

NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018

BRYN ATHYN HISTORIC DISTRICT

Page 1

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1. NAME OF PROPERTY

Historic Name: Bryn Athyn Historic District

Other Name/Site Number: Pitcairn Residences (Cairnwood, Cairncrest, Glencairn) and Bryn Athyn Cathedral

2. LOCATION

Street & Number: Huntingdon Pike and Cathedral Road

Not for publication: N/A

City/Town: Bryn Athyn

State: PA County: Montgomery Code: 091 Zip Code: 19009

3. CLASSIFICATION

Ownership of Property

Private: X

Public-Local: ___

Public-State: ___

Public-Federal: ___

Category of Property

Building(s):

District: X

Site:

Structure:

Object:

Number of Resources within Property

Contributing

14

7

21

Noncontributing

3 buildings

___ sites

___ structures

___ objects

3 Total

Number of Contributing Resources Previously Listed in the National Register: 6

Name of Related Multiple Property Listing:

BRYN ATHYN HISTORIC DISTRICT

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ____ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ____ meets ____ does not meet the National Register Criteria.

Signature of Certifying Official

Date

State or Federal Agency and Bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of Commenting or Other Official

Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

- Entered in the National Register
- Determined eligible for the National Register
- Determined not eligible for the National Register
- Removed from the National Register
- Other (explain):

Signature of Keeper

Date of Action

BRYN ATHYN HISTORIC DISTRICT

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

6. FUNCTION OR USE

Historic:	RELIGION DOMESTIC	Sub:	religious facility single dwelling secondary structure
Current:	RELIGION SOCIAL RECREATION & CULTURE	Sub:	religious facility meeting hall museum

7. DESCRIPTION

Architectural Classification: Late Gothic Revival
 Beaux Arts
 Romanesque Revival
 Bungalow/Craftsman

MATERIALS:

Foundation: Granite
 Walls: Granite, limestone, sandstone
 Roof: Slate, tile, Monel
 Other: Brick, concrete, Monel, copper, bronze

BRYN ATHYN HISTORIC DISTRICT**Page 4**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Summary

The Bryn Athyn Historic District comprises an exceptional and enduring essay of the American Arts and Crafts Movement embodied in three family residences of the John Pitcairn family and the Bryn Athyn Cathedral of the Swedenborgian faith, all built between 1892 and 1938. Under the Pitcairn patronage, resident artists established workshops in the medieval tradition for all arts and crafts of the building trade. The resulting architecture dominates the rural landscape of this faith-based community. The district has national significance equal to contemporaneous Arts and Crafts architecture of such noted educational family-centered institutions as George Booth's Cranbrook Academy in Bloomfield Hills, Michigan (NHL, 1989) and the individuality of Henry Chapman Mercer's Fonthill, Moravian Tile Works, and Mercer Museum in Doylestown, Pennsylvania (NHL, 1985). The use of craft shops equates with the well-known utopian commercial endeavors at the Roycroft Campus in East Aurora, New York (NHL, 1986), and Gustav Stickley's Craftsman Farms in Parsippany, New Jersey (NHL, 1990). The Bryn Athyn Historic District emerged as a unique architectural composition during a fertile period of Arts and Crafts production in America, thus embodying beliefs in the virtues of nature and natural materials and personal fulfillment through the production and appreciation of handcrafted architecture and art.

Describe Present and Historic Physical Appearance.**Site Introduction**

The Bryn Athyn Historic District lies seventeen miles north of Philadelphia within the Borough of Bryn Athyn, Lower Moreland, Montgomery County, Pennsylvania. It consists of slightly over thirty-seven acres of land formerly owned by John Pitcairn, founder of Pittsburgh Plate Glass Company and supporter of the Swedenborgian faith and an educational system derived from writings of the Swedish scientist, philosopher, and mystic Emanuel Swedenborg (1688-1772). The landscape features three family residences plus the Bryn Athyn Cathedral of the General Church of the New Jerusalem built for the residential community of Bryn Athyn that developed south of the family tract. With the exception of one contributing building, the district is bounded on the east by Huntingdon Pike (PA Route 232), on the south partly by Quarry Road, and on the west and north by a wooded fringe that borders agricultural land. Cathedral Road (formerly Paper Mill Road) transects the district going northwest from Huntingdon Pike. The topography of the district is marked by two significant hills running east to west that rise above the residential community. They became the locations for sequential construction of the buildings. The district includes thirteen contributing buildings, seven contributing structures, and three non-contributing buildings. It retains national architectural significance under Criterion 4 for the Arts and Crafts Movement methods, sensibilities, and materials used in the construction of the four major buildings and their associated outbuildings and structures designed and built between 1892 and 1938 by the Pitcairn family principally through their own workshops. The buildings are John Pitcairn's Cairnwood; Bryn Athyn Cathedral; Harold Pitcairn's Cairncrest, and Raymond Pitcairn's Glencairn. The main losses in the district are the greenhouses of Cairnwood and Cairncrest. Notably, one of the smaller contributing buildings is the original wood-frame Metal Shop, later enlarged with other shops moved to the site. This building complex represents the typical historic craft shops used in construction and contributes to the physical integrity of the district.

John Pitcairn's estate, **Cairnwood**, designed in 1892 by Carrère & Hastings, represents the Beaux-Arts tradition and is on the upper hill to the east. The two-and-a-half-story mansion with twenty-eight rooms, outbuildings, and an estate wall were all constructed of orange-spotted Roman brick and limestone, American woods and other products, and Pittsburgh Plate Glass. Philadelphia contractors and local artisans carried out the construction. In 1911, a Philadelphia firm added a chauffeur's residence, garages, and studio across the Huntingdon Pike in the same style and materials, but Raymond Pitcairn specifically designed Arts and Crafts features for his studio rooms. Cairnwood now serves conference and event space following a restoration in

BRYN ATHYN HISTORIC DISTRICT**Page 5**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

2001. **Bryn Athyn Cathedral** stands on the lower hill to the east and is a Gothic Revival church of granite and limestone initiated in 1914 on a design by Ralph Adams Cram. It was completed by 1929 with changes under the direction of Raymond Pitcairn. He engaged an international workforce in the medieval guild tradition to use local stone and timber, an especially durable metal (Monel), and various preindustrial construction methods that included the on-site manufacture of pot-metal stained glass. The Cathedral and its two added towers, halls, stone terracing, and over forty-eight stained glass windows reflect symbolism of the Swedenborgian faith and masterful individualized workmanship of the Bryn Athyn Craft Shop artisans. While the Cathedral was still under construction, local architects Weatherill P. Trout and Llewellyn R. Price designed **Cairncrest** in 1926 for son Harold, an aviator and aeronautical engineer instrumental in the development of the helicopter. Harold's residential complex stands on the lower hill north of the Cathedral and is a two-and-a-half story neo-Romanesque towered building with allied outbuildings. The exterior features traditional stone masonry with little adornment, but walls, ceilings, and floors crafted with a mixture of twentieth-century construction materials (block, tile, poured concrete, plaster) and medieval timber work, wood paneling, elegant metal work, and handmade floor and wall tiles. Surfaces are decoratively and colorfully painted or carved with birds, animals, or plant life by the Cathedral workshops in the Arts and Crafts mode. Cairncrest currently serves the administrative offices of the General Church of the New Jerusalem and its bishop with only minor alterations for institutional use.

The last residential building built was **Glencairn**, designed by Raymond and constructed between 1929 and 1938 on the hill west of Cairnwood by hand processes using the artisan workforce that built Bryn Athyn Cathedral. This massive granite multi-block Romanesque revival building and its cloister features a battered nine-story peaked roof tower visible for miles around. Blue tiled roofs add to Glencairn's distinctive appearance. Elegant and symbolic stone sculptural work adorns selected sections of the exterior. The Great Hall of the first floor interior features a triumphal wall of mosaics, castle-sized wood or metal doors, Monel hardware, hand carved woodwork and poured concrete ceiling vaults coated with ornate Celtic mosaic patterns. Both medieval French stained glass windows and those designed and produced in the Bryn Athyn Glass Shop adorn the walls. Raymond designed Glencairn to feature his collection of medieval sculpture and stained glass, thus creating a cultural and educational resource for the Bryn Athyn community. Today, Glencairn is known as Glencairn Museum to exhibit the Raymond Pitcairn medieval art collection and the Arts and Crafts construction of the building itself. It also serves as a performing and gathering space for community functions. The visions, faith, and fortunes of a prominent Pennsylvania industrialist and his two sons are now represented in an architecturally significant district of three residences and a Cathedral dating from 1892 to 1938. They exhibit unparalleled construction methods and designs, handcrafted materials, and artistic ideals representative of the Arts and Crafts Movement with full integrity.

CAIRNWOOD (1892-95) Carrère and Hastings, for John and Gertrude Pitcairn***Setting and Architectural Components***

Cairnwood is a Beaux-Arts country estate inspired by French chateaux and designed by Carrère & Hastings of New York in 1892. It was completed in 1895. The estate buildings are arranged in an L-shaped plan with the base of the "L" paralleling Huntingdon Pike. Three original buildings—a mansion, garden house, and stable (all contributing)—are spaciouly separated but interconnected by driveways, service yards, paths, and terraces behind an estate wall (a contributing structure) with four symmetrically placed and attached block houses, a pergola, and a large, central iron entrance gate. All buildings and structures are integrated by the use of the same building materials and construction detailing: Roman brick, limestone, and slate roofs. A fourth building (contributing), built of principally the same exterior materials, was added in 1911 by Duhring, Okie, & Ziegler of Philadelphia on the east side of the Pike directly across from the main entrance gates. It served as a garage,

BRYN ATHYN HISTORIC DISTRICT**Page 6**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

chauffeur's residence, and studio for son Raymond. Since the 1980s, the garage bays on the west façade have been converted to new uses and trees have been planted across the original access driveway.

The Cairnwood mansion and its balustraded terrace is located a distance up an incline from the road and the entrance gate. It faces south for vistas of a large rolling grass lawn, wooded knoll, and the Cathedral below. At the east end of the house, a walled service area connects the building to the garden house that faces west, southwest of the entrance gate. The stable stands north of the entrance gate with its rear façade creating the northern section of the wall. The main driveway enters through the gate on a western perpendicular axis to the highway and has two nodes. The first connects northward to the stable via a loop and southward to the garden house by a small circle. This circle links access to the service yard off the east side of the mansion, the garden house, and the former greenhouses. The second node becomes a large circle toward the south in front of the main wing of the mansion or to the porte cochère entrance. From this circle the drive also continues northward past Cairnwood to Glencairn. To the west the drive links with Cathedral Road (formerly Paper Mill Road) and access to Bryn Athyn Cathedral of the New Church of Jerusalem located in the knoll to the southwest. The integrity of the bucolic setting, the architectural style, and building materials of natural and American species for all four contributing buildings and the one contributing structure remain principally intact.

House***Exterior***

The Pitcairn's two-and-a-half-story estate house of twenty-eight rooms plus a chapel in the third-story turret was meant to evoke a small French chateau. The plan of the building is notable for its use of two basic rectangular wings of different depths and heights conjoined at a forty-five-degree angle around a three-story tower on the south side. The narrower and lower east wing under a gable roof lies parallel to the entrance driveway. A walled service yard extending from the wing attaches to the Garden House. The grander and higher main wing sits on the highest elevation and is angled to the south, adding visual interest by breaking the linear axis. The main wing consists of two sections: the highest western block under a hipped roof of slate and a lower and narrower section with a gambrel roof of slate and metal. The western hipped-roof end has north and south bay extensions and a protruding one-bay block to the west with an open porch.

Viewed from the south or from Huntingdon Pike across the grassy hill on which the mansion sits, the building is defined in the landscape by a raised veranda. The latter is formed by a stone wall with a cast terra cotta balustrade that parallels two-thirds of the south façade. The wall extends approximately forty-feet west of the building, enclosing a small formal garden and path system off the arcaded open porch at the west end of the building. At the east end of the mansion, the wall terminates in the second bay of the east wing. There a series of steps descend from the terrace to the lower surrounding lawn.

The architectural character and color palette of the entire complex can be attributed to three principal building materials, slate, brick, and limestone. On the hipped, gable, and gambrel roofs are gray-green Vermont roofing slate plus copper flashing (the mansion was reroofed in 2001). Facades are of orange iron-spotted Roman pressed brick combined with rusticated buff-gray Indiana limestone blocks of various sizes. Limestone is used as window, door, and arch trim, as significant quoins at all corners, and for narrow horizontal belt courses just above the height of the first floor door trim and above the second-floor window sills. The mansion, especially, features highly articulated and eclectic facades and roof lines, caused by facade projections, the arched open porch, a turret, an octagonal tower, and various window shapes. These define different interior spaces and supply external architectural interest. Additionally, though not readily perceived, all window glass used is glass supplied by Pitcairn's Pittsburgh Plate Glass Company.

The south façade of the main block, the most visible from Huntingdon Pike, is the more ornate, intricate

BRYN ATHYN HISTORIC DISTRICT**Page 7**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

elevation of the building. At the western end a one-bay extension of the hipped roof block protrudes beyond the arched porch, matching one on the north facade. Here, however, to take advantage of the view from the second floor, French-style doors open onto a small stone balcony with a decorative iron balustrade. Ornamental stone in a vertical lozenge-shaped medallion breaks the brickwork flanking the doors. Beneath the balcony French-style doors are repeated at first floor level. At second-floor level, where this extended bay connects to the central three-bay section of the south facade, a circular turret extends upward above the conventional roofline. The turret's slate roof is topped by a decorative iron finial. Behind the turret a tall chimney extends through the roof slope.

The main three-bay section of the south facade consists of three arches, along the first floor, each formed of rusticated limestone pilasters, prominent keystones, and interconnecting stonework. A horizontal band of limestone runs above the arches. At second-floor level an oval window in vertical position, heavily outlined in limestone, stands above each arch. The pilaster effect is carried upward between the oval windows by the use of large and small limestone blocks vertically placed in the brickwork. At roof level three hipped-roof dormers, finished in slate with two-over-two windows, are aligned with the oval windows. At the first floor the arched openings are finished with upper glass panes that repeat the arch in the muntin pattern. Below, French-style doors open onto the terrace in each archway.

At the east corner of the main section stands the octagonal tower that extends well above the roofline and was built for the chapel at third-floor level. Each face of the octagon at the chapel level shows an inset brick arch. Two of these contain leaded-glass lancet windows. On the south face of the tower, limestone is used to accent a set of six vertical window openings, corners, and a water table of a full story.

The south façade of the east wing, the angled smaller section of the house, has a stone water table with basement window openings to compensate for a lower grade. A special feature of this facade is an interruption in the gable roof by a steep hipped-roof section that extends over a limestone and brick bay adjoining the tower. On the inside of the house, this creates the dining room and former nursery above it. The main feature of this bay is a segmentally arched window opening outlined in limestone. On the second floor, three double-hung, two-over-two windows fill the arch. On the first floor, under a band of brick and limestone, are three tall, square-headed windows. From inside these look directly toward the steeple of the Cathedral, a purposeful sight-line.

The remaining south facade of the east wing is defined by the use of windows in two sets of pairs and a final single window bay at the east end. A single limestone band divides the first and second floors and limestone trim articulates each window as well as linking the pairs. Protruding rectangles of brickwork under the window pairs provide additional architectural interest. Two small dormers and a chimney punctuate the broad expanse of slate roof. At the southeast corner of this façade a stepped, brick wall with a gate opening extends eastward to connect to the Garden House. Behind the wall is the service yard for the mansion, the best location to view the east gable end of the building.

The east end façade of the mansion is punctuated by an oval window with a decorative muntin pattern and a limestone surround under the roof gable. At the second floor three two-over-two windows are regularly spaced and treated with limestone sills and ornamental surrounds. At the first floor, a window matching the type on the second floor exists in the third, south bay. To the north of this is a three-bay enclosed sun porch (open until the 1920s) that includes a portal with steps to the yard and two sets of multi-pane windows. Rusticated limestone block pilasters separate the windows and doorway and support three limestone arched lintels. Five windows for the basement level are only partially visible, as they are hidden by the stone wall for a stairway to the basement.

BRYN ATHYN HISTORIC DISTRICT**Page 8**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

On the north side of the mansion each of the three wings feature entrances related to their hierarchical architectural importance. The tallest, hipped-roof west wing is wrapped by a raised stone porch off the semi-circular driveway. A ramp with an iron railing has been added sympathetically at the east end. The facade is symmetrically treated with protruding extensions of one bay each, topped by hipped roofs with single dormers. In between these extensions stands a three-bay section featuring the main entrance. A broad, flattened arch in the facade, accented by rusticated limestone blocks of alternating lengths, leads to an open loggia. Here another similarly treated arch and a large double-leaf oak door with ornamental carvings are flanked by two small leaded windows with transom lights. The main entrance arch is accented at the second-floor level by a stone balcony supported at the ends by curved decorative stone brackets and a central stone cartouche. An undulating wrought iron railing with delicate scrollwork emphasizes the balcony's horizontal line. Behind the balcony, square-headed French-style doors with transom lights are surrounded by rusticated stone blocks shaped to form protruding pilasters. These support square capitals holding a stone pediment with a central circle outlined in relief. This pediment extends above the roof edge and is finished with a narrow gabled roof. Two protruding oculus windows in the main roof flank the pediment.

At the second floor level of the main block the windows are double-hung sash of three-over-three or six-over-three lights. On the first floor the windows are either French-style casements above wooden panels or French-style doors. The west end of this block repeats the arch effect to create an open porch on the first floor. One arch occurs at each end; three run across the west facade. Each is trimmed in limestone and at the tops, the stonework broadens and extends upward under the second floor windows. The window openings, outlined in stone, contain one-over-one double-hung sash with side lights. A small hipped-roof dormer, finished in slate, interrupts the face of this steeply pitched roof with double one-over-one window sash.

The lower, gable-roofed, angled east wing provides a hipped-roof porte cochère vehicular approach to the house. Here a two-leaf wooden door opens into the dining and billiard room wing. At the east juncture of the portico the facade of the building steps back about two feet. The four primary first floor windows are large arched, limestone-articulated openings with four-part casements. At the far eastern end of this wing is the main service entrance, marked by an arched opening that leads into a vestibule for the enclosed porch and access to the kitchen areas. On this wing windows at the second floor level are all small, directly under the roof eaves, and patterned independently of the first floor windows. Three evenly spaced hipped-roof dormers punctuate the gable roof.

Interior

The interior of Cairnwood typifies Beaux-Arts room treatment through architectural character and finishes reminiscent of European designs used in restrained or modern modes. Contemporary and local materials rather than imported stone or artifacts were part of the construction planning. The use of a central two-story reception hall off a transverse corridor establishes a basic pattern of the design firm, here used for the first time but incorporated in later country houses.

The main west wing with its primary entrance loggia provided the Pitcairn family with all primary living and entertaining spaces except dining room, kitchen, and billiard room. The smaller east wing, approached from the outside through a porte cochère, included the latter rooms and servants' quarters. In total, the building contains twenty-eight rooms including the kitchen and chapel. Storage rooms, bathrooms, attic and basement, utility and support spaces are additional.

From the loggia entrance one reaches a vestibule and coat closet area that leads into a central east-west hallway. At first-floor ceiling height a cornice made up of a floriated band above an egg and dart motif tops a frieze of Greek fret work. Wall panels periodically feature relief sculpture of wreaths wrapped by a gold-leafed ribbon.

BRYN ATHYN HISTORIC DISTRICT**Page 9**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

The floors throughout are all white oak with decorative inset quadrates in walnut around the perimeters. The hallway opens into a Grand Hall that rises two stories high and features two free-standing columns with Ionic capitals. These support three Roman arches with Gothic vaulting for an open balcony at the second floor. The room is rich with classic architectural ornamentation. The three large arched openings of the south wall of the grand hall illuminate the space using French-style doors that open onto the terrace. Oval windows accent the vaults above. A majestic, hooded limestone fireplace in Louis XIV style with a decorative, carved chimneypiece protrudes into the room on the west wall. The firebox and hearth are of Roman brick. Doorways into the living room to the west flank the fireplace. At the eastern end, an elegantly trimmed staircase of painted, cut, and turned balusters capped by a wide, wooden rail ascends in two runs to the second floor. Vertical, clear leaded windows with decorative comes and accents of colored glass light the landing. At the second floor on the north side of the Grand Hall a balconied hallway overlooks the grand space below.

At the western end of the first floor, two rooms lie perpendicular to the Grand Hall. Both open out on to the west veranda. To the north is the white oak paneled library. On the east wall a classically paneled fireplace and over-mantel outlined by engaged Corinthian pilasters is featured. Flanking bronze female relief panels complement the beveled fireplace surround of red marble. Open bookcases, defined by wooden pilasters with scroll and leaf ornaments and an entablature, have painted interiors above drawers and cabinets. Above the bookcases is a tray ceiling with panels outlined in decorative raised plaster roping. Windows in this room are casements (north and west) and a French-style door opens onto the west veranda.

Joining this room directly to the south, but separable by pocket doors, is the larger living room featuring natural, black walnut woodwork. The wood is used to create a deep wooden ceiling cornice, a low paneled wainscot, and door and window surrounds. Fabric covered plaster walls offset the woodwork. The fireplace is larger than in the library. It is faced with a flat surround of rose-colored marble and has a large paneled over-mantel. Doors that flank the fireplace and lead into the Grand Hall feature Renaissance-style over-doors with bands of carved leaf patterns. On the east wall an oval window with an interlacing muntin pattern looks out onto the south terrace. The west wall features two sets of transoms and French-style doors, the latter opening onto the veranda to the west.

Adjacent to the east side of the library stood the study designed for John Pitcairn. This space was converted to a stair hall in 1999 that ascends to the third floor to meet fire codes. The walnut paneled wainscot and cornice have been preserved by integrating them into the new wooden staircase.

East of the entrance loggia, a comparable space to that of Pitcairn's study (originally identified as the "Reception" room) now opens directly onto the larger Music Room. The two spaces are now decorated as one, although the floor inlays define the former separation. The Music Room features a simple fireplace on the south wall, characterized by a Sienna marble mantel surround and a full-height over-mantel mirror. The walls are treated in large raised panel quadrates above chair-rail-height panels. Periodic vertical pilaster-like panels, defined by intertwining garlands, are rhythmically placed. A decorative plaster cornice is used above the doors and at the ceiling. Pink and white wall treatments with gold highlights on ornamental plaster create a Rococo music salon.

East Wing

The east wing, set at an angle to the main block and at a lower elevation is down two steps. The transverse corridor and the octagonal tower link the two building sections. On the south side, the base of the tower incorporates the main staircase to the second floor, a lavatory, and an original passenger elevator that ascends to the third floor and down to the basement. Adjoining the tower to the east is the dining room, an asymmetrical, nearly oval space with three double-hung windows focused on the tower of the Bryn Athyn Cathedral in the

BRYN ATHYN HISTORIC DISTRICT**Page 10**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

distance. The architects made interesting use of space remaining from the juncture of the octagonal tower and rectilinear walls by creating a three-walled inglenook or room extension set on a raised marble platform. Square, fluted columns supporting a classically decorated ceiling beam emphasize the space. The central wall of the inglenook features a fireplace with a Caen stone surround in a paneled Georgian mantel and over-mantel setting. Benches with paneled fronts, under raised wooden wall paneling to the right and left of the fireplace, add further classic detailing. This paneling, running to three-quarter wall height, is repeated throughout the remaining walls of the room and at angles flanking the three windows. The wall above the paneling is plastered. The windows reach to the ceiling with ornate carvings at the top of each dividing pier as if they support the dentilated cornice and open beam ceiling. The north-south ceiling timbers are flush and narrow. The east-west beams have greater width at the top and bottom adding to the intersecting three-dimensional effect of a coffered ceiling. The door to the butler's pantry features a heavy curved pediment over-door.

Beyond the dining room are a butler's pantry and an ell-shaped corridor. A winding staircase to the second floor ascends at the west end of the corridor. Off this and the pantry are two rooms that make up the current kitchen complex. The larger room, the former kitchen, has white ceramic tile on the south and west walls. The smaller room was the servants' dining room. In 2000 both rooms were outfitted for catering purposes with stainless steel sinks, tables, and refrigerators. Off the north side of the hall is a former storage area, now converted to a bathroom, coat closet, and washroom. Entrance to the former sun porch is at the end of the hall, serving as a vestibule from the back porch entrance on the north façade.

The former billiard room is the second main room in the east wing of the house. It lies at the east end of the east transverse corridor and on the north side of the kitchen hall. Classic raised plaster moldings provide quadrates on the walls above chair-rail height.

Second Floor

On the second floor of the main wing there are five bedrooms, two dressing rooms, and two bathrooms off the east-west hallway and balcony. A former bathroom was removed in 1999 at the northwest end to accommodate the fire staircase. The door casings throughout the second floor are decorated with carved wood decorations and square-headed over-doors. Four of the seven rooms have fireplaces, each with different mantels. The largest and most architecturally interesting rooms are in the southeastern and northeastern corners. The Pitcairn's master bedroom and dressing room suite fill the entire west end. Mr. Pitcairn's dressing room in the southwest corner includes the turret with a curved window and a balcony facing the Cathedral. A fireplace with a fluted columned overmantel with an inset mirror graces the east wall. The northeastern bedroom has a fireplace, a window seat, and an adjoining bathroom that can also be accessed off the hall. This is currently often used as the bride's room.

The east wing contains five smaller bedrooms for the staff plus the former Nursery and Nanny's Room. The bathroom is at the east end of the hall. The Nursery features a fireplace and a small staircase that connects directly to the landing off the main stairs from the Grand Hall. Pocket doors in the east wall open to the Nanny's Room or sewing room, now used most often as the groom's room.

Third Floor

The third or attic level of the house has two significant spaces: a large playroom and the chapel. Many storage areas and closets, a former darkroom, an abandoned bathroom, and unfinished sections remain. The large finished central room in the main section of the house, with three gable windows on the south side and two bull's eye windows on the north, was first used as a children's playroom. Later this became a storeroom for full-scale casts and molds used for the construction of the Cathedral. Off this space at the west end of the main block there is principally unfinished attic space now being used for the air handling systems introduced in 1999.

BRYN ATHYN HISTORIC DISTRICT**Page 11**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Two previous wood-framed room spaces were removed to accommodate the ductwork and fans.

The chapel entry, off the third floor hall with the elevator, is through a rounded vestibule created by two Doric columns supporting exposed wooden beams. The chapel is finished entirely of panels of natural California redwood. The plaster ceiling is finished in blue with gold finish on the eight ribs. Two decorative leaded-glass lancet windows to the southeast and southwest, with accents of colored glass, provide the light for the space.

Garden House (built 1895; restored and renovated for use as the Pitcairn Archives 1989)

Directly east of the mansion, and serving as the end wall of the walled service yard, stands a one-story, hipped-roof building with a central chimney and an eyebrow dormer on each roof. The building mimics the mansion in materials and detailing but is built on a rubble stone foundation. The Garden House originally had a dual purpose: the north half contained a tool room and plant room under which is a basement space that contained the estate's heating system. The south half had a play room on the east side and an open porch on the west that was created by an arched door opening and three large arches springing from limestone sills at waist height, two on the west facade and one on the south. The south façade also has three square-headed windows of different dimensions to the east and a window at cellar level. In 1989, rehabilitation of the building for use as the John Pitcairn Archives was completed and this enclosed the porch. On the western façade multi-pane windows fill the arches and the doorway; the south arch has clear glass.

The north façade of the Garden House off the entrance driveway is now the main entrance to the building and the Pitcairn Archive. Steps lead to a large square-headed portal at the east corner where there is a small porch. The portal is trimmed in limestone as is a window to the west and a wall opening for a view into the garden to the east. A door in the west wall goes into the former garden tool room, now an administrative office. A door in the south porch wall enters the plant room, now a display and shop area with a small added bathroom. From here one enters the Archive, which encompasses the enclosed porch and the former playroom with its large fireplace. During the building of the Cathedral and Glencairn, the Garden House was used to lay out the stained glass windows for the church and Glencairn and later for glass and window storage. At times, the fireplace in the playroom area that remains extant served industrial purposes.

On the outside, the east facade of the Garden House confirms the divided use of the interior space through the central chimney and an adjustment to the slope of the land with a higher stone foundation wall. A photograph from the early 1920s provides some evidence of the building's former splendor. The southern half of the building (Playroom and later Archives) features a large multi-pane window flanked by two narrower ones and an off-center doorway, all trimmed in limestone. A stone staircase descends from the door. The northern plant room section contains one large window, a small half-moon window in the roof above, and the north porch opening (formerly a staircase, but closed to waist height at removal of the green houses). This east façade served as the back drop for Mrs. Pitcairn's garden that ran to the estate wall to the east. Terracing was articulated by dry-laid stonewalls running north to south and covered with grass or plantings. Steps through the wall went into the lower garden area. By 1897 at the far north side of the garden, Lord & Burnham Company had designed three glass-roofed greenhouses running from the east to the west. They were finished with Pittsburgh plate glass. The exterior was stepped to follow the declining contour of the land and linked to the square, pyramidal-roofed building in the main estate wall at the end of the pergola and terrace. The greenhouses were removed in the 1920s, but the north wall of the complex still stands and defines the garden area off the driveway. Gradually the garden became neglected, the paths overgrown, the walls exposed, and the pergola cross beams lost. Currently, air conditioning condensers for the Archive sit in the garden close to the house.

BRYN ATHYN HISTORIC DISTRICT**Page 12**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Stable, Carriage House, and Coachman's Quarters (1895)

The stable, carriage house, and coachman's quarters or caretaker's residence makes use of the same architectural materials and characteristics as the mansion and Garden House but is readily identified by its ventilating cupolas. It establishes the northern end of the property along Huntingdon Pike. The two-and-a-half story building was symmetrically designed as a long rectangle with a hipped roof to house stables to the north, carriages south of a central drive-through arched carriageway, and a residence at the south end adjoining the main gate to the property. At both ends of the building are the small one-story blockhouses with pyramidal roofs that define the estate wall. The one-story block at the north end served as a horse paddock, surrounded by a manure pit and a walled yard. This remains intact but is used for storage. The block at the south end is part of the residence. The building possesses high integrity both inside and out.

The west façade is dominated by the arched carriageway that rises nearly the height of the façade and is finished in rusticated limestone blocks. North and south of the arch the roof holds two octagonal ventilator cupolas with Venetian slating, peaked roofs, and ball finials. Hipped-roof dormers are aligned under each cupola with a third and fourth dormer in the end quadrants. Limestone trim that extends decoratively into the face of the facade particularly distinguishes the south dormer under the cupola. Fenestration is irregular in size and number of lights and placed asymmetrically on both the east and west facades to serve for interior light and function. The residence at the south end has an open loggia or porch, created by a square-headed limestone doorway on the south facade and two arched and limestone trimmed openings on the west side.

The interior of the stable clearly defines its multi-use design. The north end houses five spacious wooden stalls along the east wall off a wide corridor. Two large sliding wooden doors in the wall at the end of the corridor lead to the carriageway. White plastered wall and ceiling finishes contrast with natural wooden posts, ceiling beams, cross-buck doors, and tongue-and-groove boarding. On the west side are three milking stalls and a staircase to the second floor.

The central carriageway of the building is distinguished by closed, double wooden pocket doors in the arches of both the east and west facades. Within the top of the doors are multiple small window panes. The carriageway itself is finished as an exterior façade with brick and limestone block. Midway the walls of both the north and south sides are punctuated with large sliding batten doors with cross-braced sections for access of horses to the north stable or carriages to the south carriage house. The carriage house is a spacious plastered room with open beam ceiling and exposed floorboards above, all painted white. Windows open to the carriageway for light as well as the east and west facades. The space now houses historic carriages from the Pitcairn family. The carriage room shares a wall with the two-story residence at the south end of the building. The first floor of the residence has a kitchen and main hall with a link to the parlor in the neighboring one-story block. Hipped-roof dormers that transect the roofline on the west and south sides light two bedrooms on the second floor. This residential section of the building connects directly to the main gate and retains the symmetry of the design.

Over the northern two-thirds of the stable at the second floor level the timber-frame system of four trusses per section is fully open and visible. The bottom chords of the trusses are of four pinned joists, each of which is 2.5 x 12 inches. Over the carriageway hanging trusses are used. The framing system of the trusses and roof timbers create an impressive expanse of timber. Over the carriage way remains the trap door in the floor, and the pulley and winch system, through which carriages could be hoisted for storage above the carriage room. Here also a trolley system can be seen, used to transport hay into the north section of the stable for use in the stalls below.

Garage, Chauffeur's Residence, and Studio (1911)

To keep a pace with the development of the automobile, in 1910 the Pitcairns engaged Duhring, Okie, &

BRYN ATHYN HISTORIC DISTRICT**Page 13**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Ziegler (1899-1914) to design a two-story building for a chauffeur's residence, garages, and second floor studio across from the main entrance gate to Cairnwood on the east side of Huntingdon Pike. The architects blended the building into the Carrère & Hastings' complex by using nearly the same construction materials. The studio's interior was completed with strong input from Raymond, providing his first attempt at architectural design with Arts and Crafts features.

On the west façade the rooflines and fenestration of the building identify a two-story structure with a hipped slate roof with deep flared eaves. A large brick chimney breaks the roof peak at the south end. This entire end was Raymond's studio area. The middle of the building was for garages, the north end the chauffeur's residence. Three hipped-roof dormers with casement windows of different sizes are centered in the middle of the roof. At each end they are flanked by hipped roof bays that extend forward from the main façade. Within each bay is a hipped roof dormer with casement windows that break the roof line. The casements at the south end are multi-light leaded glass adding character to Raymond's studio. On the first floor these bays have different sized windows outlined in rusticated limestone. Under the three center dormer windows are three segmentally arched openings built originally for vehicle entry. The original sets of double-leaf doors were removed in the 1980s and new in-fill construction of either window sash or flush doors and masonry have been added. The masonry detail of the arches present a new design. Instead of irregular sized rusticated limestone blocks to form a surround, it is made up of sections of incised or cast flat masonry trim alternating with wider rusticated limestone blocks or keystone units that stand proud of the trim and appear "applied." While the Roman brick work of this building basically replicates that used by Carrère & Hastings, this alternate feature clearly ascribes the construction to a later period.

The chauffeur's residence at the end of the building retains more consistent muntin patterns in windows on both floors. A side entrance porch is defined by a separate arched masonry opening. A three-bay extension runs east off the main block and attaches to a one-story hipped-roof garage at a lower elevation. The extant double-leaf wood paneled doors with upper glass panes provide evidence for the type probably used at the other arched garage openings along the Pike.

The east façade of this building has various gable-roofed dormers and in the middle roof section a large window occurs at the attic level. At the southern end of the building is a large arched entranceway with multiple sidelights the height of the door, all protected under a shed roof of slate shingles. Five steps approach this door and a small veranda from a path through the garden. A contemporary, pressure-treated wooden deck and railing at second-floor level above this main entrance detracts from the original design.

On the interior the residential chauffeur's wing at the north end retains its original purpose and usage on both floors. The middle first floor spaces for vehicles and mechanical repairs, however, were converted to lounge areas for students. These former garage spaces now have dropped ceilings and modified doors and windows. The more southerly section retains industrial character due to exposed timbers, piping, and ironwork in the ceilings. This space is outfitted with kitchen cabinets and equipment. Behind it is a large room now treated as a vestibule for the wide arched doorway in the rear façade. The opening presumably accommodated large machines.

In the south gable end of the building from the second floor to the roof is Raymond Pitcairn's studio. It is reached from a staircase at the southwest corner of the building. The main room features open timber framing to the roof ridge, a large stone fireplace with exposed chimney stack, and a wooden balcony cantilevered from the chimney at attic floor level. This rustic design using natural materials in a craftsman style establishes a dramatic environment for entertainment and gatherings. To the west off this room is a small room, lit by both the leaded casement windows of the west façade dormer and potential light and warmth from a corner fireplace.

BRYN ATHYN HISTORIC DISTRICT

United States Department of the Interior, National Park Service

Page 14

National Register of Historic Places Registration Form

A door adjoining the fireplace leads to a central second floor hallway off which there are small rooms and bathrooms. A staircase against the north wall to the attic level provides access to other spaces, the balcony, and a large room under the rafters that is lit by a clerestory window in the east roof.

Wall, Entrance Gate, Block Houses, and Pergola (ca. 1895)

The built structures of Cairnwood are defined from Huntingdon Pike by a wall constructed of a stone foundation, a band of rusticated limestone, Roman brick, and a capping of limestone. The wall integrates with various larger components. At the center stands a distinctive and welcoming masonry and wrought iron entrance gate for the driveway into the property. Each side consists of four sections: the masonry gate posts, the gates, a sloping, curved wall section with an arched portal and wrought iron gate for pedestrians, and a short pillar in brick and limestone attached to a section of brick wall that continues to the blockhouse. The main gate posts have rusticated limestone on the bottom half and limestone quoins and brick in the upper portion. Beneath smooth limestone capping and a cornice "CAIRNWOOD" has been incised in the frieze. The wrought iron gates consist principally of vertical members and paired horizontal bars at the top and bottom. They swing from more decorative stationery fencing attached to the masonry. The fencing includes square wrought iron posts that are topped by lanterns.

Integrated symmetrically into the wall are also one-story, square, pyramid-roofed blockhouses both at the north and south ends and flanking the entrance gate. These structures, with protruding roof overhangs and limestone trimmed windows and corners, act as anchors for the wall and add architectural interest, dimension, and function. Between the two blockhouses south of the gate the wall has regularly spaced two-foot high brick posts capped with limestone that served as supports for the main beam and cross-members of a pergola. A section of the main wooden beam is missing. In symmetry, to the north of the gate, stands a matching third blockhouse. It connects directly to the two-and-a-half-story stable and carriage house complex. Here it serves as part of the coachman's residence located at the south end of the stable. The east wall of the stable complex defines the estate along the highway. The main break in the stable façade is the central arched carriageway with closed wooden doors. Terminating the wall at the north end is a fourth blockhouse that on the west side of the wall defines a paddock area now used for storage.

On the west side of the south garden wall are further remnants of the pergola and the former garden terrace. They run south from the south side of the blockhouse that anchored the former greenhouses and consist of four square brick and limestone capped support columns and a paved path that ran under the pergola. Only one section of the western pergola support beam remains at the north end. The terrace itself appears as fragments of masonry in the ground between the wall and the columns for the pergola. Most is overgrown with grass. The blockhouses have more distinctive qualities. The northern unit has full walls plus a wall extension on the west facade that continues above the roof eave for the former greenhouse. An arch-headed doorway with architectural detail occurs in the west façade, and a less articulated portal remains in the south façade. The southern blockhouse was designed to serve as a belvedere. It has a fully open north side to allow access from the terrace. The east wall is part of the estate wall, but the south and west walls have rectangular openings above waist-high brick walling finished with a limestone sill.

Integrity of the Cairnwood Complex

The physical integrity of the Cairnwood complex is extremely high and the Pitcairn Archives maintain the drawings, building specifications, and account papers that document its construction. Within the overall complex, the major losses are the three greenhouses, the pergola framing and terracing, and garden plantings. Although the Garden House was converted to a craft studio for the production of the stained glass windows for the Cathedral about 1914, most impact from that use was reversed in 1989 during its rehabilitation as an

BRYN ATHYN HISTORIC DISTRICT**Page 15**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Archive for the Pitcairn papers and collections. With the exception of windows added to former open porch arches, a few changes to door entries, and renewed finishes, the basic building has been returned to its 1895 configuration. The Stable and Coachman's Quarters is a fine example of a nearly unaltered outbuilding from this era with intact timber framing and built-in mechanical systems for hay and carriage transport.

The mansion served as a residence for various members of the Pitcairn family until 1980. No major structural occurred under the family's ownership, although some interior attic wall partitions were added by Raymond Pitcairn and the east service porch was enclosed. The elevator was modernized in the 1920s and has recently been put back into working order. Bathrooms were modernized in the 1950s (with the exception of fixtures in an abandoned attic lavatory), electrical fixtures were upgraded, and a fireplace on the second floor was altered. With the exception of one wall in the Reception Room, most of the original walls, floors, architectural ornamentation, cornices, and fireplaces and mantels are intact throughout the house, and original woodwork remains in fine condition.

Between 1998 and 2000, in order to adapt the building to a hospitality center for various private and public uses, selective rehabilitation took place and all mechanical systems were overhauled or newly installed. The original slate roof, flashing, and central standing seam metal roof over the main block were all completely restored. The masonry was cleaned and all windows were repaired and restored to make them fully functional. Painting of interior finishes on both floors was completed following paint seriation studies. The kitchen was rehabilitated to accommodate catering needs. The most significant change was the addition of a new fire exit stairway from the first through the third floors in the main wing. This affected the space that was John Pitcairn's study and eliminated a former second floor bathroom. Glass fire doors were also added in the second floor hall. A new limestone and concrete ADA ramp to the main entrance provides easy access to the east side of the north porch.

BRYN ATHYN CATHEDRAL COMPLEX (1914-29)***Setting***

Bryn Athyn Cathedral looms as an architectural wonder in a suburban community just miles from the Philadelphia border on the grassy plateau of a hill below Cairnwood and Glencairn. It overlooks the Bryn Athyn residential community from a platform articulated by stone ramparts and walls where the west end of the hill falls away. Its site lies west of Huntingdon Pike across from the Academy of the New Church complex, south of Cathedral Road, and north of Quarry Road. Following religious tradition, the apse of the Cathedral's cruciform pattern faces east, which aligns the building perpendicular to Huntingdon Pike as it transects Bryn Athyn. The grand, spreading Gothic- and Romanesque-revival architectural complex on the north side of the Cathedral includes the Michael Tower, Choir Hall, and Vestry. To the southeast is the Ezekiel Tower and large Council Chamber. The latter are built at a lower grade level. At the northwest end of the site a large parking lot angles off Cathedral Road and terminates at the west hillside with stone walls. At the northwest corner of the parking lot a driveway leads steeply down hill to both old and new Cathedral workshops. To the east the parking lot links to a driveway that goes through the port cochère for the Cathedral vestibule attached to the Michael Tower. Low stone walls along the south side of the parking area transition to green lawns and blue stone paving to the granite pavers at the Cathedral's west porch. At the west terminus to the plateau, beautifully tooled stone walls, articulated flower beds, steps, and benches for gazing over the valley down to Pennypack Creek are built into the hillside. The stone wall continues along the south side of the Cathedral, creating a platform in the steep hillside down to Quarry Road. Granite paving continues around the Cathedral's chapel, which is built onto the south transept. Steps and a staircase from the upper level go to a lower grade from which the Ezekiel Tower and Council Chamber rise. A blue stone walk surrounds the tower base and goes along the south façade of the Undercroft of the Council Chamber. The paving ends at a stone wall with steps up to a driveway in front of the east end of the Undercroft. The paving on the east side of, the Ezekiel Tower and through it is stone. Stone walls with steps retain another slope at the southeast corner of the Cathedral. In the

BRYN ATHYN HISTORIC DISTRICT**Page 16**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

green lawn directly east of the Cathedral's apse is a large semi-circular stone bench for viewing the Cathedral and neighboring flower beds. Trees provide a buffer against the highway to the east. A three-section asphalt parking lot on the north side of Cathedral Road services extra parking for the church near Huntingdon Pike. Only the most western section is in the district.

Architectural Overview

Viewed from the south, the Cathedral stands out in the hillside with its tall, square, two-bay, battered and pinnacled Gothic tower ascending from the crossing of the transept and nave. Distinctive features are a contrast between the darker stone of the facades and the decorative limestone window and door surrounds; the glimmering of the Monel standing-seam metal roof; the overall ornateness of the highly articulated, buttressed masonry walls and pinnacled corners; the punctuations of the five pointed Gothic clerestory windows with elaborate tracery; the ornate south portal and tall lancet windows of the transept above the lower chapel. To the east in contrast rises the more medieval gable roofed Ezekiel Tower with two open bays in its upper third section. Unique here are granite roof tiles and corner buttresses that reach nearly to the roof cornice. Adjoining the tower is the tall, massive, steeply roofed Council Chamber with a ground level Undercroft, all crafted in a neo-Romanesque manner of solid, less decorated stone.

The expanse of the Cathedral complex creates a different type of grandeur in a flat green lawn when one views it looking westward from Huntingdon Pike. At the center stands the Cathedral with its square tower of two open bays and sky-piercing corner pinnacles dominating over the telescoping gable roofs of the eastward-extending chancel and sanctuary. The delicate flamboyance of the church's Gothic ornamentation and fenestration causes the Cathedral to hold precedence over its subordinate wings. To the far south one sees the bulls-eye punctuated gable end of the tall, two-story Council Chamber finished with a steep gable roof of blue Vermont slate. Three slightly peaked windows mark the second floor. The first floor is barely visible where the elevation changes. Immediately adjoining on the north side is the four-level Ezekiel Tower with a matching gable roof over a bulls-eye pierced gable-end peak. Crenelations and detailed sculptures at the cornice articulate the roof. Directly below on all sides in the belfry space are paired open molded Gothic windows, creating a transparency that matches the Cathedral tower. At the next lower level shorter and thinner windows are implied, but filled with stone. They stand over an inset unit consisting of a wheel-like window above three arched ones. The Ezekiel Tower's lowest level is an open neo-Romanesque, stepped-back archway. This allows passage through the tower and a grade-level entrance into the Council Chamber on the north side via paneled round-headed doors featuring upper bottle-glass panes.

North of the Cathedral, however, the character of the adjoining Choir Hall, Choir Vestry (now a Book Shop), and Michael Tower convey a different transitional medieval style. These building sections were the last added to the church and dedicated in 1929. The Choir Hall becomes a basilica extension of the transept at about two-thirds the height and uses a standing-seam Monel roof. The clerestory window bays are defined by three piers of stonework with decorative caps. The window arches are barely peaked and filled with square-paned leaded glass. At first-floor level the windows are paired lancets with a decorative column between them. At the north end a gable-roof perpendicular block extends eastward, parallel to the church. This is the Choir Vestry with an east façade that retains a medieval look in contrast to the Cathedral. The wall is solid stone with the exception of a trio of Romanesque inspired windows under the gable peak, a narrow recessed arch in the north corner bay, and an arched doorway below. The north side is divided into thirds with stone piers. The second story features large round headed windows; the first story has trios of arched fenestration.

The square Michael Tower stands north of the Choir Vestry as a short, bulky medieval tower relegated to the height of the Cathedral transept and with a hipped metal roof. This tower is characterized on the east facades by buttressed corners and a central hexagonal window that is repeated in three smaller windows as a frieze

BRYN ATHYN HISTORIC DISTRICT**Page 17**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

below the roofline. The main entrance features a large sculpted arch with a slight peak that is supported by columns with capitals of sculpted beasts of the Apocalypse. A stone tympanum under the arch sits on a heavy, beautifully shaped lintel for square-headed doors crafted of three metals, copper, silver, and Monel. Attached to the northwest corner of the Michael Tower is a two-story porte cochère and Vestibule. The porte cochère extends across a driveway with a large slightly peaked archway and a pair of small rounded windows at second-story level.

When this northern section of the complex is viewed from the west looking directly east, other variations in the basic building sections can be noted. The porte cochère actually extends off the Vestibule built onto the west side of the Michael Tower. The south façade of the Vestibule connects to the north end of the Choir Hall, whose west façade become an open Cloister Arcade attached to the Cathedral. Five Gothic arches and four sculpted figures on buttressed pedestals characterize this unit. The figures are the only ones in the complex and represent four of the twelve tribal leaders of Israel as cited in Revelations.

The west façade of the Cathedral features an open porch of three Gothic arches with decorative pinnacles that rise from each of the piers. An elegant stone balustrade of trefoils decorates the edge of the flat roof. The large west window of stained glass nearly fills the west façade of the narthex and uses four stone mullions from which springs tracery in the shape of two ovals that support a circle. On the southern side of the Cathedral the west side of the south portal extension is visible and the west façade and entry of the flat-roofed chapel built against the transept.

South of the chapel the upper west facade of the massive Ezekiel Tower stands out against the sky. On this façade at the northwest corner the peaked-roof, four-sided stair tower substitutes for buttressing. Lancet windows pierce each level of the stairway. Other upper story architectural features duplicate the east façade, but in close-up the most impressive window configuration occurs at the first floor level. Here, inset into the façade is a round arch springing from columns standing on a banded sill. Below the arch is a large wheel-like stained-glass window. At the sill level are three lancet windows articulated by columns with carved capitals. (This configuration is matched in the north facade as well). On the west side the ground story and the Council Chamber and its Undercroft can only be reached by taking a staircase down from the Cathedral terrace to a lower patio. Here, from the south side of the tower is an exterior, roofed staircase with lancet windows that leads to the Undercroft of the Council Chamber. Features of the Council Chamber's west façade are a large circular window with geometric tracery in the gable peak and two indented arches in the masonry between two buttresses. This pattern continues on the south façade of the Council Chamber except at the first-floor level. Here there are three triple arched windows created by double-depth columns. Each features geometric sculpting and intricate capitals. The cornice of the Council Chamber features sculpted heads depicting all races of man and on the south facade the seals of the New Church. The first floor east façade includes a pair of large neo-Romanesque doorways into the Undercroft.

Bryn Athyn Cathedral (1914-29) Ralph Adams Cram and Raymond Pitcairn, architects

The Bryn Athyn Cathedral complex stands prominently on a flat plateau below the hillside perch of the monolithic stone mass of Glencairn and the decorative Beaux-Arts limestone and orange brickwork of Cairnwood. The first impression of Bryn Athyn is homogeneity of stone construction with the Gothic architecture of the Cathedral looming as the central feature in the spreading complex. But on closer observation it is the organic growth of the adjoining ecclesiastical buildings in an asymmetrical pattern of more medieval styling and different architectural elements that add to the mystery and uniqueness of the unit. All this was achieved by the motivation, design work, materials, and construction methods used by John and Raymond Pitcairn to produce a Cathedral built by hand with the architectural sincerity and devotion attributed to that of builders of medieval churches. The Pitcairn's architectural goals were driven by faith, symbolism, and

BRYN ATHYN HISTORIC DISTRICT**Page 18**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

international craftsmen who in the early twentieth century used medieval construction technology and often modern science to recreate the old or achieve new materials for hand crafting. The final product was accomplished by local oversight of the design and construction after noted architect Ralph Adams Cram laid down the initial Cathedral designs in 1913 for Bishop W. F. Pendleton. Rather than follow the strict architectural designs of a professional architect, the Pitcairns chose to bring schools of craftsmen to the site to produce the building blocks from local or specifically acquired materials. The timber, stone, metal, and glass were crafted at the site in specially built workshops to serve the special needs. Patterns or designs were tested, modeled, or built in place until they achieved the Pitcairn goals for a Cathedral symbolic of the Swedenborgian faith. The whole is a landmark architectural feat unrivaled in the United States in the twentieth-century in scope, economy, and architecture. The integrity of the complex has been unchallenged, with repairs and maintenance purposely consistent with the original materials and craftsmanship.

On June 19, 1914, a significant day of commemoration identified by Swedenborg in the history of the New Church, the cornerstone of Bryn Athyn Cathedral was laid at the southeast base of the tower. It was purposely left incomplete. Ralph Adams Cram of Boston remained the architect of record, but the Pitcairns' interaction in the design process, requesting revisions and new models, eventually alienated Cram until his contract was terminated in 1917. Architects from Cram's office, Donald Robb and Robert Tappan, were directly involved at the Bryn Athyn site, however, and worked with Pitcairn's design alterations to Cram's original inceptions. At Pitcairn's request, Cram had helped incorporate specific asymmetries in the design, such as a twelve-inch incline of the nave floor to the chancel and unequal spacing of the nave arcade. Cram had suggested the use of a medieval guild system to achieve the stained glass windows, and through Pitcairn, this concept became a reality involving all crafts: masonry, carpentry, metal, and glass. Raymond Pitcairn's objective was a Cathedral design that could evolve organically, allow him input into the design process, and provide opportunities for the craftsmen to show their skills. He sought flexibility beyond construction documents but needed someone who could oversee the different workshops and Cathedral construction. Edwin T. Asplundh, an engineer from the General Church congregation, offered his services and maintained the integrity of construction and performance of the workforce until called to the First World War in 1917. The construction derived from archaic methods using natural or special man-made materials and additional "refinements" or asymmetries that Pitcairn was able to incorporate in the design after 1915 when the walls were underway. These are known as "curves in plan" allowing the walls to bend slightly, and "bends in elevation of the horizontals" and "bends in the plan of the façade," all traits of medieval Cathedral construction documented as intentional in 1915 and eagerly incorporated by Pitcairn.¹

Stone Construction

To fulfill symbolism and objectives of the Swedenborgian faith, materials used for the construction were to derive from nature and be handcrafted by man. Opening a local quarry on the hillside above Pennypack Creek provided hand-quarried gray granite often striated with pink and green hues. From this quarry came the entire exterior masonry of the Cathedral, dragged by teams of horses to the site and worked by more than seventy-four different masons. Although extremely hard, the gneiss proved functional for cut stone capitals, bases and moldings in the hands of expert stone cutters and was often used on the interior for such details. A different stone, Mohegan granite, was imported from New York State for steps and to serve for the pillars that support the main tower.

¹ In 1915, William Goodyear of the Brooklyn Museum, New York, presented a lecture in Philadelphia on these medieval construction "refinements" as intentional diversions from the symmetrical. Pitcairn attended this event and was inspired to use such refinements in his church. Goodyear's article on the subject was published in October 1918 in the *Brooklyn Museum Quarterly*, and took the opportunity there to comment on the fact that the Bryn Athyn Cathedral used these techniques architecturally for the first time in 400 years. The variable apexes of the window arches of the south clerestory wall present an example when looking west. E. Bruce Glenn, *Bryn Athyn Cathedral, the Building of a Church* (Bryn Athyn: Bryn Athyn Church of the New Jerusalem, 1971), 60-62.

BRYN ATHYN HISTORIC DISTRICT**Page 19**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

In contrast to the gray stone walls, trim selected was an oolitic limestone, shipped in from Bowling Green, Kentucky. This whitens as it ages rather than turning dark, a change typical of most other limestones. In the stone shop the masons and carvers worked the stone blocks for their different purposes ranging from walls to tracery and pinnacles, the latter decorated by leafs, flowers, bands, and pointed tips that eventually soared into the sky. Often rough hewn stone was carved in place high on a tower to end as a delicate animal or bird head by skilled craftsmen. Granite from Plymouth, Massachusetts, was chosen for the later Council Chamber and Ezekiel Tower on the south side of the Cathedral, adding another rich color to the complex.

Wood Construction

Upon viewing Cram's original designs for a solid, but decorated roof for the church, Raymond questioned the possibility of an open timber-frame construction. The answer was that if strong timbers to span the nave and chancel could be found and additionally rafters, struts, purlins, and arches could be crafted with appropriate strength and aesthetic designs, such a roof was feasible. In 1913, the Pitcairns and congregation took to the surrounding forests to identify the large white oaks that could be felled for their use. A local sawmill owner on Neshaminy Creek became the purveyor. Many land owners offered their trees for the construction. The largest tree felled was six feet in diameter at the base; the oldest was 347 years of age in 1916. After being roughly squared at the mill, trees were brought to Bryn Athyn for seasoning in preparation for the real work. Architects Robb and Tappan devised a single cambered tie-beam construction that went through extensive review with models before Pitcairn was satisfied. For each truss, the sizing, cutting, adzing, carving and mortise and tenon construction were mastered by gifted carpenters in a large shop before the timber work was hoisted in place. No truss was the same in dimension due to the wall "refinements." Inset panels with decorative quatrefoils and tracery were later added to each truss, and bands of flowers were carved at the top of each tie beam to create a magnificent whole. Finer work such as doors, pews, and other interior furnishings of the church were equally treated with handcrafted details using all varieties of elegant woods in natural finishes.

Glass Production

The glass shop at Bryn Athyn was perhaps the most innovative and radical undertaking. The Pitcairns were the leading plate glass manufacturers of the time, but they desired to recreate the long-lost process of making twelfth- and thirteenth-century medieval stained glass to achieve in their Cathedral what they considered the highest symbolic art of Christianity. Research, translations, planning, travels to France, purchasing remnant medieval windows for study, and seeking the craftsmen skilled in the science and trade took years while the Cathedral was under construction. Experiments with pot metal glass to achieve the best formulas from oxides for the striated ruby and cobalt blue was the biggest challenge. From 1916-22, a Swedish glassmaker, John Larson, undertook the task, finally moving to Bryn Athyn from Long Island with another glass blower, David Smith. Ariel Gunther, a local teenager, became their apprentice. The glass blowing shop was east of Huntingdon Pike, and there all the glass for the Cathedral was hand blown, with the self-trained Gunther eventually perfecting Larson's formulas. Design and final production took place in the Garden House of Cairnwood, annexed for glass storage, window designers, over painting of details, and final layout with lead comes. The window design process began in 1914 and was the work of many gifted artists, the principle ones being Winfred Hyatt who designed the most windows and Lawrence Saint, who in eleven years finished six windows. The windows produced represent three basic types: large scale windows with representative figures; medallions depicting biblical events; and ornamental windows, principally of a pearl-gray glass, colored medallions, and painted grisaille lines in black.

Metal Shop

The arts metal shop was established in 1915 with a forge in a small frame building that remains on the hillside northwest of the Cathedral embedded between building segments that have been moved and attached to the

BRYN ATHYN HISTORIC DISTRICT**Page 20**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

original. Pitcairn founded it to produce hardware, grilles, screens, and other ornamental work in a long-sustaining non-corrosive metal for Cathedral construction. The metal Pitcairn selected was Monel, a natural alloy of nickel (sixty-seven percent), copper (twenty-eight percent), and trace minerals found in Nova Scotia (five percent). It is malleable by hammering, welded with acetylene, and tougher than iron to work. Monel does not rust, but oxidizes in the elements into a soft gray-green patina. Constant use causes it to shine like a bright nickel. It had been used successfully in contemporaneous buildings of the time and Pitcairn concluded it was the best metal for the main roof of the Cathedral. His first artisan was Parke E. Edwards, who achieved the elegant screen of scroll designs with ornamental flowers between the nave and the chapel. Monel became the metal of choice throughout the Bryn Athyn Historic District (except Cairnwood) and appears on roofs, window frames, doors, railings, balustrades, light fixtures, horizontal bars for the stained glass windows, and other uses.

Of the collection of shops once located on the grounds around the Cathedral complex, only one remains. It is located west of the Cathedral and was known as the “**Metal Shop**” at the time of construction.² The extant frame building, raised up on stone piers and sheathed with vertical boarding, remains with a small forge located within. It is presently the northeast portion of a larger, L-shaped building that is a conglomerate of at least four other wooden shops moved to the site. They sit among a sea of stone remnants discarded during construction. As a site nationally significant for its place within the American Arts and Crafts Movement, the Metal Shop and its appendages are rare and invaluable survivors, vital to understanding the methods used to execute the buildings and their fittings at Bryn Athyn. Their comparatively humble presence against the backdrop of the Cathedral and Pitcairn residences are a clear reminder that the Arts and Crafts philosophy present at Bryn Athyn valued the design and production process as much as the product.

Exterior Church Details

The whole of the Cathedral in mass, scale, proportion and detail, stems from all its parts and is characterized by the distinctive individualism that could be achieved by craftsman preparing masonry, wood, metal and glass at the site from their own spirited designs to achieve an ecclesiastical house of worship. On the exterior of the Cathedral two particular features stand out with architectural distinction: the tower itself and the west window and portal.

Tower

The 168 foot tower, which went through many designs and models and was finally constructed from 1918-19, features five distinctive horizontal sections and has battered sides to add elegance to its vertical lines. It is finished at the top with four grand corner pinnacles with regular protruding crockets plus a central shorter pinnacle. They are linked by the crenelated parapet of arches and quatrefoils and at each corner a gargoyle of a winged eagle nearly in flight. Beneath the cornice is a beautifully lettered inscription plus decorative sculpting and an animal head centered on each side. All symbolize important aspects of the Swedenborgian faith, represent the freedom of expression and skill of the individual craftsmen who wrought them, and without machine-age production represent harmony and synthesis. The main feature of the tower remains the unglazed, paired Gothic windows with slim mullions and tracery that achieve a lightness and transparency to the mass. Angled masonry balconies punctuated by trefoils and lancet windows are below.

West Portal and Door

² Glenn, *Bryn Athyn Cathedral*, 83 and 88. The picture on page 83 is undated, but the shop stands as a rectangular building of only two sections similar to the footprint on the 1933 Sanborn Fire Insurance Company map, by that time labeled “office.” The building is not visible in the aerial site photo on page 88 dated 1924, but a larger photograph in the Choir Hall of the church shows the same construction progress on the Ezekiel Tower and also confirms the location of this shop, though with a third wing. These shops were clearly altered regularly to serve artisan or construction needs.

BRYN ATHYN HISTORIC DISTRICT**Page 21**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

When looking east at the west end of the Cathedral the magnificent west window shows off its four narrow limestone mullions and intricate tracery at the peak. It lies perfectly balanced above the three portals of the pinnacled and balustraded porch and below the roof peak and pinnacles of the nave as they align with the crenelations and pinnacles of the tower. The west porch, designed by Winfield Hyatt, glass designer, also includes a refinement of “bend in elevation.” The façade of three arches actually has a forward lean. The vaulted porch features the grand west portal and tympanum of glass and Monel metal. The door and tympanum exemplify an addition to the church completed in 1997 by Al Walter based on earlier design work plus instructions from Pitcairn to remake the door of glass. The decorative tympanum and inscription in Monel features a crowned rider on a white horse. The latter was distinctively designed of stainless steel with a gilded crown. The door had originally been wood paneled with finally wrought Monel hinges designed in the 1920s by Mathias Schmidt under Pitcairn’s guidance. This metal work has been newly positioned into a two-panel door of safety glass. To handle the weight of the new construction, granite had to be substituted for the limestone at the jambs. While it is impressive for its artistic merit from the outside, from the inside the light comes through the glass and magnificently silhouettes the metal design similar to the grisaille of the windows. This is only one door of exceptional reworked artistry. Every door into the church is unique and different, most constructed of teak wood from India and Java, chosen for its durability and beauty. Hinges, latches, door knobs and locks are different combinations of Monel, copper, silver and wood in unique patterns and designs.

Refinements of design visible on the exterior of the Cathedral can be noted on the north side of the nave exterior, where the roof parapets of both the aisle and clerestory appear to follow rising curves toward the tower. At the clerestory level this is created by an intentional curve in horizontal plan. At the aisle level this occurs through the actual six-inch incline of the floor, the unequal spacing of the interior nave arcade, and the different radii of the window arches of the aisle. All these subtle variations cause the apex of the arches to be at different heights and the buttresses to be irregularly placed. This synthesis of asymmetry that departs from the rectilinear achieves nuances of organic design patterned after medieval tradition and used for the first time in American architecture.

Church Interior

The cruciform interior plan of the Cathedral follows convention with a narthex and wide central nave and two smaller side aisles, transept, and chancel, the whole 169 feet in length. The chancel is divided symbolically into three sections and elevations to address symbolism of body, mind, and spirit. Refinements built into the walls and floors add to its organic construction, artistic deviations, and ancient mystery. An overall simplicity of design, integrity of materials and construction, and minimal carving of the stone work achieves an understated house of God. The ashlar coursed walls are of Ohio sandstone (variegated Amherst Buff) from a quarry near Cleveland and represent the only instance in the church where the stone was machine planed, though hand-tooling was completed at Bryn Athyn. Tooling marks show clearly in the stone work. The sandstone is locked into place using strips of Monel metal to link it to the outer granite walls. The nave is made up of a sandstone arcade of five unevenly spaced Gothic arches on each side that support traceried stained glass windows in the clerestory above. These hand-blown pot-glass-pigmented, lead-camed windows shed vibrant colorful patterns of light into the interior and represent liturgical figures and stories. The side aisles have half arches springing from the wall to meet the arcade and feature larger traceried windows than the clerestory. This group displays a wide variety of different colored geometric designs set among pearly grisailed glass. The simple oak pews in the center of the church were manufactured in New England, but prominent panels were carved at Bryn Athyn.

Upon entrance from the porch through the west doors of Monel metal and glass into the narthex one is struck by the sense that the floor rises on an incline toward the Sanctuary. This is one of the easily discerned “refinements” suggested by Cram and incorporated by Raymond Pitcairn. One’s eyes are also drawn immediately through the nave past the grand piers and arches supporting the tower toward the elevated chancel

BRYN ATHYN HISTORIC DISTRICT**Page 22**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

area. There, east of the crossing, three steps rise to the Outer Chancel of three-bay depth. The flooring here is limestone from Bowling Green, Kentucky. A free-standing carved wooden lectern stands at the left and a pulpit at the right. Carved oak choir stalls and delicately sculpted bishop's seats flank both sides. To reach the symbolic number of twelve, three steps rise again to the narrower Inner Chancel where two carved wooden altars stand. The entry into the Sanctuary is marked by three more steps and the predominant Sanctuary arch of composite ribbing. This arch is unique because it widens as it rises upwards, with the greatest width at the springing. In the distance it frames the beautiful east three-bay stained glass window of the Sanctuary designed by Winfred Hyatt and representing the Lord and his twelve apostles. The sanctuary is square with a stone roof of ribbed vaulting divided into twelve sections. The walls below each window are a series of seven arches, representative of seven angels and trumpets from the Book of Revelation. Centered in the space stands a square stone platform raised three steps on all sides. In the middle stands a solid, cherry altar with carved symbols finished in gold leaf. This was installed in 1995 to support the "Word," the Bible so named by the New Church of Jerusalem. Seven tall golden lamp stands lit by oil lights are situated nearby. The space is filled with a lavender light from both the east window and north and south windows, which were specially designed of hundreds of pieces of fan-shaped blue glass plus one piece of red at each base.

From the north transept one enters into the Choir Hall under a second floor balcony for the organ and many of its pipes. Others pipes are located at the west balcony. At the crossing of the nave and transept one can look up into the tower lantern to the bell-ringers deck (no bells were ever installed). Just below the deck are eight lancet windows (two per façade). The transept to the south has an open arcade of four arches that lead directly into a small chapel at a lower level. Each arch is filled with an elegant screen of scrolled Monel metal attached to staves topped by intricate hammered, free-form flower designs. A gate in the screen of the most eastern arch opens into a flat wooden roofed chapel. An outside door is at the west end. The chancel at the east end has a vaulted ceiling of stone.

Returning to the nave of the church one notes there is no triforium gallery, just a string course to provide a vertical division between the arcades of the nave and the Gothic windows of the clerestory. The nave columns are composites of three unequal sized ribs on a side. They extend upward from an articulated base and at the springing of the arch have squared or angular capital-like extensions. Most capitals are unfinished and uncarved, a few have been rounded or trimmed. The ribbing flows upward from these unfinished stones to achieve a peaked arch of multiple folds. Further, at the joint of every two arches on the face of the arcade are protruding keystones ready to be carved. Only in the three bays of the Outer Chancel of the church does one find two sets of decoratively carved capitals on each side and a wide, sculpted band of quatrefoils separating the clerestory from the colonnade.

It is in the nave arcade that a curve in plan occurs, accounting for a six-inch variation from the western column to the middle of the arcade and then down six inches again to the tower pier. The arches and capitals follow this irregularity, visible from the center aisle between the third and fifth columns. The bend in elevation of the nave arcade stands out through irregularities in the level of the clerestory sills and the string course, all intended to create a more organic, irregular, and meaningful structure. While these refinements tend to draw the eyes toward the sanctuary, the verticality of the columns of the nave, the piers of the tower, and the peaks the two stories of arches and windows, draw ones eyes upward to the rafters and the roof.

At the roof level one finds a beautifully designed and carved Gothic timber frame king-post truss system springing from carved, white stone corbels mounted between the clerestory windows. The arched framing that supports the tie beams of the trusses mimics the stone arch of the transept. Hand-carved floral bosses decorate the top edge of each tie beam. Verticality is accentuated by both wide structural posts and decorative mullions that terminate in carved tracery under both the rafters and the tie beam. The truss system and the purlins and

BRYN ATHYN HISTORIC DISTRICT**Page 23**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

rafters of the roof are all held together with locust pegs. In the shorter Chancel areas, the Gothic arching is eliminated and the corbels differ.

On the opposite plane, the floors of the aisles are of seam-face granite from Weymouth, Massachusetts, in strong browns and grays. The large stone pavers have been employed in patterns that include six pointed stars and geometric designs using squares and circles. Often intermingled are small quartzes and flint-like pieces gathered from the fields by school children. The pews sit on unfinished wood boards.

The stained glass windows of the Bryn Athyn Cathedral represent a different manifestation than the craftsmanship in stone, wood, and metal. The achievements of this art are remarkable because the material itself had to be produced totally by methods and formulas not used since the fourteenth century. Three accomplishments were necessary: learning and recreating the production process in America; producing color formulas to manufacture glass in medieval shades, striations, and qualities using local materials, and manipulating the colored palette of glass into symbolic representation of biblical characters to illustrate the doctrinal and religious story of the New Church of Jerusalem by gifted craftsmen. Through dedication of years of research, experimentation, and the will of talented artists the goals were achieved. Work on the glass windows of Bryn Athyn began before the cornerstone was laid and ended in 1950 when the last window was installed. The results are evident in the beauty and designs of the windows and the stories and symbolism they represent.

The allegorical themes and the doctrinal and liturgical derivations of the windows have been well documented.³ Below is a summary of the placements, characteristics, and types of the 48 windows in the Cathedral and chapel.

Nave Clerestory: Ten windows (five on each side) that relate to incidents from the entire Old Testament. They are arranged chronologically, beginning on the north side moving from the west to the east. Each window is three lights, with an angel in the middle one and important figures related to the incident on each side. Medallions below illustrate further details.

Chancel Clerestory: Six windows (three on each side) representing the scenes of Jesus's six journeys to Jerusalem from the New Testament. Arranged chronologically in the same manner as the nave. Each three-light window has three scenes per light.

Chancel Aisle Windows: Two windows, on the north is Moses representing the Old Testament, on the south is John from the New Testament and the Rider on a white horse.

Nave Aisle Windows: Ten windows designed for illumination of the church using pearl-gray glass painted in grisaille (black painted acanthus leaves, and budding plant life or other shapes and geometric designs) but surrounding geometric patterns outlined in colored glass (blue, red, yellow, green). Every window differs in pattern, colored glass, and grisaille designs.

Great East Window: One window of five lights depicting the Lord in the rose window at the top, a candle and star in the trefoils below, and the twelve apostles in the three lancet windows below.

³ Colored pictures and a complete description of the iconography of most of these windows can be found in Glenn, *Bryn Athyn Cathedral*, 143-168. Additionally, the "Census of Stained Glass Windows in America" lists forty-nine windows (including, presumably, Michael and the Dragon located in the Michael Tower. See the entry for Bryn Athyn Cathedral at "Philadelphia Architects and Buildings" (www.philadelphiabuildings.org).

BRYN ATHYN HISTORIC DISTRICT**Page 24**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Great West Window: One window of five lights involving the theme of five churches and their foundings. The south light is the Most Ancient Church, the next is the Ancient Church, the middle light depicts the New Christian Church, the next is the First Christian Church, and the north is the Jewish Church.

West Narthex Windows: Four small windows of medallions outlined in colors surrounded by grisaille treatment.

Tower Lancet Windows: Eight lancet windows representing the Old and New Testament and the Book of Revelations.

South Transept Windows: Two lancet windows representing the Prophets of the Old Testament, Isaiah, Jeremiah, Ezekiel. The design is based on medallions, with three large ones surrounded by semi-circular medallions in the borders. Scenes from Daniel are in the points at the top.

Chapel Windows: Four windows, two in the south wall and two small ones in the west wall. They represent scenes from the world of angels and spirits based on choices made during their life on earth as related by Emanuel Swedenborg.

Ezekiel Tower with Council Chamber and Undercroft (1920-26)

The pastor's vestry off the south transept of the church connects the Ezekiel Tower and the Council Chamber building to the Cathedral through stone passageways with individualized doors and columns unique to each space. The tall, rib vaulted tower room at second floor level is impressive for its colorful large rose windows under the vaulting in the east and west facades. Below are the lancet windows with columns and capitals seen from the outside. Each depicts a different form of animal head, flower, plant, or bird symbolic of Ezekiel's vision.

From the small passageway on the south side of this tower a door opens into the Council Chamber, used for the annual meeting of the Clergy of the General Church of New Jerusalem and laymen of the community. It is a grand space built of rough hewn stone blocks with seemingly leaning walls. Noteworthy immediately is the steep hammer-beam timber ceiling of oak supported by white corbels carved with faces of leaders of the church, including John Pitcairn. Large inset Gothic arches in the wall are separated by wide piers with beautifully carved capitals depicting birds and beasts. These create a horizontal line around the walls, emphasized by a molded stone stringcourse that also flows over the tops of short lancet windows in the main arches. At the east end of the room tall capitaled piers support a peaked arch in the wall under which are three stained glass windows. The middle window depicts Emanuel Swedenborg.

To reach the Undercroft, one must open a door of hand-beaten copper to the right of the entrance to the Council Chamber. This door leads to the narrow stone staircase on the outside of the Ezekiel Tower. As the staircase turns at the base, wider steps with a flat balustrade of Monel metal depicting flowers in sequential ovals lead into the Undercroft. The large room, with black stone used in the floor has a naturally finished wood frame ceiling divided by four wide beams running north to south between the walls. Beaded cross timbers and chamfered joists complete the complex. The stone walls are a series of large round arches in which a Gothic window unit is set. Each is made up of four columns and capitals in pairs, one inside, one outside, each pair with a different sculpted geometric or Celtic pattern. These support pointed arches in which the peaks are filled with panes of bottle glass. Sash are multi-pane in Monel metal. Two large, double-leaf, arch-headed wooden doors at the east end of the room also feature bottle glass in their windows.

BRYN ATHYN HISTORIC DISTRICT**Page 25**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Michael Tower, Choir Hall, and Choir Vestry (completed 1929)

Entrance to the Cathedral complex for visitors is through the double wooden door of the port cochère that opens into a large stone room. A circular staircase winds off one corner, a set of doors go into the Michael Tower to the east and a set of stainless steel framed glass doors look into the cloister arcade to the south (the cloister was left incomplete). The Michael Tower is named for archangel Michael and depictions of scenes from the Book of Revelation. The first floor space of the Michael Tower is notable for its vaulted stone ceiling and the hexagonal stained glass east wall window depicting Michael on his horse slaying the dragon. A double-leaf wooden door opens to the outside below the window. The north wall includes a stained glass lancet window of symbolic scenes, all representing doctrines of the New Church. A medieval-style circular staircase leads to office space on the second floor. On the south side, a set of round-headed doors opens dramatically into the Choir Hall, a long medieval room of two-story height with a heavy timber-framed roof. It is brightly lit through untinted, lancet clerestory windows that reflect off white plaster walls, and smaller rounded windows at the first floor. Most impressive is a wooden balcony at the south end of the room suspended on a massive oak beam. The wall behind the balcony is the only one of natural stone. Under the balcony and a segmental arch of stone at the north corner is a double-leaf arched door with long strap hinges and hardware. This door leads into the Cathedral.

Two doors lead off the north side of the Choir Hall. One leads into the former woman's Choir Vestry of three one-story rooms, including a bathroom. The other leads into the former men's Choir Vestry, now used as a book shop. Both of these rooms use diagonal muntined windows with tinted yellow glass that let light through but not images. The second floor space of this building now serves as the music hall for the choir.

Integrity

The buildings comprising the Bryn Athyn Cathedral Complex retain an extremely high level of integrity and essentially the architectural and decorative features of their earliest days. Few alterations have been made except replacement in kind of the metal roofing, improvements to the downspouts, and masonry repointing, most recently on the Ezekiel Tower. Functional changes for accommodating modern needs have occurred specifically in the Choir Hall and Vestry, where these spaces now serve visitors. A book and gift shop occupies the first floor of the Men's Vestry and the upper room has become space for the choir. In the church proper, the west balcony now houses an additional organ sound box and the original Monel and wood door in 1995 became an improved design using glass instead of wood. A similar change took place in the Vestibule, where the wooden door to the cloister arcade was altered to a stainless steel and glass door of compatible design to provide a view through the cloister arcade and light transmission into the room. The Cathedral is revered for its original craftsmanship and design and retains remarkable integrity with modest improvements for sustainability and contemporary use. The installation of the last stained glass window in 1950 and the revised glass and metal doors of the west portal in 1997 indicate that the organic nature of the Cathedral's growth continues to follow high quality design and materials.

CAIRNCREST (1926-28) Weatherill P. Trout and Llewellyn R. Price, architects, for Harold and Clara Pitcairn***Setting***

Cairncrest lies southwest of Glencairn and Cairnwood and northwest of the Cathedral, placing it in the western most leg of the district on a wooded hillside that faces southeast toward the Cathedral. Cairncrest, like Cairnwood, is a complex of buildings. They are approached from a driveway off Cathedral Road near the west end of Glencairn. The drive winds downhill through open space past turn-offs on the east and west sides to outbuildings. From the south a winding, steep driveway goes up the hill from Quarry Road and connects with the others east of the complex at the service wing. The mansion is aligned nearly on an east-west axis with a

BRYN ATHYN HISTORIC DISTRICT**Page 26**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

western wing angled to the north. Its south façade looks southeast over a groomed slope of the hillside and open fields toward the Cathedral. The building's bulk and mass, distinguished by a tower and a solid stone terrace wall, inspired by Romanesque architecture and alluding to a Norman castle. To reach the north side of the mansion one must drive west through a portal in the north wing of the building into a circular driveway that creates a courtyard. On the north side of the portal is a child's playhouse and former pergola defined on one side by a solid stone wall and an open row of columns on the other, connecting to a round Solarium. Northeast of the Solarium is a large parking lot with a small building with a tall chimney, the former Heating Plant for greenhouses that once connected to the Solarium. Directly across a driveway is the two-story stone Garage with Chauffeur's Quarters on the second floor. A new stuccoed, shed-roofed wing for business offices and a book and media center was added to the west side in 1989 to create the Cairncrest Annex. Other outbuildings and structures are a small, two-story stone Laundry building with an open east façade and landscaping to create a laundry-drying courtyard across a driveway at the east end of the mansion. Off the west end of the angled wing of the house lies a swimming pool nestled into the hillside with walls and railings and a tall, round Gazebo at the far west end.

Architectural Overview

Cairncrest was completed in 1928 for John Pitcairn's youngest son Harold. Concepts for the mansion stemmed from designs of the Bryn Athyn Studio that were passed on to Weatherill P. Trout and Llewellyn R. Price, Philadelphia architects and friends of Harold's. The style is a unique mixture of picturesque asymmetries in its overall three-dimensional design and façade treatments combined with medieval towers and unusual twentieth-century metals and décor. On the exterior, the construction materials are stone, all quarried locally, providing many different color variations and reflecting medieval tradition. The outbuildings, with the exception of the cast stone and glass Solarium are of the same masonry. Behind the stone of the mansion, however, is a layer of hollow tube clay tiles. Interior walls are built of a light-weight U. S. gypsum block featuring horizontal perforations. This interior substrate served for a barn-dash plaster treatment on the walls. Poured concrete for ceiling forms, floors, beams, and staircases are used throughout the house but always painted decoratively or finished with tile. Windows are generally casements of multi-panes constructed of Monel. The use of hidden twentieth-century construction materials fashionable and innovative at the time shows a different tradition than Bryn Athyn Cathedral, while the interior finishes are fully illustrative of the decorative arts that evolved from the Bryn Athyn Studios associated with the Cathedral and the national Arts and Crafts Movement.

Exterior

Cairncrest is an asymmetrical, three-and-a-half-story vary-colored cut stone, gable-roofed building that bends into the hillside and includes a walled terrace at the south face. Two wings project to the south and at the east end one projects to the north. Seen from the south, a large irregularly shaped tower with two, round-arched openings under a large conical roof looms above the main roof ridge at the northwest end. Extending perpendicularly from the south façade of the central block are two unequal-length gabled roofed wings, the shorter one to the east. Both wings end on an open, balustraded stone terrace with angled walls that create a building platform in the landscape. Rounded arches in the east-end terrace wall served as garage door openings for Harold's cars that were parked under the terrace. A staircase from the terrace at this end terminates at a driveway area of stone pavers. At the west end another staircase leads into the grass.

At the terrace level the façade of the main block between the wings features four rounded arches supported by columns with square capitals. Two of these four capitals are carved; two others remain unfinished. They identify the home of Harold Pitcairn, aviator and engineer. On each face of the capital is a carving of a different type of airplane. At each corner is a bird with its wings outstretched. From the vaulted porch, three arched door openings lead into the central hall. At the second floor level of the façade, metal multi-pane casement windows align with the arched openings; above in the roof are shed roofed dormers. The overall

BRYN ATHYN HISTORIC DISTRICT**Page 27**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

asymmetry of the building is accentuated by the placement of a stone chimney in the southwest corner of the terrace and against the west wing. The latter features a large, multi-pane, tripartite window in the end wall that serves the living room. Above this window is a wrought iron balcony with a French door in a round-headed opening for the master bedroom. In contrast, the shorter east wing contains a large segmental arched opening for a transomed bifold door that opens into the dining room. Above, two casement windows serve a bedroom. The gable peak features a segmental arch with a tripartite casement window. The east façade of this wing includes two narrow, medieval-style round headed windows on the first floor and three different-sized windows above.

The east gable end of the main block terminates with a tall exterior stone chimney but links to an eastern extending building wing. This wing is set slightly back from the plane of the main façade and is lower in height although it rises three full stories from ground level and has a half-story marked by two shed-roofed dormers. It too ends with a chimney at the gable peak. In this wing basement level windows are small; second floor windows are large casements, and third floor windows are of mixed sizes, including a three-part window in a gable-peaked dormer.

The north façade of Cairncrest includes the main entrance to the building and the imposing tower visible from the south. To reach this side of the house, one normally takes the driveway off Cathedral Road directly to the mansion. The first view of the building is between tall evergreens at the one-and-a-half-story north extension featuring an articulated archway through the building for pedestrians and vehicles. Above the arch is a projecting masonry bay with medieval crenations and a multi-section leaded glass window under a hipped-roof dormer. Under the arch, which actually serves as a porte cochère, is the original main entrance door to the residence. Continuing through the passageway takes one suddenly into a large circular courtyard reminiscent of a medieval castle. A five-story faceted tower reaching above the roof line of the attached residence stands before you. Adjoining on the tower's west side is a narrower squared tower of equal height that adds a different geometry and serves an elevator. An angled building wing extends from the west side of these towers.

To the east of the towers is an entrance pavilion centered in the main façade. Farther east is a short tower nestled into the northeast corner at wall height. It is topped by a round roof that ends in a slightly angled peak. The impact of these towers is heightened by one's arrival through the modest archway. Further, the irregular angles and curves of the building's façade seem to wrap the courtyard, which is enhanced by paving blocks laid in a circular pattern around a central tree. An organic quality to the architecture becomes evident. On closer inspection the largest tower (a stair tower) is rounded on the south side and angled on the four sides facing the courtyard—features articulated again by similar roof treatment. Horizontal banding in the stonework divides the tower into three sections. The north tower face has the largest of three round-headed window openings in the top section. Small lancet windows mark the interior winder staircase in two faces at different heights.

On the first floor between the towers three arched openings in the masonry offer double glass doors for entrance to the building. The middle one has a shed roofed entranceway. Wood piers on a base of stone are fitted with glass panels at the sides for weather protection and to create a principle doorway. At second floor level across this arcaded front a previously open porch has been enclosed by wooden posts and six large four-panel glass windows. To the right of the main tower an angled two-bay wing extends westward and features a large stone chimney at the gable peak. This wing ends with a former open porch on the first floor and a sleeping porch on the second floor, inset and slightly angled from the main block. Both spaces are now enclosed with glass and wood for office use. Board paneling is used on the second floor, painted wood shingles on the first.

The longest extension to the main building block is the north wing. It is made up of the two-story wing with the entrance arch, and then extends northward as a one-story gable-roofed unit with two arched doorways in the

BRYN ATHYN HISTORIC DISTRICT**Page 28**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

west façade. This was a children's open playhouse and features a wooden loft area on the inside. The north side of the playhouse opens onto a stone walkway and continuous stone wall. Five round stone columns that support a beam and transparent corrugated roofing material substituting for the crossbeams of a former open **Pergola** that leads to a round **Solarium** of stone, cast stone, and glass with an entrance off the walk. The round façade of the Solarium consists of pilasters with fluted capitals separating windows of twelve lights. The Solarium is finished with a peaked roof of metal vertical ribs and angled horizontal ribbing.

Interior

While the exterior of Cairncrest has minimal architectural ornamentation or sculptural work (the two porch capitals with carved airplanes being an exception), the interior of the building reflects hand-wrought craftsmanship and medieval architectural construction methods throughout the first floor and in significant bedrooms on the second floor. These range from the use of "refinements" or obvious avoidance of rectilinear construction to undulating, uneven plaster finish on the walls; Moravian and Enfield tiles in different colors, glazes, and patterns; grand stone fireplace surrounds; exposed, natural, hand-hewn beams or ornately painted beamed ceilings; decorative plaster work on ceilings or cornices; fine metal work at railings, hinges, door handles, and light fixtures, and wooden doors of medieval proportion or exhibiting handmade characteristics. Swedenborgian symbolism makes up the decorative motifs. The architectural spaces of the building on the whole reflect general twentieth-century traditions, but both barrel vaulted ceilings, rounded (Romanesque) or pointed (Gothic) archways, and vaulted roofs with exposed timber-framing achieve the atmosphere and look of past architectural traditions counter to the industrial processes of the twentieth century. The craft features stem from the Bryn Athyn Studio and the artists involved with the Cathedral construction. The tile used comes from two sources: the Enfield Pottery and Tile Works, Enfield, and Mercer's Moravian Tile Works, Doylestown, both in Pennsylvania.

The entrance to the residence off the courtyard brings one immediately into the Great Hall. This is a long wide room with three matching doors with transoms in arched openings in both the north and south walls. The south doors open onto the porch and terrace with a view to the valley below. The unusual features of this room are the ceiling and floors. The ceiling is divided by four wide painted concrete beams that break the expanse into panels. The beams are highlighted at the edges in blue and gold and finished in decorative relief made up of intertwining vines, flowers, and blossoms on the flat lengths. The flats of the ceiling are painted in a mottled silver over blue and sprinkled throughout are various sized stars in red and silver. Features of the earth and heaven are thus superimposed at the ceiling level. Equidistant from the end of the room, two highly ornate metal chandeliers with eight arms hang from chains at the center of painted ceiling medallions. Geometric patterns in reds and beiges decorate other panels.

On the light yellow plaster walls with an uneven texture, wrought metal rods with spear-like ends are held in decorative brackets over the doorways. These once held draperies. The floors throughout this hall are of glazed terra cotta tiles in grays and blues. At the perimeter of the room a more complex decorative pattern creates a distinct border.

The important entertaining and family rooms are reached through a central door at the west end of the Grand Hall. First one enters a transitional hall space articulated by different ceiling and floor treatments. It is marked by a beamed concrete ceiling with six sectional vaults, all painted green. The beams are elaborately over painted with gold floral and serpentine figures on an undulating vine. A hanging wrought iron light fixture repeats the serpentine figures. The floor is made up of a circular intertwining pattern outlined in cut stone and filled with glazed terra cotta tiles. To the north is a simple wall with a single door. This is a new wall added for

BRYN ATHYN HISTORIC DISTRICT**Page 29**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

fire-code purposes blocking off the staircase and elevator tower so prominent on the exterior of the building. The wall eliminates what would have been an impressive view of an elaborate and spacious stair hall, but it is reversible.

Behind the added wall both the floor and ceiling design work continue. Impressive within this space are two new features. First is the monumental circular cantilevered staircase of poured concrete with tile risers that ascends in the stone stair tower. Its unique, metal balustrade and hand rail system was designed of wrought Monel metal. Groups of four twisted metal balusters alternate with six wider decorative panels. Each is made up of a central, undulating leafy stalk with birds, chipmunks, squirrels, and all forms of small animal life hiding among the leafs. Each of these panels is a different configuration of nature as the staircase ascends. The color of the metal changes continually with the light and wear. The underside of the staircase is painted green with an overlay of gold floral patterns.

The second feature of this space is an elevator, found behind a windowed door in the white wall. This door is painted a dark blue-green and finished with a decorative pattern of arabesques and flowers in gold. At the second-floor level a second elevator door in a green tone is over-painted with a different decorative gold floral pattern. A powder room exists at first floor level in the northeast corner of the floor space. To achieve a fire exit, a window was altered to a doorway and a wall was added to separate the bathroom fixtures.

Returning to the hall created by the new wall, one is across from a pair of massive, single panel wooden doors with heavy scrolled wrought strap hinges in an arched doorway on the south side. These open on to a sunken living room located in western perpendicular wing to the main axis of the mansion. The living room is down three steps. One immediately notices that the connection is not square, establishing a fluidity of design. A "refinement" borrowed from the medieval construction techniques used in the Cathedral. On the south wall a large vertical four-section, multi-pane window fills the center wall, but is covered in vertical blinds. The window pane pattern increases rhythmically downward from the ceiling to the sill moving from two, to three to four panes. The center windows open as casements of eight panes each. The warmth of the white-walled room comes from random-width cherry wood flooring and a medieval-style ceiling of hand-hewn and naturally finished beams and joists. Large chamfered beams run east and west. Joists and wood boarding of the ceiling are fit in framing above the beams and run north and south. The hand-hewn markings are consistently evident throughout. Another feature of the room is in the west wall, where a fine stone fireplace surround has column capitals highlighted by sculpted birds, different on both sides, and a dentil-ed band under the mantel shelf. To the south side is a firewood box with a painted wooden door with decorative hinge.

This room illustrates typical architectural features found elsewhere in the house. Window sills are finished in Moravian tiles. Radiators under the windows use iron grills of diagonals or squares decorated with flower blossoms, fleur-de-lis, or other details of nature, varying from one room to another. Wrought iron curtain rods and hooks above window or door openings provide antique castle-like ornaments. Shapes of doors and windows in a room reflect their purpose rather than following symmetrical balance. Here in the living room a door to the terrace east of the fireplace is arch headed. On the west wall two segmental arches are used for wider glass-paned doorways that open to exterior metal balconies, one with a staircase to the ground.

The west end of the first floor is not rectilinear and angles to the north. It contains two important rooms, the children's playroom to the south and the family library with a repository for The Word (Bible) to the north. The playroom entrance door typifies the beautiful carving of wood for decorative and functional use many places in this house. The eight panels of the door are carved in relief to display animals, birds, butterflies and bees all in motion. The playroom, though small, has painted fantasy scenes of nature, castles, and fairy tale characters in medieval dress all around the room. The murals were restored in the 1980s. In the northwest

BRYN ATHYN HISTORIC DISTRICT**Page 30**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

corner a rounded stone fireplace extends into the room. A conical hood extends upward through the mottled ceiling and is decorated with three painted medieval shields. Two represent the Girls and Boys Schools of the Academy. The girls to the right are symbolized by an eagle and her young; the boys on the left by St. Michael fighting the dragon of Revelation. In the northeast corner are a series of built-in square, paneled-door cabinets of cherry wood. Hand planing marks and intricate hardware add to their charm. The playroom leads through double glass doors into a former open porch, now enclosed for office use.

Off the north side of the hall a single door leads past built-in bookcases and suddenly into the barrel vaulted library with a decorative white plaster ceiling of a continuous floral relief pattern. This contrasts with natural wood paneling and built in bookshelves on the west and south walls, all carved with symbols of the New Church teachings. The north wall has two casement windows. The Pitcairns used this room for family worship. At the east end wall double-leaf arched doors open onto a deep niche finished in gold leaf that is the repository for The Word.

At the east end of the Great Hall two symmetrically placed arches lead into other important areas of the Pitcairn residence. Each arch tapers to a smaller opening on the east side that is fitted with double leaf arched wooden doors. When open they fit perfectly against the jambs. The south arch leads into the former dining room, which makes up the short southern wing; the north arch goes into the hall of the original east kitchen and service wing with a branch to the northern perpendicular wing.

The dining room features a natural wood beamed ceiling similar to the parlor. The floor is terra cotta colored Mercer tile laid in diagonal lines. The uneven white plastered walls of the hall repeat in this room, except at the north wall. There a wooden wall of large panels below and small above features a large central fireplace outlined in multi-tones of beige stone cut in squares. A band dividing the different panel sizes protrudes with a mantel with carved petals and dentils. Perpendicular battens with carved leaves further define the fireplace area. Each of the panels in this wall exhibits different subtle sculpting of the wood, to achieve shadows and reflections in the day light that make it come alive. On the opposite wall is a large centered window of three vertical parts, all multi-paned. Arched window openings with casements are paired in the west wall and stand as a door to the porch in the east. An unusual feature in this room is a bracketed metal track with hooks for draperies attached to the wall continuously just below the ceiling beams. A door in the east wall leads into the kitchen pantry where a dumbwaiter door still remains. The residential tile kitchen to the east has been fully converted to office space. A door in the southeast wall leads to a small meeting room that was the former servants' dining room. Through a north exterior door it provides access to an open vestibule and outside to the separate laundry building at the east end of the residence. An exterior staircase descends along the north side of the kitchen wing to the basement and the laundry room.

The north archway from the Grand Hall leads into a hallway that quickly makes a sharp turn into what served as the Pitcairn's north entrance wing. The floors are finished with hexagonal Mercer tiles of beige, terra cotta, yellow, and blue. Ornamenting the white walls is a heavy cornice with a beaded band at the edges and an undulating vine with turning leaves, buds, and blossoms high-lighted in gold. A door in the west wall opens into Harold's study, located in the short round tower on the east side of the courtyard. The most notable features of this space are the rounded walls covered with oak paneling from wall to ceiling. Across the hall from the study are two doors. One goes to the kitchen wing and a service staircase that rises from the cellar to the third floor. The other enters the former breakfast room, now a meeting room with added fluorescent light fixtures. Typical features such as Mercer tile on the window sills and ornate radiator panels remain unaltered. North of the breakfast room off the hall is a bathroom and former coat room with two windows in the north wall. Tile again prevails both on the floor and as a back splash behind an elegant marble sink on metal legs.

BRYN ATHYN HISTORIC DISTRICT**Page 31**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

The hall at the north end is lit by a deep three-part stone-framed and silled window of two arched openings and a bull's eye above. An elegant, double door of incised metal with ten glass panes per panel leads into a vestibule with a new combination of tiles, shapes, and colors. The exterior wood-paneled door opens onto the driveway that passes through the north wing, effectively creating a porte cochère for guests.

Harold also had another important space in the house that was located in the cellar under the dining room. It is reached from the servant's staircase north of the pantry in the east service wing. Once in the basement it is off a small pantry. Three steps down into a cross vault put you in a large barrel-vaulted stone space with a distinctive stone fireplace at the north end. The Pitcairns called this the "Stone Room." Here Harold met with many of his colleagues and designers in the aviation business. It is little changed other than the furnishings. This room now serves as a meeting room for special programs because it is easily accessed directly from the outside by a door in the southeast corner. Here was also a door directly into the garage under the terrace. At the west side of the room another cross vault leads to a powder room and steps down into a children's playroom in the large room under the Grand Hall. A gymnasium with a wooden floor remains under the parlor. Another special space was a secret wine cellar built all the way to the south beyond the building's foundations and under the terrace. Access is from a storage area west of the garage, where there is a trap door in the floor. One goes down a staircase, and through a locked vault door. Along all the walls are poured concrete cradles for wine bottles. The basement had another interesting feature for the staff. The laundry room was under the kitchen and led to a tunnel from the east end of the foundation wall to a dumbwaiter in the basement of the detached Laundry building. The wet laundry was raised to ground level for drying in the sheltered yard area.

The second floor of Cairncrest is now devoted to offices, but originally it serviced the family and staff as ten bedrooms, six bathrooms, and two open sleeping porches with exterior awnings. The master bedroom was located at the southern end of the projecting west wing, designed to overlook Bryn Athyn Cathedral and to be easily accessed from the main stair hall and serve the neighboring nursery. A housekeeper's suite of three rooms was located at the east service end of the building near the secondary staircase. This staircase also provided access to a guest bedroom at the end of the north wing. The three primary family rooms retain distinctive architectural features today. The master bedroom's high ceiling is finished completely in exposed natural wood rafters and sheathing that sharply contrast with the white walls. The south end of the room has a new double sliding glass door that opens onto a small metal balcony for viewing the countryside below and the Cathedral to the east. (The original door was a double leaf, tall arch-headed door. The arch has been filled in.) Large casement windows are positioned in the west and east walls. At the north end of the room closet and bathroom spaces remain. The nursery, off the hall to the master bedroom features a decorative, running molded plaster cornice and frieze around the walls. At the ceiling edge a cove molding is articulated by an egg-and dart motif at the top and bottom. Below this a delicate raised frieze of scrolling vines, leaves, and trumpet flower blossoms provide symbolism for growth.

At the diagonally opposite end of the second floor, at the end of the north wing and over the porticus into the courtyard is the former guest bedroom. The space opens to the peaked roof with exposed wooden rafters. In the north wall is a small stone fireplace in a wood-paneled nook at the west corner. The east wall features the dormer extension over the archway with its diamond-paned four-part casement window. The west wall has a double-leaf door that opens onto a small metal balcony with a view to the west. The bathroom is in the southeast corner.

Two screened sleeping porches on the second floor have been enclosed with glazing between the original wooden posts to replace the screens. The largest porch spans the north façade between the two towers. The original exterior stone wall has two windows and a central door that open onto the east-west hall. The north face of the masonry wall and the floor is decorated with highly glazed, colorful Enfield tile. The smaller porch

BRYN ATHYN HISTORIC DISTRICT**Page 32**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

is at the far west end of the house and connects to two bedrooms through double-leaf doors.

The third floor of Cairncrest is accessed through the main and secondary staircases but also from the north wing by steps outside the guest bedroom. This floor has seven finished spaces and two bathrooms, one serving a bedroom with a fireplace added in the 1930s at the far west end of the house. This room is reached from a spiral masonry staircase off the west sleeping porch. Two rooms at the east end served the house staff; the large central room was a playroom for the children.

Outbuildings

Other separate buildings and structures associated with Cairncrest exist to the east, north, and west. The small **Laundry** building off the east kitchen wing is linked to the house through a basement tunnel. The narrow hipped-roof building stands at a low area in the landscape that is circled by a service road off the driveway from Quarry Road. Two thirds of the east side of the building lacks a façade. The south third is finished on all sides for the dumbwaiter used to bring the laundry up from the cellar. This configuration is visible on the west façade through an open arched doorway, three narrow square-headed window openings, and a low multi-pane sash window to the south. The laundry was hung out to dry on lines strung from the northeast side of the building to posts located in the lowered elevation of the hillside. Further screening was provided by plantings around the circle. Today the area is used for mechanical equipment.

At the opposite end of the site, northeast of the Solarium is a parking lot with two structures across from each other at the far northeast end. They each have stone gate-post extensions up to the driveway that comes off the north entrance road. Now known as the Cairncrest Annex, the larger one-and-a-half story stone building with a cat-slide roof on the east was the **Chauffeur's Quarters** above a multi-car **Garage**. Three square window openings at the second story served the apartment porch. On the east side, four hipped roof dormers finished with cedar shingles in the steep roof serviced the apartment. The building was expanded to the west with a contemporary stuccoed block addition of one-story to serve administrative and publication offices. The smaller one-story, flared, gable-roofed building with a chimney at the east corner and a casement window in the west facade was the **Heating Plant** for a row of greenhouses that originally extended south to connect to the Solarium. The south façade shows the arched doorway that would have entered the greenhouses; evidence of the original roof lines for the latter are also visible. The former greenhouse site has been blacktopped for parking.

After the house was completed, at the west end a rectangular swimming pool complex was built into the side of the hill at a lower grade level. A stone wall along the north side marks the pool in the landscape and serves as a buttressing wall for the plateau. The diving board was at the west end, but the pool is now filled with soil and planted with grass. A stone walkway around its edge defines its shape. At the western end of the stone wall and on a stone platform stands an elegant, round **Gazebo** with a high, peaked roof reminiscent of the residential tower. Eight open metal arches linked by a horizontal band support the wood-shingled roof. The fluidity of the lines causes the structure to appear practically Art Nouveau in style. Steps from the stone platform wind down to a pump house at a lower grade. Railings around the pool complex are of beautifully designed Monel metal rails, pickets, and panels that combine sea serpents and scrollwork both vertically and horizontally. The sea serpent grouping alternates with five panels of five straight pickets with scrolled tips.

Integrity

Although the Cairncrest building complex of the Harold Pitcairn family has been fully adapted to institutional administrative use by the General Church of the New Jerusalem, the integrity of the buildings and their character-defining features of the original designs have remained intact, with particular regard to the original

BRYN ATHYN HISTORIC DISTRICT**Page 33**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

construction details, floor plans, and interior decorative detail. On the exterior, the major alterations or changes to the residence, all of which are reversible, include the cement block and wooden infill of the two garage doors under the terrace, the addition of an entrance portico over the central double leaf door in the north façade, and glazing added to three former porches: the two sleeping porches on the second floor and the open porch off the playroom and library at the west end of the first floor. In the south facade of the master bedroom, a new square-headed sliding glass door has been substituted for a double-leaf arch-headed doorway, causing the upper archway to be infilled with stucco. On the north façade, a window in the first floor of the stair tower was converted to a door as a fire exit. This impacted only a minor change on the interior to a wall enclosure for the bathroom under the staircase.

On the interior the most significant addition for fire code purposes is the wall dividing the Grand Staircase from the transecting east-west hallway. The wall itself blends with other features of the house, causing it not to be obtrusive, and it has not physically marred the decorative painted ceiling of the hallway. Unfortunately, however, the open area and visibility of the circular staircase of the tower is diminished as well as that in front of the grand arched doorways into the parlor. Certain doorways off the servants staircase in the east section of the building have also been changed to accommodate fire code exits but with minor impact.

GLENCAIRN (1927-38) Raymond Pitcairn, architect, for Raymond and Mildred Pitcairn

Glencairn, now known as **Glencairn Museum**, is the former home of Raymond and Mildred Pitcairn and the repository for the art collection of Raymond. The building sits on over six acres of land west of Cairnwood on the same ridge of green lawn that rises above Cathedral Road as it proceeds westward from Huntingdon Pike. In addition to a Great Hall for entertaining and an Upper Hall for living, dining, and music, the building contains eighteen bedrooms, thirteen bathrooms, ten washrooms, two kitchens, a chapel, elevator, gymnasium, and various utility rooms. Its hipped roof tower of more than nine stories is visible from miles around, competing only with that of the Cathedral below. The majesty of the stark, neo-Romanesque building is accentuated by its prominence on a hillside where the primary deciduous trees stand behind, or at the edge of the building. Low evergreens provide perimeter plantings along the south façade; taller ones are at the east corner. Stone terracing, higher at the west than the east to accommodate grade changes, creates a podium for the building. A winding walkway from the west end of the Cathedral Road parking lot ascends upward with steps to the terraced garden areas and the open cloister attached to the west side of the building. By road, the approaches to Glencairn are from the east or from the west. From the east, arrival is through the gates of Cairnwood and across the ridge to a driveway complex at the main entrance on the north side. Large blocks of locally quarried stone create a large circle at the north entrances to the building. The west driveway is directly off Cathedral Road and proceeds past the northwest end of Glencairn and downhill to a parking area that can also be reached from the east. The lower topography on the north side provides access to an extension of the basement of Glencairn, where garages with overhead doors are built into the hillside. Stone walls and steps buttress the landscape and provide access to a well defined stone patio with a fountain in front of the original main entrance to Glencairn.

Architectural Overview

The asymmetrical stone mass of roof heights, wings, chimneys, balconies, and towers that make up Glencairn in a twentieth-century Romanesque revival manner was achieved between 1929 and 1938 through the designs and models of Raymond Pitcairn and implemented by the craftsmanship of the work force at Bryn Athyn after the Cathedral and Cairncrest were complete. The construction methods and building materials combined specially selected natural stones, woods, and specialty metals, such as Monel, in combination with both historic and contemporary techniques like poured ferro-concrete. Decorative elements combined medieval stone carvings, stained glass, mosaics, and innovative combinations of glass and concrete in both medieval, Art Deco, and

BRYN ATHYN HISTORIC DISTRICT**Page 34**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

symbolic Swedenborgian patterns. The building is not only unique as a residence in a suburb of Philadelphia, but is also unusual as a repository of a medieval art collection obtained principally as patterns and examples for artisans of Bryn Athyn Cathedral's construction. Its design, construction methodology, craftsmanship, and inherent artistic value make Glencairn one of the rarest buildings in America today. The architectural principals and features employed stem from his learning and understanding of medieval artistic practices plus religious beliefs and symbolism of the New Church of Jerusalem. These ideals, craftsmanship, and unfettered funds achieved a magnificent mansion unequalled by any other today.

The use of the rectilinear at Glencairn was avoided and implementation of "refinements" meant a softening of angles, corners, and wall surfaces to achieve a sense of flow and growth representing organic architecture and the work of a sculptor. The overall plan of the building is on an east-west axis that follows the ridge of the hillside and allows the family chapel to face east from the tallest mass of the near central tower. East of the tower two wings spread north and south off the gable-roofed block that ends in a three-sided apse. West of the tower the body of the building expands to the north where the Great Hall rises with a large gable roof behind the perpendicular apse-like wing to the south. Attached to the west façade of the Great Hall is a three-sided, one-story cloister plus a cement block archival and storage room added in the 1960s.

Exterior

In elevation and viewed from afar Glencairn stands out as a stone, multi-level, asymmetrical group of building blocks tied to a near-central battered Norman-style tower with a peaked roof. Most outstanding is that the roofs are of blue tiles of twelve shades to create a variegated soft blend that contrasts with the multiple different granites Pitcairn gathered from different sections of the northeast and the local Pennypack Creek quarry. The view toward the south façade shows off the battered construction and sharp corners of the tower with its diminishing width as it rises. These features are strengthened by the changing window dimensions at each level and the combination of arched and square headed windows throughout. The first and second floor windows are marked by a group of four arched windows; the third story combines a balcony with a large central square-headed opening flanked by two irregular narrower ones. The corbels supporting the balcony depict in half-length likeness each of the Pitcairn children playing a musical instrument on which they were trained. The fourth story reduces the same combination in height and width; the fifth and sixth story features one tall opening with a sash of narrow side-lights and multiple panes across the top. At the seventh floor level arched stone work alternates with four arched windows. At the last enclosed story on the eighth floor are three round bulls eye windows. Above, at the ninth story a balcony with balustrades of Monel metal mark the base of what would normally be the belfry. Here all facades are of three round-headed, lancet windows created by two columns with carved capitals. Light transmitted through these four open sides achieves a transparency and lightness of design. In actuality, internally at this level is a special glass walled and Monel metal observation room, reached by stairs or elevator, for viewing the countryside. The eighth floor below retains a kitchenette and restrooms for entertaining.

On the east side of the tower a set-back building extension with a gabled roof terminates at sixth floor height. Below at fifth-floor level the walls end in a three-sided bay. This is the two-story family chapel and can be noted by the rounded window at the east and an irregularly arched window on the south façade. The roof line then drops to three story height for a lower gable-roofed building section with a chimney and a perpendicular hipped-roof one-bay extension.

To the west of the tower is a set-back, one-bay wing that terminates at the eighth story of the tower with a shed roof and an open sleeping porch with balcony accessed from the seventh floor. The main block of Glencairn develops westward of this tower appendage both to the north and south. At the north, a steep gable roof running east-west peaks at seven-story height and defines the Great Hall, which on the inside opens to this

BRYN ATHYN HISTORIC DISTRICT**Page 35**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

ceiling height. A perpendicular irregularly shaped three-story wing with an apse-like southern end façade and flanking shed-roofed wings extends southward of the Great Hall and defines the Upper Hall. At roof level the apse end features a sculpture of a reclining lamb. At the second story the apse extends southward modestly creating a division between stories. The arch-headed windows of this level and its wings are different sizes of plate glass. Above, at third-story level are three tall arched windows of multiple panes defined by columns with sculpted capitals. These mark Raymond Pitcairns library. The window for the western shed-roofed bay serves the Pitcairn master bedroom.

A view of Glencairn from the southwest makes visible other asymmetrically placed wings and towers that seem unexplainable and whimsical from the exterior but internally they were designed for particular functions. For instance, at the northwest corner of the main tower is a round, peaked-roof turret with a crenelated cornice that flows into that of the main tower. This round tower appendage houses the elevator that serves Glencairn from the basement to the ninth floor observation room. Farther west, at the northwest corner of the south-extending apse wing is another narrow apsidal block. It is tied to the western shed-roofed wing to the south and to another three-story extension to the north. The latter has faceted columns with carved capitals supporting a hipped roof over an open porch. At the corner of all these blocks a peaked roof tower reaches nearly six-story height and features a rounded, continuous six-light window facing west. Internally this complex serves three levels with important functions. The windows light a two-story Treasury Gallery at the fourth and fifth stories; a single window at the third story is the bathroom for the master bedroom in the neighboring wing. The bathroom opens onto a railed sleeping porch that projects westward overlooking the cloister. At the east end of the bathroom and dressing room a stone spiral staircase descends to the interior Upper Gallery space, providing the Pitcairns immediate access to their entertaining level.

The most prominent feature of the western façade of Glencairn is the seven-story gable end of the Great Hall that towers over the one-story, four-sided cloister extension. The large, round, stained glass window under the gable peak and three round-headed, lancet, stained glass windows dominate the entire façade in a medieval, ecclesiastical vein. In contrast, there is a windowless stone façade of a perpendicularly placed gable-roofed block to the north with only a small three-story rectangular wing protruding above the cloister height.

The south façade of the cloister features a series of arches projecting out of the stone work that mirror those on the interior. A triple arched window opening with two columns breaks the façade in the middle. Projecting from the quadrate at the southwest corner is an arched semicircular entrance. Here the masonry, blue roof tile, and four short columns with beautifully carved capitals representing different families of four-legged animals converge in an impressive artistic combination at human height. On the interior the cloister uses arches and columns of irregular heights and different capital carvings, fostering refinements of architecture and craftsmanship. The roof is of natural timber. A built-in seat centered in the north arcade featuring a carved ram and ewe is positioned below a double-arched window overlooking the valley. The center of the cloister's garden holds a round fountain. Stone circles identify planting beds at the corners. Attached to the western side on the exterior is a one-story block and stucco building of the late 1980s currently used for housing archival materials and extraneous furnishings. This addition did not alter the cloister in any way and has been largely screened by shrubs and other plantings.

The north façade of Glencairn provides the main entrances to the building and much of the most symbolic and artistic sculptural stone carving. It is divided into two main halves, the western portion making up the Great Hall and its adjoining wings and the eastern portion featuring the main tower and its multiple eastern extensions. The western wing features the gable-roofed five-story block attached perpendicular to the north side of the Great Hall. It's north façade includes a one-story projecting flat-roofed porch below a trio of arched lancet stained-glass windows. The middle window is the tallest. The stone porch has a three arches in the north

BRYN ATHYN HISTORIC DISTRICT**Page 36**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

face and one arch on the east and west ends. The main door to the Great Hall is at the center of the middle arch and is opened for large events. All rectilinear features of the corners of both the main block and the porch are diminished by the use of chamfered corners. In the taller block, eagles are carved at the top of the chamfer with their wings raised to transition back to sharp corners under the roof.⁴ At roof height the porch corners are sliced off to just below the height of the arches. In recent times a glass enclosure with thin vertical and horizontal mullions has been added within the porch openings.

The north side of Glencairn east of the Great Hall is immediately distinctive and architecturally complex through the multiple attached towers, turrets, chimneys, and porches and the many planes of the façade. Prominent west of the tower is a tall chimney that rises free standing above wall height and serves the fireplace of the Great Hall. Its rounded cap with arched openings on each elevation replicate that of medieval times. North of the chimney masonry protrudes for an interior staircase built on the outside wall to go from the first floor to the second-floor balcony. Overall, the main battered tower retains its prominence on this façade. Here the fenestration patterns and dimensions accentuate the diminishing tower width. This façade is further distinguished from its southern counterpart through the fully visible unarticulated round elevator tower on the northwest corner that extends the height of the tower. On the eastern corner two other castle-like towers occur. A semicircular tower three window bays wide rises six stories and ends with an open deck and an arched crenelated roof cornice. From the third to the seventh story another small round tower with a peaked slate-roof is wedged between the main tower and the semi-circular one, serving as passage way between the two large towers at the upper floors.

At the base of the battered tower steps lead up to a masonry entrance porch fit between the walls of the semicircular tower at the east and the east wall of the Great Hall. At second floor level the deck becomes an open sleeping porch with a shed roof of wood shingles supported by pairs of stone columns. The entrance door portico features carvings and inscriptions that represent the family and symbolism of the Pitcairn's faith. Above the double door of glass and Monel designed in an Art Nouveau manner is a grand arch in which eight lambs are carved in relief, representing each of the children of Raymond and Mildred Pitcairn. Each child's name is incised on the edge. The name GLENCAIRN (derived from Mildred Glenn and Raymond Pitcairn) appears in the pediment under a ewe and ram representing the parents. A tree of life grows between the animals. Between corbelled stonework of the windows at the seventh floor the ewe and ram and the faces of Mildred and Raymond are sculpted again.

Farther east of the main entrance and tower complex is a five-story gable-roofed extension with a northern perpendicular wing of three stories for a porte cochère. The latter is finished with a jerkin-head roof and features a large window with a small balcony below. This eastern wing of the complex provided apartment quarters for staff and connected with the principal kitchen and pantries on the south side of the building off the dining room in the Upper Hall. Viewed westward the architectural mass of this northeast side of the building is a highly asymmetrical configuration in which nothing is the same except a similarity between the east round window of the fifth-story chapel and the enormous rose window in the east façade of the Great Hall.

Interior

While the outside stonework of Glencairn is relatively monotone and unornamented except at column capitals and special locations, the interior of the building presents a completely different effect. Although walling is generally laid-up cut stone, the use of a wide variety of reflective decorative materials in the room spaces creates a panoply of textures, colors, and luminescence intermingling with both flat and carved stonework. The

⁴ These eagles were carved by two different workers, Benjamin Tweedale and Pietro Menghi, and subsequently named "Benny" and "Pete."

BRYN ATHYN HISTORIC DISTRICT**Page 37**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

decorations range from large stained glass windows to glass mosaics on walls and ceiling beams; colored ceiling tiles; molded concrete tinted with ground glass; carved and polished teak for doors; cherry wood for cabinets; teak planking on floors; Monel metal for window frames, hardware, and light fixtures; copper or bronze sheathed doors, and often authentic medieval sculpture. Pitcairn designed Glencairn in part to house his collection of statuary and stained glass, and statues were often carefully built into niches and alcoves. The inside of the building is thus a masterful *mélange* of innovative construction and design in Pitcairn-style medieval architecture that deviates from the rectilinear by using softened angles and unequal wall lengths. Interior finishes were wrought by craftsmen dedicated to reproducing medieval techniques and experimenting with new finishes to achieve a family home often open to the Bryn Athyn Community.

The most grandiose and magnificent spaces of the house are on the first floor and were intended for both the family and public occasions. Use of opaque glass mosaics is the predominant decorative finish applied to the masonry. The tower entrance door labeled “Glencairn” brings one into a lobby facing a beautiful paneled teak staircase with unusual treads and risers made of solid blocks of wood. Carved bas-relief medallions depict the growth of a family as the staircase rises. The walls glisten with a background of yellow mosaics in which colored medallions symbolically represent man, family, nation, government, and church. A timber beam and joist ceiling of the same wood features gold inscriptions written on the sides of the beams. An entrance from the *porte cochère* brings one into a room east of the lobby in the base of the semi-circular tower. This room is called the “Bird Room” for its mosaic rendition of a beautiful white peacock with spread wings in an arched recess in the south wall. Within quadrates on the ceiling other birds are depicted in mosaic medallions to represent symbols for the three planes of life in the Swedenborg doctrine—natural (barnyard fowl), spiritual (peacocks and birds of paradise) and celestial (doves).

Mosaics in the Great Hall also achieve a lustrous aura and are noticeable immediately after entering through the main north entrance door. Straight ahead on the south wall of the Great Hall and raised up three steps stands a Gothic portal framed in a rectangle of glistening mosaic and reaching a third-floor balcony supported by animal carved corbels. The tympanum of a rounded arch behind the balcony is filled with mosaics depicting a crowned couchant lion holding keys to the heavens. The background is blue with gold stars. From this lion to the base of the large portal the iconography in the mosaics represents the seal of the Academy of the New Church and its respective symbolism from the Old and New Testament. The design work surrounding four medallions and inscriptions is both geometric and intertwining floral patterns, all reminiscent of Celtic work. The rafters and trusses of the poured concrete roof, which peaks at eighty feet above the floor, are similarly covered with the colorful mosaics of intertwining knots, scrolls and figures of eagles, lions and serpents, plus golden inscriptions on the sides of the trusses. Contrasting with this, in the flat ceiling panels, for acoustic purposes Pitcairn selected blue tiles in a variety of shades. Gold mosaic stars on the tiles fill the ceiling with the impression of the sky.

The stained glass windows and their configurations in the walls of the Great Hall are the other medium that provide magnificent color and represent both medieval work and twentieth-century replications. In the three east wall lancet windows Pitcairn built-in glass panels from his medieval collection. The twelfth- to thirteenth-century medallions in the two northern windows have a provenance from the pillaged Abbey of Saint-Yved, Braine, France. In the southern window two splendid panels come from the Abbey of Saint-Denis and were part of the Pilgrimage of Charlemagne created under Abbot Suger in 1150. The large rose window above the French work was designed and produced in Bryn Athyn and depicts the Rider on a White Horse from Revelations.

On the north and west walls the work of the Bryn Athyn Glass Studio produced a new triumph. The windows are full-scale reproductions of six lancet windows in Chartres Cathedral, some of which reach the height of

BRYN ATHYN HISTORIC DISTRICT**Page 38**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

twenty-two feet. Pitcairn had purchased nineteenth-century tracings of five of these windows in 1925 before Glencairn had even been designed. The building grew around his goal of replication. To obtain the sixth window, in 1932 scaffolding was installed on the Chartres Cathedral's exterior and tracings were made for duplication in Bryn Athyn. While the pleasurable reason for having these beautiful medieval artistic works within his own home was clear, Pitcairn also considered the reproductions to have critical artistic and historic value, in light of damages to property experienced during World War I. The process of recreating the pot metal glass production techniques and exceptional colors had been learned during the Bryn Athyn Cathedral construction. For Pitcairn, the new challenge was reproducing the work of diverse medieval French masters whose artistry was often individualistic and not uniform. Critics of the time praised the accomplishments of the designer, Winfred Hyatt, for the perfection of the reproductions from the Old and New Testament, but truth be told, he purposely altered some of the images to fulfill Swedenborgian representation and symbolism. Additionally, in the round west window, across from the east rose window, the advent of the New Church of Jerusalem is further represented by Hyatt's rendition of John's vision of a Woman with a Crown of 12 Stars.

Another special room in Glencairn featuring mosaics, stained glass, beautifully carved stone, and luminescent wood is the family chapel on the fifth floor. In contrast with the immense open space of the Great Hall, the small stone six-sided space with symbolic stone carvings is illuminated with three stained glass windows and a glorious ceiling of glass mosaics depicting an apocalyptic scene with four winged creatures in a background of blue sky and stars. In the top panel is a golden sunburst and four doves in flight. The craftsmanship, symbolism, and radiant materials create an exceptional space.

The bedrooms in the house were normally finished with plaster, leaving stone work exposed around doors and windows. Elegantly finished wooden doors and baseboards add warmth. Two are exceptional for their artistic merit and craftsmanship. Michael's Room is up a few steps from the chapel and retains a unique mural painted by Bryn Athyn artist Frank Snyder. To prepare an adolescent for life ahead he used texts from the doctrine of *Charity* and images of American society to teach faith, morals, values, and ethics.⁵ Snyder's painting technique was unusual. He applied a white base to the surface and then painted images with semi-transparent oil glazes, often achieving soft green and blue landscapes. Running golden text at the base links both the scenes and blocks of inscriptions in gold. The mural features the distinct style evident among Works Progress Administration artists, and with its twentieth-century depictions, is a radical contrast to the medieval architecture and art throughout the building.

While the bedrooms are now used for gallery or administrative purposes, the Pitcairns' master bedroom still displays most of its original furnishings, all beautifully handmade in different woods. Set under a stone arch protruding from the white plastered wall is the Pitcairns' beautifully carved teak bedstead, which features an inscription of love around the frame. Most impressive in this room is the gable-peaked, wood-paneled and coffered ceiling with three intertwining layers of polished wood beams. The adjoining bathroom that leads to the sleeping porch gleams with polished marbles in beiges and greens for both curvilinear sinks and bathtubs. Here small golden tiles used decoratively between two colors of marble were designed to fit and look handmade by use of a cookie cutter.

Steps away from the master bedroom was Raymond's library, a grand stone room of two-story height with a timber frame ceiling, a massive free-standing fireplace wall and chimney, and a hand-carved wooden balcony supported by masonry corbels above the fireplace. Gothic arches are inset into stone Roman arches and

⁵ A discussion of the *Charity* text and a complete presentation in facsimile of this mural is presented in a fold-out in E. Bruce Glenn, *Glencairn: The Story of a Home* (Bryn Athyn, PA: Academy of the New Church, 1990), 84.

BRYN ATHYN HISTORIC DISTRICT**Page 39**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

wooden bookshelves line the walls. The height creates a loftiness, but the narrow room dimensions and the view to the Cathedral achieve an intimate, cozy, space for intellectual pursuits.

Exquisite artistic and unusual construction techniques and design media make Glencairn one of the rare architectural feats of America. Small details or elements in the building vary from one floor to the next, achieving a cornucopia of Arts and Crafts techniques. Two different staircases are cases in point: At the second floor, wooden balustrades in tiger's eye maple with turnings and incising achieve a regular inconsistency. The newel posts reflect different carving treatments and forms, but all hand crafted. On the third floor, the staircase employs a new technique: preformed concrete panels and ground glass and concrete pressed into a molds to create different bird images installed as panels on a staircase.

Integrity

Without concern for expense much is achievable, and expense appeared not to be a constraint for the Pitcairns. More importantly, at Glencairn it was the love of the art, the joy of the craft, and the challenge to create an old process or to invent a new one in achieving an innovative or more profound artistic or architectural goal. Faith, symbolism, and a dedication to life and community are interfused with the enthusiasm for medieval forms at Glencairn. This has been continued to the present day through conversion of the residence into a museum that fully displays the Pitcairn collection within the building's upper rooms, as well as in the basement galleries. Minimal changes to the building have occurred, such as enclosure of the arches of the north porch with glazing to create an interior vestibule. Additionally, a block addition to the west exterior cloister wall serves as an Archive and large artifact or rug storage area. It has had no impact on the original construction and is disguised by plantings. Glencairn remains fully intact as a rare contribution to architecture and art with exceptional integrity of materials, association, and sense of place from its construction date to the present.

Summary List of Contributing Resources**Buildings (14)**

Cairnwood—House (1892-95); Garden House (1895, renovated into the Archives, 1989); Stable, Carriage House and Coachman's Quarters (1895); Garage, Chauffeur's Residence, and Studio (1911)

Cathedral Complex—Bryn Athyn Cathedral (1914-1929); Ezekiel Tower with Council Chamber and Undercroft (1920-26); Michael Tower, Choir Hall, and Choir Vestry (completed 1929); Metal Shop (sometime between 1914 and 1924)

Cairncrest—House; Solarium; Laundry; Garage and Chauffeur's Quarters; Former Greenhouse Heating Plant Building (all ca. 1926-28)

Glencairn—House and cloister comprising present museum (1927-38)

Structures (7)

Cairnwood—Terrace; Wall, Entrance Gates, Block Houses, and Pergola (all by. 1895)

Cathedral Complex—West terrace and seating; East terrace and seating (both ca. 1929)

Cairncrest—Pergola (now a covered walkway); Pool Gazebo and Terracing (both ca. 1926-28)

Glencairn—North Terracing and Fountain (ca. 1938)

BRYN ATHYN HISTORIC DISTRICT

United States Department of the Interior, National Park Service

Page 40National Register of Historic Places Registration Form

Non-contributing Buildings (3)

To the north of the contributing Metal Shop stand three non-contributing post-1960s buildings. The L-shaped sculptor's workshop and shed is a more modern building composed of concrete block, topped with a gable roof of asphalt shingles, and featuring overhead garage doors. On a site below are two concrete-block garages, one with two garage bays and a flat roof, one with four and a gable roof.

BRYN ATHYN HISTORIC DISTRICT**Page 42**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.**Introduction**

The Bryn Athyn Historic District is nationally significant as a rare and outstanding demonstration of art and architecture that evolved as a product of the American Arts and Crafts Movement. John Pitcairn, the founder of the Pittsburgh Plate Glass Company, set the stage for the growth of Bryn Athyn with the purchase of land for a Swedenborgian enclave outside Philadelphia. He introduced architectural design into a rural landscape with the construction of a residential complex in the Beaux-Arts tradition ("Cairnwood," 1892-95) that merged finely crafted elements composed of American materials with such modern products as plate glass. In addition to John Pitcairn's general attention to architectural detail and insistence for quality construction, the family chapel in Cairnwood's tower—designed of natural red wood with a painted ceiling—laid the groundwork for a deeply individualistic artistic spirit and high-quality production at Bryn Athyn. Over the next decades, he fostered the growth of the school system and community, reaching his final goal with the construction of a massive Gothic Revival Cathedral (1914-1929). Under the direction of his son Raymond, it was built by hand using craft shops and construction principals inspired by the guilds of medieval Europe. This important aspect of the campaign was a direct outgrowth of the Arts and Crafts Movement of the time, but also addressed the pictorial symbolism of the Swedenborgian faith and its sensitivity to nature. The artisans brought to Bryn Athyn to carve the stone and wood, work special metals, and produce stained glass from medieval treatises for the Cathedral later served the construction of nearby homes for John's sons Harold ("Cairncrest," 1926-28) and Raymond ("Glencairn," 1927-38). Family wealth enabled the success of a familial, communal, spiritual, and artistic venture that progressed even during the depths of the Great Depression. The period of significance spans from the beginning of design and construction of Cairnwood in 1892 through the completion of Glencairn in 1938. The NHL Exception 1 for properties owned by a religious institution is met because the buildings in the district are significant for their architectural and artistic values, not those related to religion. The district meets Criterion 4 by containing buildings distinguished by unconventional building methods for twentieth-century construction, which craftsmen developed on-site as part of the prevailing Arts and Crafts Movement. These buildings include the Metal Shop, an original workshop for artisans.

Complementing the property's high level of integrity, the Bryn Athyn Historic District stands out nationally within the Arts and Crafts Movement as a unique venture because the craft shops and artisans worked solely for the Pitcairns and initially only for a sacred purpose. Other idealistic Arts and Crafts enclaves such as the Roycrofters, in East Aurora, New York (the "Roycroft Campus," NHL, 1986), and Craftsman Farms, Parsippany, New Jersey (NHL, 1990), were established so that artists could live and work together to produce handcrafted products and promote their sale or reproduction through craft workshops.⁶ At Bryn Athyn, the initiative focused on the philosophy of individualistic artistry, mixing both revived medieval and innovative production methods, as expressed in a range of architectural or artistic media, but without a commercial goal. The architectural resources of the Bryn Athyn district continue to serve important community functions. The Cathedral of the General Church of the New Jerusalem is its place of worship. Cairncrest is used for the General Church administrative offices, and Cairnwood has been restored for conference and special event usage. Glencairn, is now the "Glencairn Museum," exhibiting Raymond Pitcairn's medieval artifact collection and allowing access to the home's

⁶ For recent information on the Roycrofters and Craftsman Farms, see: Robert Rust and Kitty Turgeon, *The Roycroft Campus* (1999) (Charleston, SC: Arcadia, 2004), and Mark A. Hewitt, *Gustav Stickley's Craftsman Farms: The Quest for an Arts and Crafts Utopia* (Syracuse, NY: Syracuse University Press, 2001).

BRYN ATHYN HISTORIC DISTRICT**Page 43**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

unusual architecture, mosaics, tile, stained glass, furniture, and associated decorative arts. As in the past, Glencairn also hosts community events and performances and has become an educational resource on art and architecture for students of the Academy of the New Church in Bryn Athyn. Beyond the district's borders, the surrounding residential neighborhood from the first quarter of the twentieth century reflects many of the same aesthetic and artistic values as owners and craftsmen added their artistry to private homes.

The Bryn Athyn Historic District must be reviewed contextually in America not so much in direct comparison with Arts and Crafts communities that struggled to survive financially and were overwhelmingly short-lived, but with other visionaries and promoters of the Arts and Crafts Movement who had the financial resources to sustain a large craft program. In the case of the Pitcairns and many of their staggeringly wealthy contemporaries, their financial ability to pursue such an artistic avenue came from industry. One of the other major sources of American fortunes at the time was newspaper publishing, and John Pitcairn's actions at Bryn Athyn are directly analogous to the life and goals of George G. Booth, president of the *Detroit News* and founder of the Detroit Arts and Crafts Society. Detroit's star architect, Albert Kahn, designed "Cranbrook," an estate house for Booth in 1907; its design was greatly influenced by Arts and Crafts ideals filtered through both men. Two decades later, Cranbrook developed into an architectural landscape expanded and designed in large part by Eliel Saarinen to house an innovative education facility structured to cultivate an appreciation of the arts. The Cranbrook Academy was designated a National Historic Landmark in 1989. A second useful comparison can be made with Henry Chapman Mercer of Doylestown, Pennsylvania, who achieved a unique personal success in the architectural achievements of his home Fonthill, built between 1908 and 1910 using hand-mixed concrete to construct an Arts and Crafts castle. Additionally, his Moravian Pottery and Tile works established by 1912 supplied handcrafted tiles to local builders of the time, including the Pitcairns. Mercer's architectural construction of the Mercer Museum from 1913 to 1916 to house his collection of American tools in a seven-story building of reinforced concrete precedes but parallels Raymond Pitcairn's construction materials and designs of Glencairn. Mercer's three components were named a National Historic Landmark district in 1985. The historic contexts surrounding the development and history of the Bryn Athyn district and the uncommonly high physical integrity of its contributing buildings are significant on a level equal to these National Historic Landmarks.

Early History of Bryn Athyn and Development of Cairnwood

The story of Bryn Athyn begins with John Pitcairn (1841-1916), a self-educated immigrant from Scotland who became an entrepreneur and industrialist. His greatest achievement was founding the Pittsburgh Plate Glass Company, the first American manufactory of its type, for which he became president and chairman of the board. After arriving in Pittsburgh from Scotland, Pitcairn was baptized at the age of five into the Swedenborgian Church of the New Jerusalem. Swedenborgian doctrine and belief fostered strong educational and religious impulses that shaped Pitcairn's later activities. By baptism, he became a member of a religious society that had been founded in London in 1788 based on followers of the theology, doctrine, philosophy, and scientific writings of Emanuel Swedenborg of Stockholm. In 1817, seventeen "societies" existed in America.⁷ Together that year they formed the General Convention of the New Jerusalem in the United States at Baltimore to

⁷ For contemporary information and basic history of the Swedenborgian faith, see: "The Swedenborgian Church of North America," online at www.swedenborg.org. For recent outside analysis, see: *Reinventing Christianity: Nineteenth-century Contexts*, ed. Linda Woodhead (Burlington, VT: Ashgate, 2001).

BRYN ATHYN HISTORIC DISTRICT**Page 44**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

regulate ordination and missionary work. By 1850 Swedenborgian churches had been built from member contributions and missionaries were spreading the word of spiritual truths and freedom in social, moral, and political matters. Spiritualism and transcendentalism, especially the nature of life after death, were aspects of the religion that often attracted intellectuals, writers, and artists. One missionary, John Chapman, otherwise known as Johnny Appleseed, planted apple seeds as he traversed the Midwest spreading Swedenborgian publications while he planted.

John Pitcairn left home at fourteen to become a railroad clerk; his great capacity for learning and steadfastness contributed to a rapid rise through the hierarchy of the railroad and oil industries. He traveled across the United States and Europe, gaining industrial knowledge and making important acquaintances. Additionally his contacts and discussions with ministers, spiritualists, and members of the New Church broadened his religious understanding and furthered missionary goals. His role as a missionary was intellectually based and deeply founded in his readings of Swedenborg's writings and doctrines as well as the works of other theologians. In Pittsburgh, he lent financial support to construction of an Academy to serve as a Swedenborgian teaching institute. After his arrival in Philadelphia in 1874, he repeated the process through his lay leadership and industrial successes of the 1880s, establishing the Academy of the New Church on Cherry Street for boys, girls, and theology students.

In 1884, Pitcairn married church member Gertrude Starkey in a double wedding with her sister. The newlyweds established their home on Spring Garden Street within their church community. Pitcairn devoted a great deal of time to his newly formed Pittsburgh Plate Glass Company, traveling often between the two cities. In 1889, spiritual and educational beliefs caused him to seek a more suburban environment for his growing family and a site where he could build a larger Academy for the New Church and encourage Swedenborgian followers to settle in their own community. His goal was a setting where the church and its members could express themselves freely both in worship and other aspects of life as well as focusing on education. Newly expanded suburban railroad lines into rural Montgomery County beyond Philadelphia opened the doors to Alnick Grove and Beth Ayres along Pennypack Creek. The pleasant countryside had already served church members for summer activities. With the encouragement of his brother-in-law and realtor, Robert Glenn, Pitcairn initially purchased a farmstead of thirty-five acres. Satisfied with the area, he eventually purchased another 500 acres for a campus-based educational site and suburban neighborhood for New Church members.

Pitcairn's contact with high-style European and American dwellings led him to the well-known New York architectural firm Carrère and Hastings, who, in 1892, designed Cairnwood, locating it at the peak of a rise where the old farmhouse stood. Charles Eliot of the Olmsted landscape firm laid out a suburban neighborhood in the knoll below the rise west of Huntingdon Pike. The educational academy was planned for the fields east of the highway, but in the meantime a wood-frame building and temporary classrooms in residences served the community's educational needs. In 1895, they constructed a clubhouse, which was in use until 1901 when a masonry building, Benade Hall, was built on the designated academy site. The Academy of the New Church continued to develop into a full-service educational facility ranging from a kindergarten to a college and theology school, all of which is located across the highway from the Bryn Athyn Historic District.

With its choice, mostly native building materials, finely-crafted architectural details, durable construction, and use of such technologies as plate glass, Cairnwood had an assured impact on the subsequent development of an Arts and Crafts production center at Bryn Athyn. Although the aesthetic character and underlying principles of Beaux-Arts and Arts and Crafts design are unquestionably distinct, their emphasis on fine materials, exquisite craftsmanship, and concepts of total design grant them greater similarity than is evident on the surface. The choices that John Pitcairn made with the planning and realization of Cairnwood established the "architectural milieu" within which he and Mildred raised their children. As a product of the Beaux-Arts, Cairnwood stood

BRYN ATHYN HISTORIC DISTRICT**Page 45**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

out among its contemporaries, displaying Carrère and Hastings's stress on eclecticism in detail and variety in material types—two central elements in Arts and Crafts architecture.⁸ Completed by 1895, Carrère and Hastings conceived Cairnwood as a Beaux-Arts, French-style complex of three buildings with greenhouses, walls, and gates. Pitcairn worked closely with the architects selecting local and American building materials to achieve his aesthetic and financial goals. J. E. and A. L. Pennock, builders from Philadelphia were responsible for the construction.

John and Gertrude Pitcairn immediately moved in with their three children, Raymond, Vera, and Theodore. Harold, their youngest child, was born there. Around the same time, friends and members of the New Church from Philadelphia purchased the nearby suburban lots and built a wide variety of suburban residences. As their numbers increased, Pitcairn established a dairy and crop farm to serve the households. Cairnwood, with its own chapel in the tower for family services, served as an important social and architectural center for the fledgling community. They often used its large, two-story hall for social programs, concerts, and entertainment. By 1899, village leaders and Bishop W. F. Pendelton determined their burgeoning town needed a definitive name and a proper governing process. Its high elevation caused Pendelton to choose "Bryn Athyn," Welsh for the words "hill" and "cohesion or harmony"—a choice to describe both the topography and the spiritual life of the inhabitants. In 1916, the need for independent government and services caused the establishment of the Borough of Bryn Athyn.

Between 1897 and 1910, the church community and John Pitcairn's family faced challenges and losses. As an industrialist familiar with negotiating business deals, in 1897 Pitcairn succeeded in resolving internal differences about liturgical practice and points of doctrine among church leaders of the General Convention of the New Church. Different beliefs and practices caused a schism between lay members such as Pitcairn, other church leaders, and Bishop Benade. The result was the establishment of an independent General Church of the New Jerusalem in Bryn Athyn that seceded from the established General Convention. The site of Bryn Athyn began to assume a new and important role in leadership, which was fulfilled years later by the completion of the Cathedral under the direction of Raymond Pitcairn.

The Pitcairns were not without family tragedy. In March 1898, Pitcairn's wife, Gertrude, died unexpectedly of appendicitis, leaving four young children; a distant relative became the loving housekeeper at Cairnwood. Twelve years later, Vera, John's only daughter, died of the same sudden infection at only twenty-three. Pitcairn's faith in the after life lent him strength in his sorrow. Their was joy intermixed in the sadness. In December 1910, Raymond, John's eldest son and a practicing lawyer, married Mildred Glenn, daughter of John's brother-in-law, Robert Glenn. The commodiousness of Cairnwood meant the couple could take up residence in the main house. However, within two years, to accommodate the automobile and a chauffeur's quarters, a large new building was designed by the Philadelphia firm Duhring, Okie & Ziegler across from the stable on the east side of Huntingdon Pike. Raymond assured that the building blended with the design of the manor house and planned for a private "studio" space on the second floor for social gatherings, musical events, and artistic endeavors for himself and Mildred. The evolution of this studio brought Raymond directly into the process of working out architectural design through manipulation of the building materials and direct control of the contractors. The craftsman designs he achieved in this space through open wood beam ceilings, a large stone fireplace, and leaded glass windows brought architectural experience that helped him evaluate a method for the design of the Bryn Athyn Cathedral—a second major project in establishing Bryn Athyn as the seat of the New Church and the practice of Swedenborgian beliefs.

⁸ Jean K. Wolf, "Cairnwood," National Register of Historic Places Registration Form, National Register Archives, Washington, D.C., 2000, Section 8, 11-15.

BRYN ATHYN HISTORIC DISTRICT**Page 46**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Bryn Athyn Cathedral Development

When the congregation of approximately 300 outgrew the chapel in Benade Hall, church members and John Pitcairn proposed a separate house of worship as both the Episcopal seat of the General Church and also a parish church. Modest planning began in 1907 in conjunction with a new school building, and Pitcairn deposited \$30,000 into the building fund for the church. Ultimately, the school building was deemed more critical and in 1908 they selected architect Henry Reinhold for the new Academy building; Pitcairn underwrote much of this cost as well. In 1911, the Building Committee reinitiated church planning and selected the knoll below Cairnwood on Paper Mill Road (now Cathedral Road) for its location. Early in 1912, the committee asked Lawrence Vissher Boyd, a Philadelphia architect, to prepare conceptual designs based on specific, innovative religious objectives for the building. Plans and a model were ready by October, but neither John nor Raymond Pitcairn was comfortable with Vissher's design. Instead, traditional ecclesiastical architecture became the new focus, and Raymond, a devotee of Gothic architecture and a committee member, offered to contact Ralph Adams Cram of the Cram, Goodhue & Ferguson firm, Boston. Cram was considered America's leading designer of Gothic ecclesiastical architecture. In 1913, Cram visited Bryn Athyn and subsequently submitted plans and a model about which there was much enthusiasm. Bishop Pendelton and the Pitcairns worked with the architect to incorporate modifications and identify contractors; however, from that point forward the project took on a different focus.

In keeping with Swedenborgian religious tenants, Raymond wished to create a hand-tooled Cathedral that derived its beauty from natural, crafted materials that were symbolic to the religion. He conceived of medieval craft guilds working at the site, something Cram even concurred with. This did not follow common twentieth-century construction practices or the usual budgetary constraints, but the Pitcairn's wealth allowed the fulfillment of artistic and religious objectives to take precedence. Raymond set aside his law practice and immersed himself in a building project based on medieval guild organization. Edwin T. Asplundh, an engineer and community member, stepped forward to serve as supervisor of construction. The search for appropriate local materials and specialized craftsmen to fulfill a shop system progressed and Cram supplied an architect to work on site. Ground was broken in the fall of 1913 and the cornerstone was laid on June 19, 1914, with great ceremony.

As the project evolved, Raymond cultivated his ideas for building materials and methods of construction that conformed to medieval practices rather than to typical construction. He sought a great architectural work created by artists and craftsmen working in unity toward a communal whole, echoing the great Cathedral projects of Europe.⁹ Perfection in design, dimension, and materials would be resolved through trial and error, models of all scales, molds and castings, building-up and tearing down, and workers' and supervisors' approvals would become the norm. Merely following an architect's construction drawings or expecting industrial precision was never a goal. Through pride in workmanship, creative ideas from the craftsmen themselves, use of symbolism from the biblical word, and medieval "refinements" or built-in imperfections related to geometry or hand-tooling, the Cathedral evolved as a masterful, unique, work with resplendent, hand-wrought stone, wood, metal, and stained glass. Many artists and craftsmen set up studios or lived in the community. Italian masons came by railroad from South Philadelphia, creating a workforce that ranged in the hundreds. John Pitcairn followed the progress, but traveled on business while Raymond directly oversaw the construction. John died in July 1916, never seeing the Cathedral completed.

By the time of John's death, Raymond was fully in control of the project and Cram had lost any directional authority. On March 1, 1917, Cram's services with Bryn Athyn Cathedral were terminated. He attempted to

⁹ For individual discussions of the Bryn Athyn studios and shops, see Section 7.

BRYN ATHYN HISTORIC DISTRICT**Page 47**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

return to the project through a letter of May 4, 1917, that offered a different contractual plan to Raymond, stating: "Probably no building ever constructed has had so many sketches, working drawings, and details prepared as has been in the case of the Bryn Athyn Church."¹⁰ (These had caused financial inequities in the contract, according to Cram.) Cram explains his own personal reasons for wishing to return to the project and to become part of the grander scheme for Bryn Athyn:

I have taken a greater interest in the Bryn Athyn Church than in any other piece of work that has ever come into the office. In its inception and its working out, it has been unique, not only in my own experience, but I believe in the architectural history of the last 400 years. I can say with perfect truth that from the beginning I have lived with and in this project as never happened before and can never, in all probability, happen again. The whole project stood by itself. I found in it the opportunity to do real architecture under conditions that had not existed for several centuries, and from the beginning I have looked on it as the first step toward the redemption of modern architecture.¹¹

Raymond never accepted the offer from Cram despite the fact that he now held his father's position at Pittsburgh Plate Glass, doubling his responsibilities. In 1918, Cram published his experience with the Bryn Athyn Church and presented a critique of the difficulty in balancing architectural control with the fluidity of inspiration and design of local craftsmen.¹² Raymond's written response remains unpublished.¹³

With the tower finally completed, the community dedicated Bryn Athyn Cathedral on October 5, 1919, but the building was by no means complete. It was another ten years before both side wings were finished on a Romanesque Revival design, the interior furniture completed, and all stained glass windows in place. The craft studios and their output that became a presence and contribution to the Bryn Athyn community were not turned idle by the completion of the Cathedral. Two new architectural achievements blossomed in the town.

Aviator Harold Pitcairn and Cairncrest

Harold Pitcairn (1897-1960), John's youngest son, became an aviator, businessman, and inventor. In 1923, he returned from the Midwest to Bryn Athyn with his wife Clara to continue experiments on agricultural machinery. A wing of the stained glass manufacturing shops provided a drafting office where Agnew Larsen, a World War I aviation engineer, perfected Pitcairn's sugar beet planting machinery and tinkered with the creation of vertical-lift propellers, later known as autogiros. To commute between his sugar beet agricultural enterprise in Michigan, Harold determined air transportation was the wave of the future and chartered a pilot and plane; this decision inspired him to return to flying himself. By 1924, he had established Pitcairn Aviation, was furthering airplane designs in the Bryn Athyn shop, and had purchased agricultural fields in a neighboring borough that he made into Pitcairn Field.¹⁴ The skies over Bryn Athyn became filled with bi-planes for charter and tourism, yet Harold Pitcairn was not making money. Planes had to be bigger and faster, and Pitcairn set his staff to produce a plane for use during the Sesquicentennial Exhibition in Philadelphia (1926).

¹⁰ May 4, 1917, copy of letter from Ralph Adams Cram to Raymond Pitcairn. Bryn Athyn, Glencairn Archives, Cathedral, Box 2, Construction, File: Cram Dispute.

¹¹ Ibid.

¹² Ralph Adams Cram, "A Note on Bryn Athyn Church," *The American Architect*, 113 (May 29, 1918): 709-712.

¹³ Bryn Athyn, Glencairn Archives, Cathedral, Box 2, Construction, File: Raymond Pitcairn's Notes, Drafts, Letters to Cram.

¹⁴ Harold Pitcairn is identified as one of the pioneers of rotary flight in the National Park Service's *American Aviation Theme Study: Identifying and Evaluating Nationally Significant Sites in U.S. Aviation History*. Pitcairn Field is one of the properties identified in this study, however, the field lost integrity upon its conversion into a naval air station. Pitcairn's residence, Cairncrest, and the stained-glass studio, are identified in the theme study under the NHL study list for their association with the development of rotary-flight technology in the United States.

BRYN ATHYN HISTORIC DISTRICT**Page 48**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Although his first “Fleetwing” bi-plane crashed, eliminating him from the Exhibition bidding, Harold did not stop advancing his aviation goals. In 1926, however, he added a second major enterprise to his life. Under the direction of architects Wetherill P. Trout (1874-1955) and Robert Llewellyn Price (1896-1970) of Bryn Athyn, a classmate of Harold’s, designs were drawn for a large, Norman-style manor house to be nestled into the hillside northwest of the Cathedral and named Cairncrest. Harold’s massive structure with angled and irregular wings plus a prominent tower included a solarium and connecting greenhouse, a chauffeur’s quarters and garages, and a terraced swimming pool and gazebo. Construction methods differed from the Cathedral. The infrastructure was poured concrete, hollow tile, and gypsum block and the visible exterior walls were all faced with locally quarried stone. The windows are nearly all Monel metal casements. Practically every interior room exhibits hand-wrought finishes typical of the Arts and Crafts Movement—achievements of artisans from the Bryn Athyn Cathedral construction. Beamed ceilings are of hand-hewn timbers, decorative plaster work is painted with Swedenborgian symbolism, finely finished wood paneling, cabinetry, and elegant handmade clay tiles, metal work, and leaded glass are among the decorative elements evident in every room.

In 1928 when the house was finished, Harold Pitcairn was running four different aviation businesses from an office in his home: the Bryn Athyn aircraft factory, a sightseeing air operation from Willow Grove and allied airfields, airplane engine research, and continued experiments with rotary wing flight, for which he already held a patent. In January 1927, he won a contract for an Air Mail route between New York and Atlanta—this venture eventually became Pitcairn Aviation. Harold survived on challenges, and his Cairncrest development of the autogiro, often in collaboration with the Spanish aeronautics engineer Juan de la Cierva, brought him great success with over nineteen patents in his name. In 1929, the Pitcairn-Cierva Autogiro Company of America was licensed to manufacture autogiros under Cierva’s patent. These early precursors of the helicopter frequently took off and landed from Cairncrest. Pitcairn’s talents and development of the autogiro were recognized in 1931 by President Herbert Hoover on the White House lawn through awarding Harold the coveted American aviation honor, the Collier Trophy. To further the development of the autogiro, Harold sold Pitcairn Aviation, which became Eastern Airlines by 1934. During World War II, Pitcairn Field became government property and was absorbed into the Willow Grove Air Station. Harold’s last challenge in life was bringing suit against the United States: he learned that his patents for his Autogiro Company of America had been disregarded by the U. S. Navy. After twenty-six years of litigation, in July 1977, the U. S. Supreme Court awarded Harold Pitcairn over thirty-two million dollars in damages, royalties, and delayed compensation. Harold never enjoyed the victory, though, as he had tragically accidentally shot and killed himself seventeen years prior in his office at Cairncrest.

Clara Pitcairn lived out her life in Cairncrest, but willed the elegant spacious home to serve as offices for the General Church. Despite interior modifications for code and institutional use, the integrity of the architecture remains intact. The major losses are the greenhouse and the swimming pool, now filled. The garage has an added block wing that serves as an office for publications. The grand mass and tower of the exterior, and the house’s interiors, wonderfully fashioned by the craftsmen who constructed the Bryn Athyn Cathedral, embody the artisanry characterizing the Arts and Crafts Movement.

The Final Campaign: Glencairn¹⁵

Raymond Pitcairn and his family lived at Cairnwood while the Cathedral and Cairncrest were being built. As the ecclesiastical project concluded, Raymond began planning for a studio or building to hold the collection of medieval and Gothic artifacts he had acquired since 1916 for the church craftsmen to use as models and

¹⁵ See Glenn, *Glencairn*, for a focused discussion of the design and construction of Glencairn.

BRYN ATHYN HISTORIC DISTRICT**Page 49**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

inspiration. In 1927, Raymond realized that the artifact collection could become part of a new house that embodied Swedenborgian beliefs and could become a family home shared with the Bryn Athyn community. The craftsmen from the church construction remained on the site, working on Cairncrest, providing an instant work force. He immediately devised a model for the building—a grandiose structure with a tall, square tower—and chose Glencairn for its name, a combination of his wife Mildred’s maiden name (“Glen”) with the last portion of his. As work on both the Cathedral and Cairncrest wound down in 1928, Raymond shifted the artists’ and craftsmen’s time to his new project. The foundation was partially excavated when the stock market fell, immersing America into the Great Depression and bringing construction temporarily to a halt. Raymond soon rationalized that by progressing gradually, progress could be made, and the workers reinvigorated and retained; with this, he recommitted himself to his goal. Raymond did not use working drawings, but worked from scaled and full-sized models, often redesigning as the building unfolded. Glencairn took ten years to build with everything crafted at the site by dedicated artisans who developed new methods and techniques to fulfill Raymond’s artistic, symbolic, educational, and spiritual goals. The community gathered on December 19, 1937, for Glencairn’s dedication, and the family occupied the house within a few months.

The massive Romanesque Revival building of four full stories plus a tower of five additional stories contains eighteen bedrooms, thirteen bathrooms, and ten washrooms. The tower room, reached by the main elevator, provides a fantastic view of the neighboring landscape and the skyline of Philadelphia. The building is T-shaped with an open cloister at the western end. Pitcairn defied symmetry and regularity with rectangular, square, hexagonal, and apse-like spaces, intended to soften the angular stonework. The voluminous four-story “Great Hall” has a roof and trusses of shaped and poured concrete. It is lit by stained glass windows and walls of shimmering glass mosaics. At one end is a raised, two-story “Upper Hall” with a magnificent fireplace and areas for dining and family living. A kitchen, pantry, and entrance foyer with an adjoining room decorated with mosaic birds and a magnificent peacock with spreading wings complete the first floor.

The third and fourth floors comprise the bedrooms and three sleeping porches for the Pitcairns and their eight children. On the third floor a soaring library fills the apsidal space over the Upper Hall, reaching up to a hand-wrought beamed ceiling. The expanse of stone walls is relieved by clear and colored-glass in the windows, cherry bookcases, a carved teakwood balcony over the arched fireplace, and a fifteenth-century tapestry. A paneled wooden door leads to the master bedroom, which features a hand-carved bedstead and built-in furniture made specifically for Mildred and Raymond, and a bathroom fitted with highlights of gold tile. All tile was hand cut to fit and especially to soften the edges for bare feet. On the fifth floor to the east in its loftiest position is the apse-like hexagonal family chapel with stained glass windows and a repository for “The Word” or Bible. The sparkling ceiling of colorful glass mosaics, with gold tesserae laid partially at an angle to reflect the light, represents an apocalyptic scene of winged animals rising to heaven, here depicted with a sunburst and doves. Deep-colored and detailed stained glass windows reminiscent of (or copies of) medieval windows illuminate the stone walls where carved inscriptions of the Lord’s Prayer (in Greek) and the Ten Commandments (in Hebrew) represent the Old and New Testament. Michael’s Room, a short flight up from the chapel was designed for their son during his adolescent years and features a beautiful mural using the text from “Charity” with doctrinal words on how to live a full, productive, humanitarian, faithful life in the ways of the Lord. Each set of values and ethics are illustrated by images of scenes, memorials, institutions, or events of American life of the day, all frescoed at cornice level. From the windows of the room the spires of Bryn Athyn Cathedral and the roofs of the Academy educational buildings are visible, presenting an opportunity to ponder the goal of a utopian world of peace and prosperity for all.

In this setting of handcrafted teak wood, exquisitely designed hardware and door handles of Monel metal, and unique combinations of glass and masonry, and among medieval artifacts that decorate the castle-like mansion, the Pitcairns shared and enjoyed their family, daily worship, and communed with friends and members of the

BRYN ATHYN HISTORIC DISTRICT**Page 50**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Bryn Athyn community for special celebrations, educational programs, and evening concerts. The Great Hall was the perfect focus for such occasions. Mildred Pitcairn invited young girls from the community and from the faith as far away as Canada and Europe to live in the household, assist the family after school, and to teach cultural and spiritual enrichment. Raymond's artistic, religious, and cultural artifacts collected over time and decorating the household were used for educational purposes for students at the Academy. Mildred Pitcairn lived in Glencairn until her death in 1979 at the age of ninety-three. In 1980, the family foundation deeded Glencairn to the Academy of the New Church for use as an educational arts center and a repository for the collections of the Academy. It was renamed the Glencairn Museum and family bedrooms, except for the master bedroom, feature the museum collections. The Great Hall is still used for programs and concerts on a regular basis.

Later Pitcairn Generations

The importance of architecture and art and their creative usage was passed on to all generations of the Pitcairns, and other architectural contributions remain in the community landscape as well. Rev. Theodore Pitcairn, brother of Raymond and Harold, engaged Mellor Meigs and Howe to design his residence and outbuildings in 1930. Since then it has been expanded into another church complex. Architect Thaddeus Longstreth added to the complex for Garth Pitcairn in 1964. Lachlan Pitcairn's Colonial Revival residence was designed by architect John A. Bower in 1953. Feodor U. Pitcairn selected architect Richard Neutra in 1962 to design a modern residence on a prominent site for his family. These buildings, scattered in the landscape beyond the designated district, as well as other residences built by artisans, teachers, and religious leaders on the roadways south of the Cathedral before 1940, establish a cohesive continuum of the architectural and Arts and Crafts ideals of the property owners of this faith-based community of Bryn Athyn.

Construction Methods and Architectural Significance within the Arts and Crafts Movement

Of the four principal buildings in the Bryn Athyn Historic District only Cairnwood's construction resulted from a conventional construction firm with the help of local artisans, with the other three fully achieved by builders, designers, and artisans working in trade shops built and functioning on the premises. When John and Raymond Pitcairn committed themselves to the architectural development of Bryn Athyn, they were aware of the Arts and Crafts Movement of both Britain and America, particularly of the workshops of the Rose Valley Association near Media under William Price, of Gustav Stickley's Craftman Farms, and Tiffany's Studios in New York. The more distant architectural efforts of Greene & Greene in California produced a residence in 1907 in Pasadena for Robert Pitcairn, Jr., Raymond's cousin. The time was perfect for seeking artisans to fulfill Bryn Athyn's specific needs. The British movement, influencing the formation of the American, had been established by such British reformers such as John Ruskin and William Morris. There the promoters of the cause saw the movement as one related to society, not just an artistic end product. The movement was a harsh critique of the machine age and industrial production and offered an alternative—enjoying the freedom of creativity in the design professions and arts with the user similarly appreciating the quality of the work. In 1901, Stickley began publication of *The Craftsman* to define his philosophy of architecture and the landscape design and the use of natural materials, simplicity of style, joinery, durable materials, obtaining maximum comfort, beauty, and utility. In 1908, architect and designer C. R. Ashbee stated “The Arts and Crafts Movement means standards, whether of work or life; the protection of standards, whether in the product or the producer, and it means that these things must be taken together.”¹⁶

The craft studios and communities in America developed to fulfill the societal goal, creating villages

¹⁶ C. R. Ashbee, *Craftsmanship in Competitive Industry: Being a Record of the Workshops of the Guild of Handicraft, and Some Deductions from their Twenty-one Years' Experience* (London: Essex House Press, 1908).

BRYN ATHYN HISTORIC DISTRICT**Page 51**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

where artisans crafted the product and from which they were sold to appreciative buyers. Sadly, the weak link was the lack of discriminating buyers, production time, and the continual competition from industrial products. Arts and Crafts communities flourished and then faded, though architecture in this mode has been longer lasting. At Bryn Athyn, the ideal community for this societal concept of the Arts and Crafts existed in an unusual circumstance: the artisans were hired and paid to be creative and produce artistic works that were critiqued until they met a certain standard. The craft or artwork became part of a religious institution or household where the congregation or family applauded their beauty, relished their symbolism, and have since cherished the end product for living, communal gathering, and worship. Additionally, the Swedenborgian doctrine of an appreciation and love of the materials of nature, a respect for the individual, and a reverence for handmade and tooled products related directly with the goals of the Arts and Craft Movement of the time. The Cathedral and Glencairn were produced through the creativity and art of the craftsmen and the devotion and support of the Pitcairn family and the New Church community; Cairncrest's interior décor reflects the same ideals.

The manner in which this happened has often been referred to as use of the medieval guild or shop system. This process evolved as the Pitcairns sought to individualize the architecture of their church using local materials, unique alloys, and crafts that had been long forgotten to create a magnificent whole. Workshops in which a craft was defined, perfected, and applied by both designers and craftsmen to achieve the final handcrafted product allowed two unique and beautiful buildings to be built. Interestingly, Cram had offered the idea to Raymond Pitcairn in an early discussion on the construction process. As Raymond studied the concept of medieval church construction and learned how their beauty, creativity, and refinement had evolved, he became enamored.¹⁷ He had already been delving into this approach to design in his own studio at Cairnwood. It followed then that between 1913 and the completion of Glencairn in 1938 over 300 designers, craftsmen, superintendents, workers, and laborers worked on the construction of these buildings in Bryn Athyn. The project was implemented under the name of the "Bryn Athyn Studio of Building & Architectural Arts." In addition to opening a quarry along Pennypack Creek at the end of Quarry Road for procurement of local stone, the following work shops were established around the building sites: an architectural studio, north of the church; a stonecutting shed and sculpture shop near the current porte cochère of the church; a carpenter's shop, northeast of the church with a model shop below and a glass studio for Lawrence Saint; and a metal shop and blacksmith shop northwest of the church. The main glass studio (design and layout) was up the hill in the Garden House of Cairnwood, with the glass production shop across Huntingdon Pike near the present Assembly Hall of the Academy.¹⁸

Besides the architectural studio, initially under the direction of E. Donald Robb of Cram's firm, and the stone cutting shop, which throughout the construction process was actively involved with hand tooling of each stone embedded in the walls, the longest functioning shop was that of the stained glass studio. Here windows were designed, made and repaired long after the buildings were opened. Of all crafts, probably the most research and production and revision occurred in this studio and its associated glass blowing shop to perfect the final medium. The Pitcairn family was in the glass production business in Pittsburgh, but to recreate the colors, light refraction, and over-painting of medieval European Cathedral windows was a devotion of scholarship, trial, and ingenuity finally perfected at Bryn Athyn in the

¹⁷ Glenn, *Glencairn*, Chapter 3, "Design and Artistry."

¹⁸ A map made by A. Gunther in 1988 recreates the layout of this complex near the church. Bryn Athyn Cathedral, Box 2, Stained Glass Manufacture, Gunther, A.C. Accounts and payroll for workers and materials ran through the Bryn Athyn Stone Company of the Pitcairn family. Pringle Borthwick held the contract for the foundation work under Cram, and a statement of November 30, 1917 shows that by the completion of his work nearly half a million dollars, exclusive of costs by the owners, would have been expended.

BRYN ATHYN HISTORIC DISTRICT**Page 52**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1920s. Eventually it was carried to other twentieth-century ecclesiastical buildings by those trained on-site. Raymond's pursuit of the medieval process meant that he and his craftsmen traveled to museums and Europe to study the art and design in situ. Skills were expanded further by having treatises on glassmaking translated into English and purchasing fragments or panels of medieval windows for study and emulation.¹⁹

Stained Glass

The stained glass windows for both buildings and the extensive mosaic production for Glencairn involved two types of artists: the designers and over painters and the production staff for the glass and tiles (tesserae). After John Pitcairn's failed early attempts to find artists interested in his Cathedral plan through craftsmen of the medieval stained glass movement, he decided to send Winfred S. Hyatt (1891-1959), a Canadian student studying at the Bryn Athyn Academy, to the Pennsylvania Academy of Fine Arts for training. A scholarship in 1913 allowed Hyatt to study art in Europe where he carefully analyzed the Cathedral windows of northern France and England. In 1916, the Pitcairns placed Hyatt in charge of the window studio. He remained a resident artist in many media at Bryn Athyn the rest of his life. He was joined for a short period by Lawrence Saint (1885-1961), who came from Pittsburgh in 1905 with stained glass experience to train at the Pennsylvania Academy of Fine Arts.²⁰ Saint introduced himself to John Pitcairn and was enthusiastically received after showing him colored drawings of windows at Chartres, France, that he had copied between 1910 and 1911.²¹ He worked for the Cathedral project from 1917 to 1928 as both a production man on color formulas and a window designer. He also perfected a glass paint with thirteenth-century qualities. Saint retained his own studio in Huntingdon Valley down the street from the Bryn Athyn (the building remains). There he produced glass for his window designs, devised many different color formulas, and ran his own business.

In April 1917, when Saint joined the studio at Bryn Athyn, Raymond's production team was still stumped by an inability to create the true striated ruby red glass color found in medieval churches. Raymond sought advice from Louis C. Tiffany, visited his studio, and consulted with his artificers in order to retain pure American craftsmanship. All was in vain. Tiffany would only assist if he held a contract for production of the windows. This, indeed, was the commercialism Pitcairn was trying to avoid. To overcome their problem, in 1922 Raymond brought Swedish-born John Larson, son of a glass blower who had worked in New York and Pennsylvania to Bryn Athyn. He had already been supplying glass for the project. He was charged to build a factory for glass production and train a high school student at the Academy, Ariel Gunther (1903-1993) to learn the secrets of the trade. David Smith, another Swedish glass blower from Brooklyn, New York, was hired to assist. Through trial and error (and eventually without Larson), Gunther, Smith, and Saint perfected the manufacture of striated ruby red glass. After 1928, Gunther and Smith resolved production techniques for the thousands of different colored mosaic tessera as well as gold leaf tile used at Glencairn. Assisting in the latter process was

¹⁹ The collection of Henry Lawrence in New York was one Raymond Pitcairn studied. He eventually bought one of the panels at an auction after Lawrence's death. Press reports on the auction mention Pitcairn's purchase. *Philadelphia Public Ledger*, January 30, 1921 (reprinted in *The Bulletin* 9 [March 1921]: 126) and the *New York Tribune*, Jan. 31, 1921. See also: Bryn Athyn, Glencairn Archives, Cathedral, Box Construction, articles, newspaper . . . See also Bryn Athyn Cathedral, Box Construction, articles, newspaper.

²⁰ For further information on Saint see Sylvia Fesmire, "Stained Glass in the Pennypack Valley, Lawrence B. Saint, 1886-1961," *Bulletin of the Historical Society of Montgomery County, Pennsylvania* 25 (1987): 243-251; Lawrence Saint, "The Romance of Stained Glass: A Story of his Experiences and Experiments," Huntingdon Valley, PA, 1959 (Bryn Athyn Cathedral, Box 2, Stained Glass, Saint, Lawrence, File: General by Saint, 1b).

²¹ These paintings became important in their own right and are described by John O'Connor, Jr. in "The Lawrence Saint Drawings of Stained Glass Windows," *Carnegie Magazine* 21 (1947): 3-6.

BRYN ATHYN HISTORIC DISTRICT**Page 53**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

British artist Albert E. Cullen, who joined the team in 1928 after artist Lawrence Saint resigned to become Director of the Department of Stained Glass at the Washington National Cathedral. Smith blew his last glass in Bryn Athyn in 1942 at the age of 78. Gunther lived out his life there producing and repairing the glass windows and mosaic.²² The full production of this team, and many ancillary workers over the years, achieved one of the most important group of American stained glass windows ever to have been made by reproducing medieval colors, standards, and designs. The imagery represents symbolism and biblical events from the Old and New Testaments associated with the beliefs and doctrines of the Swedenborgian religion.

Stone Cutting and Carving

The stone cutting shop was clearly the most critical to both the Cathedral and Glencairn based on the volume of units cut, tooled, and carved. At the Cathedral, two masonry contractors were involved: Pringle Borthwick until 1917 for quarrying and delivery and William Ridgeway through 1919 for the cut work. Many Italian masons arrived by train from South Philadelphia on a daily basis. Most decorative carving was completed in situ after oversized stones were aligned and mortared into position (some still remain uncarved). Models were regularly prepared ahead of time, but most of the output was derived from the carver's personal design. Raymond felt that in order for a worker to have the artistic life and spirit of early Gothic sculpture, it should be executed in stone by the artist who made the model or study. He frequently offered his craftsmen opportunities to study medieval originals in regional museums. Just as different carvers could pick their pattern, the varieties of stone from different states as well as Bryn Athyn provided colors and striations in the walls. Dedicated carvers who began with the Cathedral stayed on and worked at Glencairn. They represented many different nationalities, including Italian, German, and Great Britain. Census records show that many artisans were residents of Bryn Athyn.

Metalwork

Unique to these buildings is the use of Monel metal for roofing, hardware, screens, and handrails, or wherever metal might be employed. The decision to pick a corrosion-resistant metal that had strength and was a natural alloy was Raymond's goal. He achieved it through establishing a studio and forge in 1915 and by bringing young designer and craftsman Parke E. Edwards (1892-1975) to the project to work with Monel and base his designs on studies of medieval hardware. Edwards had traveled and studied in Europe and under blacksmith Samuel Yellin. Monel metal is harder to work than iron and is responsive only to acetylene and oxygen. It has interesting characteristics: handled frequently, it takes on a shine, exposed to the elements it develops a gray-green patina; untreated, it has a dull, gray mat finish. The delicateness of many of the designs, screens, gates, hinge and handle hardware, stair rails and banisters and ornamental work is remarkable in its scrolls, plant and flower-like shapes and figures. The Cathedral, Cairncrest, and Glencairn are distinctive in their use of Monel for infrastructure work, common hardware, and functional, yet decorative gates and screens. Other metals were often combined with Monel to achieve contrast and design. At Glencairn, Edwards additionally created enormous double-leaf bronze doors for the Great Hall that stand alone as masterful achievements, each hammer mark sparkling in the light.

Carpentry and Wood Carving

The large carpentry shop was built to handle ideals that both Raymond and Cram felt were achievable for the nave and chancel of the church: a solid timber roof of oak from trees chosen to fit the

²² For a full story of this experience see Ariel C. Gunther, *Opportunity, Challenge and Privilege* (New York: Vantage Press, 1973).

BRYN ATHYN HISTORIC DISTRICT**Page 54**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

architectural needs and felled locally. To accomplish this, a lumber dealer was enlisted to find the trees, cut them down, and trim them in his nearby mill. The task began in 1913 and trees of up to six feet in diameter and one older than 367 years (in 1916) were brought in their squared form to the site for seasoning. Harry Bowman, of Swiss descent, became head of the woodworking shop, and with architects Donald Robb and Robert Tappan worked out truss construction and mortise and tenon joinery. Because the Cathedral walls were laid to have a slight curve or "refinement," each truss had different dimensions and was individualized in the shop, where decorative carving might be added. The roofing system was essentially assembled here initially, and then dismantled for placement on the walls.

Besides oak, the other wood chosen to embellish these buildings was frequently teak. The warmth and reddish color of teakwood provides color from nature rather than a need for paint. The carving, planing and cutting of paneling, doors, partitions, and other elements took place here. Furniture for the Cathedral and for Glencairn was designed and carved by a number of artists, one of the most prolific was Frank Jeck from Hungary. His work is covered with symbolic figures and decorative artistic features that repeat motifs used in the church or Glencairn. Jeck's unique work ranged from oak chairs for the Cathedral vestry to a cherrywood crib for Lachlan Pitcairn's birth in 1922.

Historic Contexts

The craftsmanship carried out in the Bryn Athyn Studios for the Cathedral and later for Cairncrest and Glencairn caused a commitment to and appreciation of the arts, design, craft, the creative spirit of man, and the accomplishments achievable from working with products of nature. Symbolism of the Swedenborgian faith was the leading design motif. Within the Borough of Bryn Athyn this craft spirit was carried forward to the residents of the community and realized in their own homes and often in studios of artists who both lived and worked independently in the village. In few other communities has the Arts and Crafts Movement of the twentieth-century America had such a strong impact on the creation of a Cathedral and two substantial residential buildings, which feature furniture and decorative arts in the same mode. Cairnwood, though a product of Beaux-Arts planning and design, represents an important initial stage in the development of Bryn Athyn. Constructed in an architecturally defined mode of the time, Pitcairn nevertheless insisted that high-quality American materials be incorporated in the building. All contract work was crafted masterfully by a Philadelphia firm. As a faith-based suburban borough, the Bryn Athyn Historic District presents highly significant residential and ecclesiastical architecture for the period from 1892 to 1938, which clearly demonstrate Beaux-Arts planning methods and Arts and Crafts attention to materials, workmanship, and craft, as represented through such medieval stylistic revivals as Gothic and Romanesque. The physical integrity of the complex is uncommonly high including its landscape setting, materials and workmanship of construction, the aesthetic feeling imparted by design and style, and association with the Pitcairn family.

As an architectural complex predominantly influenced by the Arts and Crafts Movement and supported by the finances of a single family, the community of Bryn Athyn can be readily compared with the Cranbrook Academy, the arts school that developed under George G. Booth in Bloomfield Hills, Michigan. Like Pitcairn, Booth was born outside the United States and left school at fourteen to apprentice as a metalworker. He immigrated to Detroit with his family from Toronto, Ontario, in 1881. After setting up and later selling an ironwork business, Booth took on the position of business manager with the *Detroit Evening News*, an opportunity made available through his father-in-law, James Scripps. Booth rapidly rose to the head of the parent firm and by 1914 had purchased enough of the small Michigan newspapers to form Booth Newspapers, a giant in the industry. His strong interest in the Arts and Crafts Movement led to his eventually being named president of the local Detroit society. In 1904, he and his wife moved from Detroit to a run-down farm in an agricultural suburb called Bloomfield Hills. They named their farm Cranbrook after his father's English

BRYN ATHYN HISTORIC DISTRICT**Page 55**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

birthplace. There they rehabilitated the landscape into a large country estate and in 1907 engaged well-known Detroit architect Albert Kahn to build a mansion for themselves and their five children. Kahn infused the Tudoresque “cottage” with finely crafted wood paneling and other features. The Booth’s financial resources allowed them to consider adding public buildings to their growing suburban community. In 1915, they built a Greek Theater, followed by a Meeting House for community gatherings, social, political, and religious. Bloomfield Hills School was the first educational institution built, completed by 1922. They engaged Goodhue Associates (the principal of which was a former partner of Ralph Adams Cram) to erect Christ Church Cranbrook (Episcopal). The Booths considered a religious edifice necessary to shape character through beauty, intellect, and spirituality. As part of the Arts and Crafts Movement of the day, the interior was decorated by leading firms. The next building desired by the Booths was the Cranbrook Academy of Art, inspired by their visit to the American Academy in Rome in 1922. Contact with Eliel Saarinen, a Finish architect teaching at the University of Michigan, supported creation of the Cranbrook Foundation with Saarinen leading the architectural direction.

In 1928, the Cranbrook School was completed, to be quickly expanded with crafts studios, residences, and the Kingswood School for Girls. Just as at Bryn Athyn, where the artisans on site were tapped to build Glencairn, at Cranbrook those decorating the church became involved in fabric, furniture, and designs for use in the new school. After a slowdown in development as a consequence of the Great Depression, Saarinen’s last contribution to the complex was the Museum and Library of 1942. George Booth, trained as a metalworker, had become wealthy through the newspaper business. John Pitcairn, a railroad clerk, gained his wealth through his plate glass industry. Both moved from urban environments to suburban communities where they established noble estates. Educational and spiritual facilities to carry out Swedenborgian teachings and doctrines were Pitcairn’s goal; Booth realized the need for youth education and focused on art education but not without a church as well. In the hills of Michigan and the hills of Pennsylvania architecture and the Arts and Crafts Movements blossomed and flourished nearly simultaneously from the end of the nineteenth century to nearly 1940 through the philanthropic efforts of two nineteenth-century immigrant industrialists. Both retain national significance for their architectural and artistic achievements.

Closer to home, Henry Chapman Mercer’s (1856-1930) Fonthill, the Mercer Museum, and his Moravian Pottery and Tile Works in Doylestown, Pennsylvania, stand as other remarkable benchmarks of the American Arts and Crafts. A parallel between Mercer and the Pitcairn family, as well as George Booth, is the fact that he was independently wealthy, enabling him to carry out experimental and inspirational artistic and architectural efforts of his own conception, independent of time constraints or concerns about financing. He was also driven by the philosophies and concepts of the Arts and Crafts Movement that focused on producing artistic works by hand and through their historic, traditional processes. Mercer, an historian and a well-traveled archaeologist who founded the Museum of Archaeology and Anthropology at the University of Pennsylvania, became fascinated with emerging concrete construction processes, early American tools, and recreating the production of Pennsylvania “Bucks County” pottery.

Fonthill, Mercer’s own forty-four room house built between 1908 and 1910, was constructed with an entirely unique construction method—hand-mixed concrete poured over reinforced frames of earth and wood that had decorative tiles, ornamental décor, or furniture already built into the substrate. Once the concrete hardened, workers removed the earth to reveal a finished room. Fonthill stands as an iconoclastic mélange of all ideals of the Arts and Crafts era. Developed nearly simultaneously and completed by 1912 was the Moravian Pottery and Tile Works, a plant designed in a Spanish Revival style for hand producing clayware. Although interest in pottery production proved minimal, the tile production became so successful that numerous contemporary buildings built throughout the state and beyond incorporated his Mercer tile. The floors of the Pennsylvania State Capitol in Harrisburg (NHL, 2006) and various uses of the tile in the Pitcairn’s buildings at Bryn Athyn

BRYN ATHYN HISTORIC DISTRICT**Page 56**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

are significant examples. Mercer's final contribution of a building constructed of hand-mixed reinforced concrete is the Mercer Museum. Built between 1913 and 1916 to house his enormous collection of American tools, the seven-story, multi-winged building with large varied windows and balustrades and turrets at roof level appears like a storybook castle. Indeed, Mercer's two poured concrete buildings and his tile works represents the vision, drive, and experimental genius of a self-sufficient Renaissance man of the Arts and Crafts period. The creation of Glencairn, by Raymond Pitcairn to embody his own collection of medieval art work and sculpture, followed indeed a pattern set by Henry Mercer, even incorporating poured concrete technology. Both men, for different reasons and with their own financing, produced architecture and art unique to the time and influenced by philosophies, traditions, and trends of the Arts and Crafts Movement.

Conclusions

The architecture of the Bryn Athyn Historic District, created between 1892 and 1938, was founded in the Beaux-Arts tradition with industrialist John Pitcairn's home Cairnwood, which laid the groundwork for the development of one of the greatest complex of buildings in the Arts and Crafts tradition as seen in the Bryn Athyn Cathedral, Cairncrest, and Glencairn. Craft shops and artists studios established for building construction inspired independent artistic expression, scientific invention, and promotion of the virtues of nature and natural materials through hand processes. The resulting architecture in the district exhibits unique designs and building materials, sculpture, glass, metal, craftsmanship, and symbolism of the highest national achievement representing the aesthetics, values, and ideals of the Arts and Crafts Movement.

BRYN ATHYN HISTORIC DISTRICT**Page 57**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

9. MAJOR BIBLIOGRAPHICAL REFERENCES**Books & Articles**

- Artistic Country-seats*. Reprint of 1886 edition. Ed. George W. Sheldon. New York: Da Capo Press, 1979.
- Ashbee, C. R. *Craftsmanship in Competitive Industry: Being a Record of the Workshops of the Guild of Handicraft, and Some Deductions from their Twenty-one Years' Experience*. London: Essex House Press, 1908.
- Beaver, Carol. "Bryn Athyn Cathedral, Where Man May Forget the World." *Pennsylvania Heritage* 12 (Fall 1986): 16-25.
- Blake, Curtis Channing. "The Architecture of Carrère & Hastings." Ph.D. dissertation, Columbia University, 1976. University Microfilms.
- Brisac, Catherine and Marie-Agnès Féault. "La verrière gothique de Santeny (Val-de-Marne) et son panneau du Glencairn Museum (Pens.)." *Revue de l'art* 79 (1988): 42-46.
- The Bryn Athyn Church. Souvenir*. Bryn Athyn: Tenth General Assembly, 1919.
- "Restoration of the Bryn Athyn Cathedral, Restoration Architect, John Milner Associates." *Building Stone Magazine* (April-June 1994): 34-36.
- Childs, Walter C., compiler. *The Life and Times of John Pitcairn*. Bryn Athyn: The Academy of the New Church, The John Pitcairn Archives, 1999.
- Cram, Ralph Adams. "A Note on Bryn Athyn Church." *The American Architect* 113 (May 29, 1918): 709-12.
- De Beaumont, L. B. "Swedenborg." *The Encyclopedia of Religion and Ethics*. James Hastings, ed. New York: Charles Scribner's Sons, 1908. Volume 12, pp. 129-131.
- Design in America. The Cranbrook Vision 1925-1950*. Various authors and articles. Of note: "The History of the Cranbrook Community" by Davira S. Taragin. New York: Detroit Institute of Arts and Metropolitan Museum of Art, 1983.
- Ferree, Barr. *American Estates and Gardens*. New York, 1906.
- Ferree, Barr. "Notable American Homes." *American Homes and Gardens* (November 1905): 295-303.
- Fesmire, Sylvia. "Stained Glass in the Pennypack Valley. Lawrence B. Saint 1885-1961." *Bulletin of the Historical Society of Montgomery County, Pennsylvania* 25 (Spring 1987): 243-251.
- Gaskill, Jennie. *Biography of Raymond Pitcairn*. [n.p.] [n.d.] Glencairn Archives.
- Gladish, Richard R. *John Pitcairn: Uncommon Entrepreneur*. Bryn Athyn: The Academy of the New Church, 1989.

BRYN ATHYN HISTORIC DISTRICT**Page 58**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

- Glenn, E. Bruce. *Bryn Athyn Cathedral: the Building of a Church*. Bryn Athyn: The Academy of the New Church, 1971.
- Glenn, E. Bruce. *Glencairn: the Story of a Home*. Bryn Athyn: The Academy of the New Church, 1990.
- Gunther, Ariel C. *Opportunity, Challenge and Privilege*. New York: Vantage Press, 1973.
- Hayward, Jane and Walter Cahn, et. al. *Radiance and Reflection: Medieval Art from the Raymond Pitcairn Collection*. New York: Metropolitan Museum of Art, 1982.
- Hewitt, Mark A. *Gustav Stickley's Craftsman Farms: The Quest for an Arts and Crafts Utopia*. Syracuse, NY: Syracuse University Press, 2001.
- Hitchmough, Wendy. *The Arts & Crafts Lifestyle and Design*. New York: Watson-Guptill, 2000.
- "House for John Pitcairn." *American Architect and Building News* 40 (22 April 1893): Plate 904.
- Jeffery, Michael. *Christie's Arts and Crafts Style*. New York: Watson-Guptill, 2001.
- Jonsson, Inge. "Swedenborg, Emanuel." *The Encyclopedia of Religion*. Mircea Eliade, ed. New York: MacMillan, 1987. Vol. 14, pp. 192-193.
- Kahn, Albert. *The Legacy of Albert Kahn*. Detroit: Detroit Institute of Arts, 1970.
- Linguist, Richard. "My Story of the Bryn Athyn Cathedral." Typescript. Rev. 2004, Huntingdon Valley, PA.
- Malone, Dumas, ed. *Dictionary of American Biography*. New York: Charles Scribner's Sons, 1936.
- Matuz, Roger. *Albert Kahn: Builder of Detroit*. Detroit: Wayne State University Press, 2002.
- Matthews, Robert. "Tribute to Yesterday: A Description of Raymond Pitcairn's Greatest Achievement, the Bryn Athyn Cathedral." *Arts Philadelphia* (November 1938): 8-9.
- Moss, Roger. *Historic Sacred Places of Philadelphia*. Philadelphia: University of Pennsylvania Press, 2005.
- Naylor, Gillian. *The Arts and Crafts Movement, A Study of Its Sources, Ideals and Influence on Design Theory*. Cambridge, MA: MIT Press, 1971.
- O'Connor, Jr., John. "The Lawrence Saint Drawings of Stained Glass Windows." *Carnegie Magazine* 21 (June 1947): 3-6.
- Old York Road Historical Society. *The Morelands and Bryn Athyn*. Images of America Series. Charleston, S.C.: Arcadia, 2002.
- Pittsburgh Plate Glass Company. *Glass, History, Manufacture and its Universal Application*. Pittsburgh: Pittsburgh Plate Glass Company, 1923.
- Platt, Frederick. "Horace Trumbauer's Mansions in Elkins Park." *The Bulletin of the Historical Society of*

BRYN ATHYN HISTORIC DISTRICT**Page 59**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Montgomery County 30 (Spring 1997): 252-299.

- Pryke, Martin. *A Quest for Perfection: The Story of the Making of the Stained-glass Windows in the Bryn Athyn Cathedral and Glencairn*. Bryn Athyn: Glencairn Museum, 1990.
- Raguin, Virginia Chieffo. *Stained Glass from Its Origins to the Present*. New York: Harry S. Abrams, 2003.
- Reed, Cleota. *Henry Chapman Mercer and the Moravian Pottery and Tile Works*. Philadelphia: University of Pennsylvania Press, 1996.
- Rhodes, Leon. *From this Past What Future? Bryn Athyn Centennial 1998*. Prepared for the Pennickpacka Historical Society. [n.p.], 1998.
- Robb, E. Donald. "The Bryn Athyn Church." *The New-Church League Journal* 18 (February 1918): 78-83.
- Romano, David and Irene Bald Romano. *Catalogue of the Classical Collections of the Glencairn Museum, Academy of the New Church, Bryn Athyn, Pennsylvania*. Bryn Athyn, PA: Glencairn Museum, 1999.
- Russell, James S. "Stewardship: The Cathedral and Academy of the New Church, Bryn Athyn, Pennsylvania." John Milner Associates, restoration consultants. *Architectural Record* 181 (January 1993): 124-125.
- Saint, Lawrence. "The Romance of Stained Glass: A Story of his Experiences and Experiments." Huntingdon Valley, PA: Mimeograph by L. Saint, 1959.
- Sandström, Liane, compiler. *The Bryn Athyn Craft Movement*. Edited by Joyce Bellinger and Stephen Morely. Bryn Athyn: Glencairn, 1996.
- Smith, Frank Kingston. *Legacy of Wings: The Harold F. Pitcairn Story*. Lafayette Hill, PA: T-D Associates, 1981.
- "Swedenborgian Groups." *Encyclopedia or American Religions*. J. Gordon Melton, ed. 6th ed. Farmington Hills, MI: Gale, 1999. See pp. 669-70 and references throughout.
- Taylor, Deborah Howard. "Hidden Treasure: Along with the Better Known Cathedral, the Borough of Bryn Athyn Boasts Glencairn, a Jewel of the Arts and Crafts Style." *Montgomery Lifestyles* (Summer 1999): 21-27.
- Thomas, George E. *William L. Price: Arts and Crafts to Modern Design*. New York: Princeton Architectural Press, 2000.
- Vagnone, Frank D. "The Cathedral at Bryn Athyn." *Style 1900, the Quarterly Journal of the Arts & Crafts Movement* 14 (February 2001): 40-46.
- Walker, Cynthia H. *The Work of Winfred S. Hyatt*. August 1978. Printed pamphlet. Glencairn Archives.
- "The Work of Messrs. Carrère & Hastings." *The Architectural Record* 26 (January, 1910): 1-120.

BRYN ATHYN HISTORIC DISTRICT**Page 60**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Archival Resources

Academy Archives, Bryn Athyn
Correspondence

Bryn Athyn Church, Bryn Athyn
Plans, photographs

Glencairn Archives, Bryn Athyn
Bryn Athyn Cathedral articles, correspondence, accounts, plans, photographs
Cairnwood photographs
Cairncrest plans
Glencairn correspondence, accounts, photographs, models

John C. Pitcairn Archives, Bryn Athyn
Cairnwood accounts, correspondence, maps, plans, specifications

Online Resources

www.brynathynCathedral.org
www.cairnwood.org
[www.cranbrook.edu/community/brief history.html](http://www.cranbrook.edu/community/brief%20history.html)
www.glencairnmuseum.org

Previous documentation on file (NPS):

- Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
 Previously Listed in the National Register. Glencairn and Cairnwood, only.
 Previously Determined Eligible by the National Register.
 Designated a National Historic Landmark.
 Recorded by Historic American Buildings Survey:
 Glencairn, HABS No. PA-6036
 Bryn Athyn Cathedral, HABS No. PA-6042
 Recorded by Historic American Engineering Record:

Primary Location of Additional Data:

- State Historic Preservation Office
 Other State Agency
 Federal Agency
 Local Government
 University
 Other (Specify Repository):

BRYN ATHYN HISTORIC DISTRICT**Page 61**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

10. GEOGRAPHICAL DATA**Acreeage of Property:** 37.7 acres

UTM References:	Zone	Easting	Northing
A	18	494220	4443040
B		494380	4442940
C		494750	4443150
D		494720	4442940
E		494600	4442940
F		494560	4442720
G		494640	4442720
H		494620	4442540
I		494210	4442800
J		494000	4442660
K		494070	4442820
L		494000	4442850

Verbal Boundary Description:

The boundary of the Bryn Athyn Historic District follows the exterior property lines of six parcels of land owned by various entities in Bryn Athyn as shown below. The exterior line of these parcels as shown on the *Site Map and Boundary of the Bryn Athyn Historic District* begins at a point on the north side of Quarry Road at the west corner of a residential property west of Huntingdon Pike and extends northward to a point in the field south of Cathedral Road. There it goes northwest and follows the south side of the road, crossing the road at the east edge of a driveway that enters the Cathedral parking lot. The line crosses north through the parking lot and bends eastward in front of Glencairn to a point equidistant between the east end of Glencairn and the west end of Cairnwood south of both buildings. From there it goes directly east in front of Cairnwood to the west side of Huntingdon Pike. At this point it goes north on the west side of the Pike to a point directly across from the south end of the Cairnwood Garage and Chauffeur's Quarters that lies on the east side of the Pike. The line crosses the Pike and continues along the south end of the building eastward to a point that aligns with the most eastern portion of the building. The line travels north to a point at the edge of a driveway. There the line goes westward along the driveway across Huntingdon Pike to a point on the west side. The line turns north and travels along the Pike past the Stable to a point in the landscape that aligns with the north edge of a parking area west of the Stable. The line travels in a large arc to the southwest with open fields to the north and northwest and the Cairnwood and Glencairn parcels to the southeast. The line crosses Cathedral Road and stops at a point on the south side of the road where it turns westward and follows the edge of the road to a point past a small driveway into Cairncrest. At this point the line goes southwest in a straight line to a point in the landscape that aligns with the north end of Cairncrest. From this point it runs south to a point that aligns with the southern most wing of Cairncrest. The line then goes southeast for a brief run and turns directly east to stop at a point that aligns with the west corner of Cairncrest. The line then goes directly north to Quarry Road, where it turns and runs briefly along the west side of the road before it arcs northeast following the bend in the road. It continues to a point where the line turns and runs straight northeast to the southwest side of a driveway to Cairncrest from Quarry Road. From this point the line follows the driveway southeast to the north side of Quarry Road and runs along the north side of this road to the point of beginning.

BRYN ATHYN HISTORIC DISTRICT**Page 62**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

The parcels that this district embody as described in the order above are the following:

No. 2 Bryn Athyn Cathedral

Bryn Athyn Church, owner, Block 3, Unit 1, Deed Book 0828, page 264

No. 3 Glencairn Museum

Academy of the New Church, owner, Block 2, Unit 3, Deed Book 4565, p. 579

No. 4A Cairnwood

Academy of the New Church, owner, Block 2, Unit 1, Deed Book 4565, p. 579

No. 4B Cairnwood

Academy of the New Church, owner, Block 2, Unit 4, Deed Book 4565, p. 584

(Continuation of the property line to include the Garage and Chauffeurs Quarters across Huntingdon Pike is per the original "Subdivision Plan made for the Estate of Raymond Pitcairn," 1980 by George Mebus, Inc., Engineers, Abington, PA, retained by the Academy of the New Church, Bryn Athyn.)

No. 1B Cairncrest

General Church of the New Jerusalem, owner, Block 3, Unit 11, (no deed citation)

No. 1A Cairncrest

General Church of the New Jerusalem, owner, Block 3, Unit 10, (no deed citation)

Boundary Justification:

The boundary for the district is derived from the exterior property lines of the five parcels of land upon which the contributing buildings sit. These parcels are all contiguous and recreate a portion of the original land parcel purchased by John Pitcairn for construction of his house Cairnwood and eventually then passed on to his children, Harold and Raymond, or to the General Church of the New Jerusalem for the Cathedral. The properties are all now institutionally owned.

BRYN ATHYN HISTORIC DISTRICT

United States Department of the Interior, National Park Service

Page 63

National Register of Historic Places Registration Form

11. FORM PREPARED BY

Name/Title: Jean K. Wolf

Address: Wolf Historic Preservation
114 St. Paul's Rd.
Ardmore, PA 19003-2811

Telephone: 610-896-3629

Date: November 8, 2006

Edited by: James A. Jacobs, Historian
National Park Service
National Historic Landmarks Survey
Historic American Buildings Survey
1849 C Street, NW (2270)
Washington, DC 20240

Telephone: (202) 354-2184

NATIONAL HISTORIC LANDMARKS SURVEY
May 1, 2008