The Shaker City Dance Hall

by

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# CONTENTS

Abstract ........................................................................................................................................ iii
Acknowledgements ................................................................................................................ iv

Chapter 1: Introduction ........................................................................................................ 1
  The Shakers .................................................................................................................. 3
  Worship ................................................................................................................... 4
  Settlement .............................................................................................................. 6

Site, The Holy City ........................................................................................................ 7
  Origin / History ...................................................................................................... 7
  Intrinsic Elements .............................................................................................. 12

Precedent Study ............................................................................................................ 17
  Shaker Architecture ........................................................................................... 17
  The Meeting House ........................................................................................... 19
  Intrinsic Elements .............................................................................................. 24

Program ....................................................................................................................... 29

Chapter 2: Design ........................................................................................................... 30
  Site ....................................................................................................................... 30
  Design ................................................................................................................... 32

Chapter 3: Conclusion ...................................................................................................... 49

References ................................................................................................................... 50
ABSTRACT

This thesis explores Shaker (architectural) intentionality through an examination of and proposed addition to the Shaker’s Holy City design template. The Holy City drawing and its accompanying text, ‘Explanations of the Holy City with its various parts and appendices pointed out’, depict a master plan of Shaker ‘Heaven’ and template from which Shaker settlements were to be constructed. This thesis proposes the addition of a meeting house design to the Holy City master plan, an addition through which intrinsic elements of Shaker architecture may be readily understood.

The project encompasses two stages. The first involves an overall analysis of the Holy City, Shaker meeting house and village typologies. Secondly, ‘drawing’ upon the lessons arising from the analysis, the project proposes the addition of a meeting house to the Holy City documents. The proposed design is sited within the Holy City map and retrospectively mediates the Shakers idealized and constructed works.
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CHAPTER 1: INTRODUCTION

This thesis began with an interest in the Shakers, their story and the intentionality with which they crafted their built environment. The Shakers were perhaps one of America’s most successful utopian societies, a group whose membership, design and architecture span over two hundred years. Following the steady decline of the Shaker population throughout the 20th century, the sect is all but extinct at the time of writing, three members remain at Sabbathday Lake Shaker Village in Maine (Sabbathday Lake 2013). As a utopian society, the Shakers sought to construct heaven on earth, imbuing their works with an extraordinary level of attention to detail, craft and care. Shaker settlements, dances and even furniture were constructed and understood as earthly ‘reflections’ of heavenly counterparts above, thereby allowing Shakers to dwell simultaneously in both spiritual and earthly realms.

A visual representation and description of the celestial geometry from which the Shakers drew inspiration is captured in their master plan for the Holy City. The master plan purportedly embodies a template for a heavenly city from which all Shaker settlements were to be constructed. The Holy City documents may or may not ever have been intended for actual construction – there is no evidence the master plan was ever actually implemented. However, the documents were employed as instructive tools, like many other Shaker art works, as a means of communicating knowledge from one generation of Shakers to another. The Holy City presents a deliberately ‘distilled’ and unified narrative through which prospective Shakers (or contemporary scholars) might quickly gain insight into the
methodology and intent of Shaker planning. Though the master plan details the program, locations and, in some instances, dimensions of selected structures, the document provides little insight into the actual principles governing Shaker architecture. Among the few structures described in the Holy City is a central meeting house. The meeting house was not only the first architectural project undertaken by the Shakers; it was also the first building raised in the establishment of any new settlement. Using both the meeting house and Holy City typologies, this thesis will investigate an architectural proposition through which intrinsic elements of Shaker architecture may readily be understood.
The Shakers

The Shakers emerged in 1774 as an offshoot of an enthusiastic British religious sect, the Wardley Society. Like many religious offshoots, the Shakers established themselves around the vision of a charismatic leader, Mother Ann Lee, 1736–1784 (Swank 1999, 11). The first eight Shakers left England and travelled to the United States to found the ‘United Society of Believers in Christ’s Second Appearing’. The group quickly earned the name ‘Shakers’ for their ecstatic dancing services. Early Shakers visibly distinguished themselves from the general population by shearing their hair and modifying their dress. Men cut their hair close along the front of their heads and long in the back, while women simply gathered their hair in a bonnet and wore a handkerchief across their breast (Kirk 1997, 16). From the very beginnings of the Shaker faith, strict vows of celibacy and gender segregation were enforced. Almost all Shaker buildings were constructed with individual entrances for men (brothers) and women (sisters). Publicly, the genders were considered equal but separate in all aspects of the Shaker faith. Each sex held different responsibilities within the community and maintained minimal contact with one another.

Though the early Shakers and their converts were initially persecuted, they gained respect for their cleanliness, perceived honesty and craftsmanship. The Shaker settlement and Central Ministry (Shaker religious leadership) of New Lebanon (Mount Lebanon) was founded in 1787 and established itself as the centre from which architectural, theological and templates – including the first meeting house – were ‘released’ to the larger Shaker population.
Worship

The earliest Shakers distinguished themselves from other Christian religious sects through their ecstatic worship. Religious dance – also called exercises or labours – was the primary conduit through which the Shaker community experienced the Divine. Ecstatic worship allowed members to commune with otherwise invisible spirits and receive revelations into the nature of the universe. Additionally, the practice of improvised dance provided an apt physical medium (and metaphor) for the seemingly radical religious departure of the Shakers from mainstream Christianity. The early Shakers may also have experimented with the use of alcohol and nudity in their quest for religious expression. The first ceremonies were plagued with rumours of alcohol use by the religious leaders, including Mother Ann Lee and her brother William Lee, as a means of eliciting visions and communications with the heavens. However, these practices
were quickly abolished and replaced with a more puritan doctrine in which alcohol and mind-altering substances were strictly banned throughout Shaker communities (Ibid., 20). Though perhaps an initial catalyst, external stimulants were not necessary for the Shakers to practice their energetic and ecstatic worship services. At the numerical peak of the Shaker faith (mid-19th century), and over half a century after the first Shaker services, groaning, sighing and, at times, violent shaking were still regular occurrences at worship (Ibid., 21). The early spontaneous energetic dancing slowly gave way in the later part of the 19th to rigid and scripted patterns of movement.

The need for communal, secure and regular worship spaces necessitated the formation of the first Shaker settlements and architectural project – the meeting house.
 Settlement

The Shakers landed along the North Eastern seaboard and quickly migrated Southward. Of particular importance to this thesis is the geographic location of the Holy City gift drawing situated directly above the Mount Lebanon settlement.

Map of Shaker settlement, (data from Kirk 1997, 25)

* Location of the Holy City above the Mount Lebanon settlement
Site, The Holy City

The Holy City represents a deliberately ‘distilled’ and unified visual narrative through which prospective Shakers (or contemporary scholars) might quickly gain insight into the methodology and intent of Shaker planning. The city plan simultaneously expressed the form of heaven, and common pattern from which all Shaker settlements and design decisions might be modelled (Promey 1993[b], 78).

Origin / History

Contemporary scholars (and architecture students) are not alone in trying to understand and encapsulate the elements of intentionality and inspiration from which the Shakers drew. The Shakers themselves were faced with the challenge of communicating formal and spiritual unity between successive generations. One method the Shakers developed to achieve this was the ‘gift drawing’.

Shaker gift drawings first emerged around 1837 in a period of transition following the death or departure of many of the first and second ‘generation’ (first born) Shakers – those who had been converted and mentored by Mother Ann Lee herself (Promey 1993[a], 87). Fearful of losing a common connection or vision through which the community might maintain unity, the Shakers solicited the heavens for direction. They were apparently answered. A new era of spiritual communication between ‘gifted’ Shakers and the holy spirits (including the late Mother Ann Lee) was quickly established (Ibid., 92). Through the hands and mouths of gifted interpreters, an outburst of revelations, dances and images were recorded and disseminated among the Shaker communities. These new mediums served to replace or substitute for the
disappearing presences (and cohesive force) of the older Shaker generations. Visual mediums, in particular, provided members with clear representations of the foundational faith and design intentionality. Colour, geometry and illustrated metaphor placed what had previously been only visible to the eye of the spiritually initiated, on display for the novice Shaker – and non-believer alike (Promey 1993[b], 92). As Swank notes (Swank 1999, 26),

Most world religions share the concept of a spiritual journey or pilgrimage with the goal of arriving at a sacred place in order to achieve forgiveness, healing, and growth. The physical path has a distinct identity, with zones, boundaries, landmarks, and focal points, all of which provide a clear sense of direction toward a sacred center. The more clearly a religious community expresses belief systems through architectural and spatial patterns, the more successfully the community’s members will be able to follow the intended spiritual path.
Gift drawings were not considered to be the works of individuals; rather, they were perceived as messages from the heavens that passed through chosen mediums and ‘out’ into the Shaker community. At first glance, many gift drawings may appear uncharacteristically eccentric and far removed from the minimal (almost ‘modern’) aesthetic associated with Shaker design. However the geometries, hearts, branches, text and numbers that frequent the gift drawings reveal a ‘highly sophisticated’ understanding of order, symbolism and intention (Prome 1993[b], 83).
Holy City key districts

a. Central Ministry
b. East district
c. West district
d. West suburb
e. South suburb
f. North suburb

The Holy city map (data from Philadelphia Art Museum Collection 1843[b])

The map is oriented along an East / West vertical axis (East at the top) and North / South horizontal axis
The Holy city map residential, worship and garden spaces (data from Philadelphia Art Museum Collection 1843[b])
Intrinsic Elements

Legend

The companion text, ‘Explanations of the Holy City with its various parts and appendices pointed out’, details four programmatic activities; dwelling, governing, agriculture and worship. The individual programs are arranged within hierarchical ‘blocks’ and concentric geometries. Though the Holy City appears as a continuous ‘whole’, an examination of the legend reveals that the plan is ‘broken’ up into distinct districts. Each district is determined and named in accordance with its geographic location (i.e., North, South, East, West districts) relative to the map’s center and the meeting house.

(A)symmetry

The Holy City is bisected by two 100’ roadways (East/West & North/South), which act as primary and secondary axes from which bilateral (a)symmetries are visible. The city plan is balanced, not unlike many Shaker furniture designs, where visual equilibrium and interest is fostered through the repetition of not-quite-alike pieces (Kirk 1997, 66). Symmetry may viewed as a natural extension of Shaker practices of separation, celibacy and equality between sexes. Buildings required a minimum of two identical doorways, staircases, and beds, etc (Promey 1993[b], 73). Additionally, the Shaker preference for gendered roles within their communities (men tended to certain tasks and women to others) may perhaps have influenced the play between alike / not-alike parts that comprise a greater whole.
The Holy City site plan depicts celestial geometry as a series of symmetrical and concentric squares, circles and multifaceted polygons. Geometries, particularly the square, ‘straightness’, and circle held great significance to mid-century Shakers. The square (and rectangle) possessed a particular attraction for the Shakers, embodying both a moral imperative and idealized geometry of the ‘earthly’ realm. Straightness is perhaps the most readily visible quality still evidenced in surviving Shaker settlements, architecture and furniture. Shakers were encouraged to foster ‘straightness’ in almost very aspect of their lives, including the activities of sleep, sitting and walking throughout the day. The circle embodies the perfection of heaven and is employed as both a reference to the celestial realms (Ibid., 75).
**Scale of Place**

The Holy City was believed to exist directly above the Shaker ‘capital’ settlement of Mount Lebanon. The Holy City is purportedly one of many such cities that might exist across the heavens, each with a similar celestial geometry. The initial city template was to cover three square miles and one day grow (in tandem with the projected population) to cover 12 square miles. An overlay between a digitally reproduced map of the Holy City and the Mount Lebanon community reveal similarities in scale and massing areas. Additionally, the city map includes selected orchards from the Mount Lebanon settlement, presumably reinforcing the perceived connectivity between earthly and celestial realms.

The Holy city map and Mount Lebanon settlement overlay 1842 (data from Philadelphia Art Museum Collection 1843[b] and Library of Congress 2009)
Topography

Though there is no visual topography present in the Holy City plan, the legend makes references to grade changes between districts consistent with the topography of the Mount Lebanon settlement. As such, this thesis assumes the Mount Lebanon topography offers a base from which to understand the Holy City as a three-dimensional construct.

The overlay of the Holy City and Mount Lebanon topographies reveals that the two circular East and Southern ‘suburbs’ (areas outside the squared city walls) occupy elevated peaks overlooking the settlement. The rectilinear North and West suburbs occupy contrasting low points in the topography. The central East/West axis presents a relatively even decline in elevation, well-suited to the canal running through the city plan.
Colour

The Holy City site plan employs colour primarily for the purposes of religious symbolism. The dark greens, reds and yellows provide an overlay of Biblical references and meaning to the site plan, separate from the purpose of the image as a measured (to scale) design template. Rather, they may be understood as an additional means of emphasis and narrative reinforcement. An excellent example of this may be found in yellow coloured streets occupying a portion of the map. The city legend describes the streets as made entirely of gold – clearly not a practical or economically feasible construction material. However, the reference does highlight the transition from a regular (and unspecified) material to one of high value. We may understand this as a marker of hierarchical change – the spaces within the squared city walls are of greater importance than those outside.

Program

Though a number of building structures are listed in the Holy City documents, the meeting house or sanctuary receives particular emphasis. Not only are the dimensions of the structure, roads bisecting the site, and river provided, but the center of the meeting house is identified as the base point from which the locations of all other structures and boundaries may be determined Philadelphia Art Museum Collection 1843[a], 19.
Precedent Study

Shaker Architecture

The first Shaker architectural project was the construction of a meeting house typology in 1792. Following its completion, the design for the meeting house was replicated almost a dozen times as new Shaker communities were founded (Kirk 1997, 90). The construction of the first meeting house marked a pivotal moment in the development of a Shaker design aesthetic. The meeting house template appears to have emerged (fully formed), exhibiting many of the qualities of order, symmetry and procession broadly associated with the contemporary understanding of Shaker architecture.

The source of this first architectural pattern remains unknown. The Shakers themselves claimed divine inspiration for the meeting house design. Scholars have speculated that the Shakers may, in fact, have drawn from a myriad of historical
precedents. These include Christian monastic traditions, the Moravians (though there is no documented contact between the two societies), American colonial structures, and possible the New England mill or worker structures (Swank 1999, 3).

Regardless of inspiration, the first meeting house appears to have provided both a literal and figurative design template from which the Shakers quickly established a larger ‘Shaker’ typology. This generative process is of particular interest given the Shaker’s later attempts to encapsulate and preserve information within singular documents – such as the Holy City site plan – as a means of further fostering formal and spiritual unity (Promey 1993[a], 78).
The Meeting House

The first generation meeting house presents a unique opportunity from which to study the evolution and consistencies within Shaker architecture. As mentioned previously, not only was the meeting house a seminal source from which other Shaker typologies evolved, but also a unifying element (simultaneously) present in many of the Shaker settlements.

This thesis examines two distinct meeting house typologies, namely, the ‘first’ and ‘second’ generations produced by the Shaker population prior to their numerical decline. Though seemingly quite distinct in scale and massing, the two designs share a number of characteristics – including treatment of program, symmetry, perimeter and material articulation.
First generation Shaker meeting house elevations
(data from Swank 1999, 26)

First generation meeting house interior view, 2009,
photograph by Henry Plummer (Plummer 2009, 37)
First and second generation meeting house comparative scale & program diagram (data from Library of Congress 2000 and Swank 1999, 26)
**Home, Hearth and Hall**

Analysis of the Shaker meeting house typology revealed three intrinsic programmatic elements – home, hearth and hall. In addition to a ritualized dance space, the Shaker meeting house acted as the primary dwelling of the community’s spiritual leaders (a ministry comprised of two elders and two eldresses). The hearth was an important element of both Shaker architecture in general and the meeting house typology. The Shakers used wood as their primary heating source throughout the 18th, 19th and 20th centuries, even as modern alternatives emerged. This fact is particularly significant given the Shaker proclivity for adopting the latest and most up-to-date technologies as they emerged.
Second generation meeting plan & section diagrams
1824 (data from Library of Congress 2000)
Intrinsic Elements

Shaker architecture and interior design are by no means homogeneous across different settlements and historic periods. The first generation meeting house appears to have provided an initial ‘base’; however, continuous shifts in building technologies, cultural practices and geographic location, have greatly impacted the collection of remaining Shaker structures. As such, this thesis considers Shaker architecture primarily through an examination of unifying elements – characteristics present in both the first generation meeting house and subsequent typologies.

Following a broad analysis of relevant literature, remaining Shaker works and the meeting house typology, three elements were selected for study and inclusion within the Holy City documents. These three elements include the Shaker’s approach to symmetry, centre and procession.
Symmetry

Shaker architectural symmetry may be understood as comprising both horizontal and vertical axis. The horizontal axis is generally expressed through bi-lateral symmetry, corresponding perhaps to the gender segregation and perceived equality within the Shaker faith. Buildings, rooms and furniture layouts are often bisected by an invisible center line from which program, furniture and structure offset.
The vertical axis (or *axis mundi*) occurs throughout Shaker architecture as a moment of connection between the heavenly and earthly spheres. The Shakers understood that both heavenly and earthly spheres represented corresponding reflections of one another – as described in the Shaker maxim, “heaven and earth are threads of one loom” (Plummer 2009, 2).

This connection was often expressed in Shaker architecture through the use of light. Strategically placed stairwells, windows and skylights provided periodic connections to the heavenly sphere above.

Shaker spiral staircase and light well, 2009, photograph by Henry Plummer (Plummer 2009, 40)
**Centre**

In discussing the Shaker's approach to centre it is perhaps most useful to begin with a discussion of the 'perimeter'. The earliest Shaker works feature extensive shelving, storage and regular window openings concentrated along perimeter of spaces. Conversely the 'centre' space is left open, a void into which any number of programs and activities might be introduced and then removed.

This pattern and the clear distinction between centre and perimeter spaces are repeated almost universally throughout Shaker structures; they are particularly present, however, in the meeting house, dwelling and workshop typologies. Within these structures it not uncommon for centralized spaces to be entirely surrounded by storage and light apertures – a somewhat poetic relationship in which an occupant is both separated and connected to the outside world through the lens of a modular order.
Procession

The movement through both Shaker structures and settlements has often been compared with the choreography of a ritualized dance (Swank 1999, 129). The Shakers employed material, colour and light to create a multitude of thresholds and full sensory experience in the transition between spaces (Ibid.,126).
Program

The proposed meeting house structure mediates the architectural description of, and geometries within, the Holy City site plan, existing meeting house program elements as well as intrinsic Shaker architectural qualities. For the purposes of this thesis, these qualities are listed as,

a. Intrinsic Shaker architectural elements: symmetry, centre and procession.

b. Meeting hall programmatic elements: home, hall and hearth.

c. The ‘Explanations of the Holy City with its various parts and appendices pointed out’ meeting house guidelines (Philadelphia Art Museum Collection 1843[a]):

  • The meeting house or Sanctuary is located at the center of the Temple grounds.
  • Within each of the four quarters is to be seen the basement of twelve pillars, 10 feet square.
  • Roads leading to the meeting house are 100’ wide in each direction. The river running East to West is 40’ wide.
  • The circular wall round about the Holy Temple is seven hundred feet from the center of the meeting house in each way.
  • The height of the meeting house or sanctuary is approximately 100’ above the pavements below - making the structure a perfect cubic volume of 100’ by 100’ by 100’.
  • Locations and structures within the Holy City may be determined by measuring with a chain or pole from the marked center of the meeting house.
CHAPTER 2: DESIGN

Site

The overlay of the Holy City plan and topography presents an interesting design challenge. In addition to the presence of the East/West slope and water body, as mentioned earlier, the construction of a meeting house requires an elevated position (and presence in the landscape). The elevation of the area marked as ‘temple grounds’ surrounding the meeting house mediates the issues of slope and water while creating a clear vantage point and processional moment of arrival.

The introduction of the elevation platform preserves the integrity of the site plan, resulting in no adjustments to the visible geometry of the existing Holy City documents.

Site design sketch
Building design sketches & explorations of plan / section ‘centres’
Design

The concept of ‘centre’ emerged as a dominant consideration through which to mediate and organize the proposed meeting house structure. As previously described, The Holy City existed as a centre of both spiritually horizontal and vertical axis. This thesis proposes the three dimensional representation (and embodiment) of these axis through the mirroring of both plan (horizontal) and sectional (vertical) orientations. This approach is consistent with (and inspired by) the platonic geometry and dimensions of 100’ by 100’ by 100’ described within the Holy City documents.

An eight square grid (12’-6”) was employed as a lattice through which to programmatically inhabit the building’s (cubic) volume and quickly mediate between plan and sectional organization.
The proposed design is divided into a centralized meeting hall and surrounding service spaces. The meeting hall and service spaces are articulated and hierarchically differentiated through the use of masonry and wood materialities. The dance hall is expressed as a masonry core, acting to provide both (lateral) structural support to the surrounding wood structure and reinforce a somewhat poetic narrative of (relative) spatial permanence.
Initial structural explorations from 'birds' and 'below' eye views of the proposed exterior wood frame and meeting hall masonry core
Both plan and section were developed simultaneously and overlaid across one another throughout the design process.

The following pages outline floor plan, section, elevation, details and model diagrams of the proposed meeting house design.
Main floor plan diagram

Legend

1. meeting hall, 50' by 50' by 50' surrounded by four hearths, sky above and river below - wooden pegs mark where dancers may stand
2. meeting house vestibules and storage spaces
3. scissor staircase, wood, 7” rise and 11” run
4. covered East / West entranceways
Second floor plan diagram

Legend

3. scissor staircase, wood, 7” rise and 11” run
5. display areas for gift drawings and community documents
6. brother and sister washrooms
Third floor plan diagram

Legend

3. scissor staircase, wood, 7” rise and 11” run
7. common areas, used for gathering and contemplation
8. dwelling units (Shaker home) with private hearth, bedroom, washroom and storage spaces - interior windows provide access to natural light
Legend

3. scissor staircase, wood, 7” rise and 11” run
6. brother and sister washrooms
10. steps with access to underground river for bathing
11. basement storage and shelving
12. brother and sister change rooms for bathing
Legend

3. scissor staircase, wood, 7” rise and 11” run
10. underground river
13. basement, access to underground river
14. main floor, dance hall and entrance
15. second floor, viewing gallery
16. third floor, dwelling
17. roof and skylight
Legend

1. meeting hall, 50' by 50' by 50'
3. scissor staircase, wood, 7” rise and 11” run
10. underground river
13. basement, access to underground river
14. main floor, dance hall and entrance
15. second floor, viewing gallery
16. third floor, dwelling
17. roof and skylight
18. room of drawers - above the meeting hall
Legend

3. scissor staircase, wood, 7” rise and 11” run
13. basement, access to underground river
14. main floor, dance hall and entrance
15. second floor, viewing gallery
16. third floor, dwelling
17. roof and skylight
Interior elevations and dance hall floor plan composite diagram
Interior elevations and room of drawers floor plan (above dance hall) diagram
Interior elevation, wall of 100 drawers diagram
East / West building elevation diagram
North / South building
elevation diagram
Acrylic model elevation and detail photos
CHAPTER 3: CONCLUSION

This thesis began with an interest in the Shakers, their story and the intentionality with which they crafted their built environment. Specifically, the project emerged as a process of synthesizing and making accessible elements of the Shaker (architectural) story for contemporary and future audiences. It is important to note that the formal articulation (plan, section, elevation, etc.) of the proposed meeting or dance hall explored throughout this thesis is not viewed as an absolute or binding interpretation of Shaker works. Rather, this thesis explores one of many potential iterations or syntheses through which we might gain insight into Shaker works. This line of inquiry is of course not limited to the Shakers, or any one cultural group in particular. As such, this thesis may be understood as a preliminary exercise in exploring a cultural narrative through which design intentionalities might be better understood and shared with the world at large.
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______. 1843[b]. *Holy City*. Gift of Mr. and Mrs. Julius Zieget.


