENCE INFLUENCED BY PEIRCE

## Objective Knowledge: An Evolutionary Approach

Karl R. Popper (London: Oxford University Press, 1972).

## Science and Subjectivity

Israel Scheffler (Indianapolis and New York: Bobbs Merrill Company, 1967).

## Human Understanding

Stephen Toulmin (Princeton: Princeton University Press, 1972).

## PEIRCE PAPERS

## Annotated Catalogue of the Papers of Charles S. Peirce

Richard S. Robin. The University of Massachusetts Press, 1967, Library of Congress Catalog Card Number 67-28217.

## Charles S. Peirce Papers

Houghton Library, Harvard University, Cambridge, Massachusetts.

#### APPENDIX R

## LIST OF PEIRCE HOUSE PHOTOGRAPHS

Houghton Library, Harvard University, Cambridge, Massachusetts, Charles S. Peirce Collection

- C. 1892-1907 Charles S. Peirce, Juliette Peirce, unidentified young woman next to well at southeast corner of house.
- C. 1892-1907 southeast view of Peirce House.

Undated view of Juliette Peirce asleep in her bedchamber.

- Undated view of Charles S. Peirce and Juliette Peirce standing along the south side of house facing each other, surrounded by overgrown vegetation.
- 1920s view of Juliette Peirce talking with Mrs. Albert Steiner (?) taken at southeast round concrete terrace. The capped well is in background.
- 1920s view of white dog seated on a chair bottom before the east concrete porch.
- 1920s view of southeast corner of home with a boy, two ladies, and Juliette Peirce. This view shows the unfinished state of the third floor, overgrown vegetation, capped well, and general run-down appearance.

Max H. Fisch Collection

C. 1892-1907 Charles S. Peirce seated, and Juliette Peirce with feather collar standing with hand on stone well rim. The turret porch in in background. Note Delaware Water Gap National Recreation Area has a cropped close-up copy of this photograph showing only Peirce and Juliette.

Albert Steiner Photographs owned by Peirce Edition Project, Unversity Libraries, Indiana Unviersity. Copy negatives at Delaware Water Gap National Recreation Area.

1920s view of north side of house from northeast corner.

1920s view of east porch and upper porch with glassed-in railing.

1920s view of southeast round turret corner.

1920s view of southwest corner of house with unfinished exposed studding.

Delaware Water Gap National Recreation Area Photographic Collection. (Note prints and copy negatives of all of the above will also be on file at Delaware Water Gap National Recreation Area along with those listed below.)

- Signed oval portrait of Charles S. Peirce as a middle age man with long graying beard.
- Portrait of Charles S. Peirce with a harnessed white horse. The original print is badly creased down the center.
- 1976 record photographs of Peirce House conditions, taken by NPS historical architects. Seven rools, 35mm, each frame described.
- 1977 view of two Peirce House interior door locks.
- 1976 Polaroid interior views of Peirce House conditions.
- Negatives of drawing showing the "Evolution of Charles S. Peirce House, 1888-1972," by Penelope Hartshorne Batcheler.