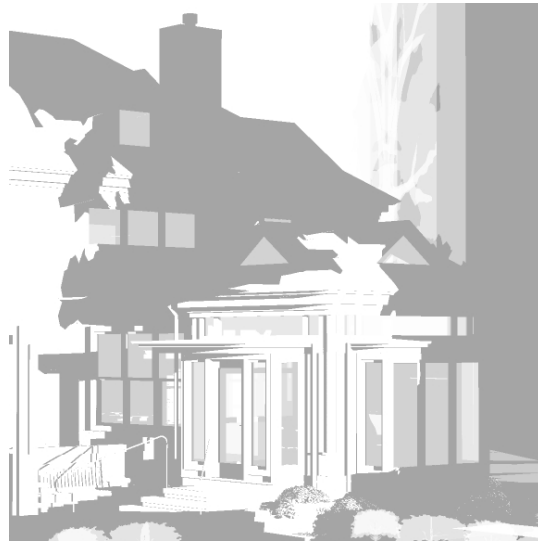


Curio #1: The Hopke Home Office



Collaborating with Yourself

When asked to design an addition to an existing building I view it as an opportunity to collaborate, not only with its owner and users, but also with the original architect. Typically, that individual is not available for direct collaboration. So I must become a detective, to analyze the original design objectives and then peer into the designer's mind to develop a deep understanding of the approach he or she used to try to achieve those objectives. And, if appropriate, I see it as my obligation to take up that designer's design vocabulary – expanded and embellished – to say something new and relevant to the current moment.

That task becomes simultaneously easier and more challenging when that original designer is yourself. Easier, because you know what you were thinking at the time. Challenging, because you have different priorities now.

Such is the task at hand: ***To create an addition to my existing home to provide a Covid-office for the present as well as a studio to use in retirement***

Functionally, the addition should have a flexible separation from the existing house to allow for private and public functions of home-life to co-exist in a controllable way. It needs a separate entrance, hidden from the residential street. The space within needs to accommodate hand-drafting, digital-drafting and in-person conferences. Dynamic access and storage of resources, digital devices and supplies is also a must.

Formally, the addition should extend the building through formal transformations, not by simple repetition, but through evolution of building forms reflecting its context and functionality as well as the changing image of "home".

The design problem thusly stated, below is a description of the design solution in a series of graphic images and text captions to elucidate them.

The existing home is...

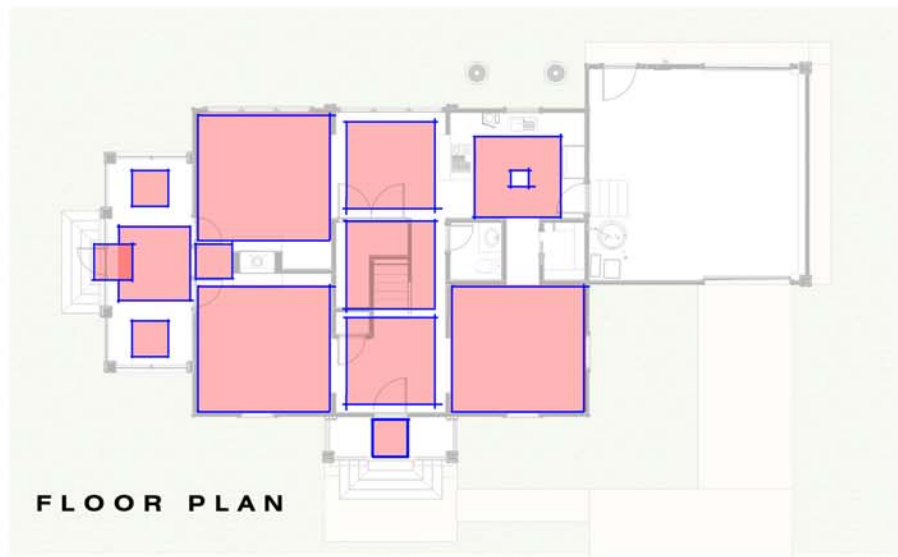
The existing home design was conceived as a simple 2-story box with a hipped roof, evocative of the building traditions of residential construction in Williamsburg Virginia, from the 18th Century through the early 20th. Trim detailing, while evocative of local Greek Revival traditions, is stylized and contemporary, earning the overall effect a “transitional” moniker.

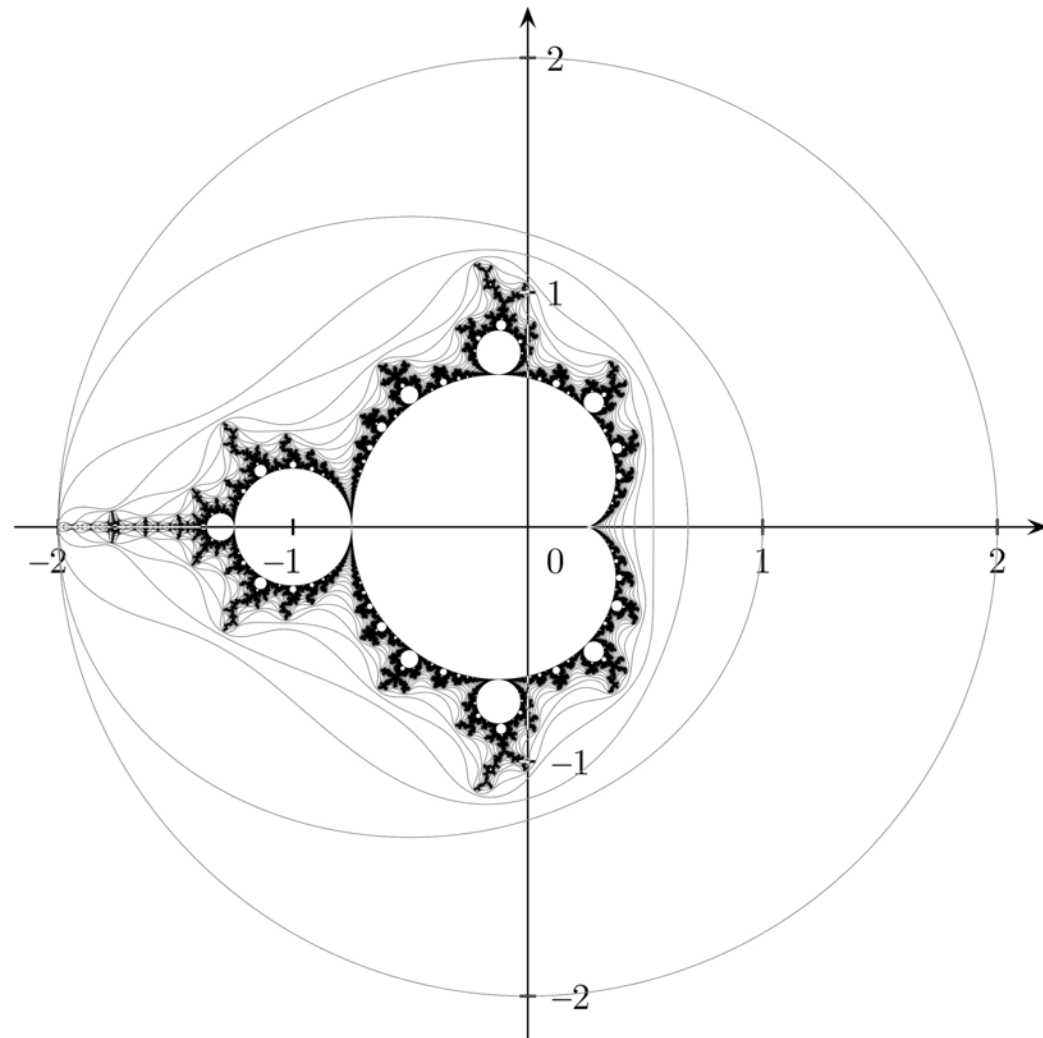


EAST ELEVATION

...a study in the formal transformation of “the square” using...

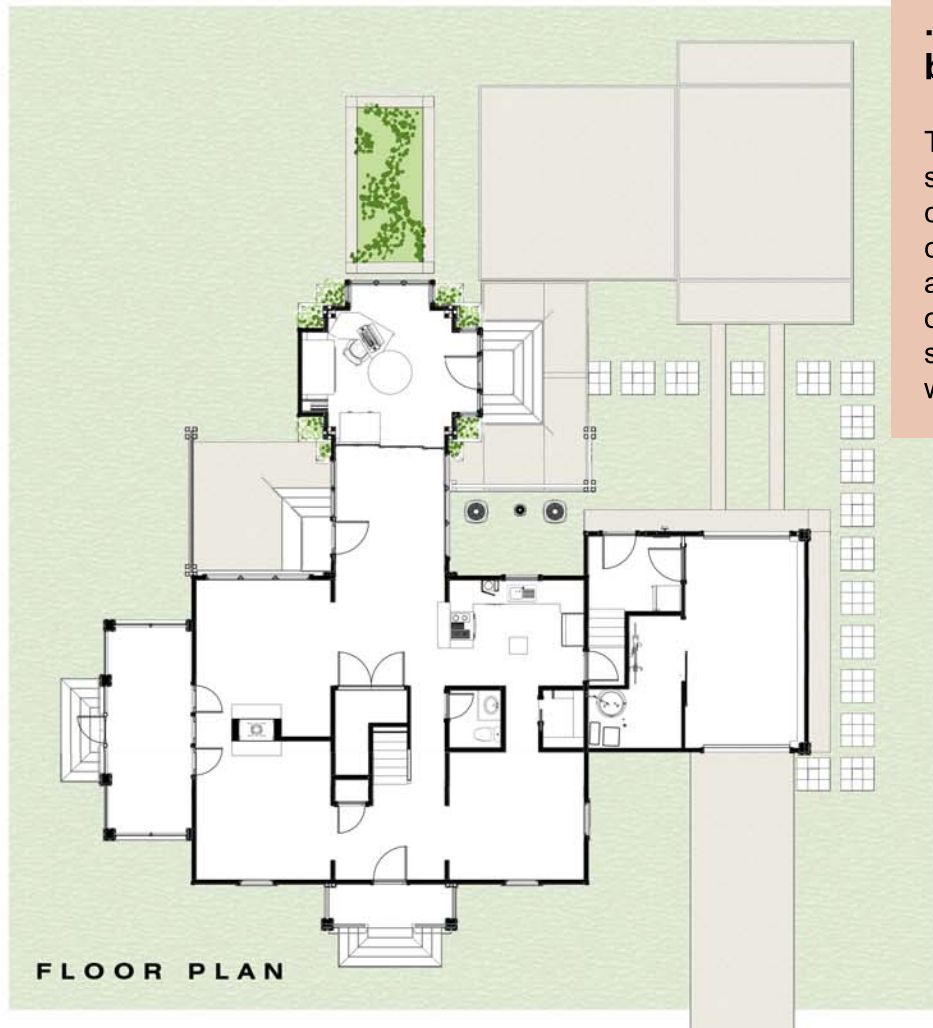
Symbolic of stability, the square was chosen as the source regulating form in plan and elevation. The East (street) façade is a study in regulating geometry, where overlapping squares define a central focus, capped by rotated (folded) squares to establish hipped and gabled roof forms. A two-story sun-porch to the South extends the geometric logic, but works in negative space to allow light and air to penetrate the form from the south. To the north, the garage balances the composition as a longer, lower, closed form, with a simple vehicular door on both the front and the back, in anticipation of future access to the rear.





...self referential growth patterns;...

As an old computer programmer, I love fractal geometry. The generation of many beautiful geometric designs, such as the famous “Mandelbrot Set” shown to the left, is the result of an algorithm that is self-referential. In programming language, it is a “recursive function”. In real life, it is omnipresent in the natural sciences, from biology to evolution. In architecture, I would argue, it is the root concept of Frank Lloyd Wright’s organic philosophy (“the nature of nature”). Key to its application in biology and architecture is, however, the introduction of context and functional criteria moderate the formal transformations. It is more than just a geometric exercise. Thus, a tree branches from its trunk in response to the availability of sunlight. Similarly a building orients its public edifice to the public right-of-way.



...following that logic dictates the addition also be formal transformations of a square:...

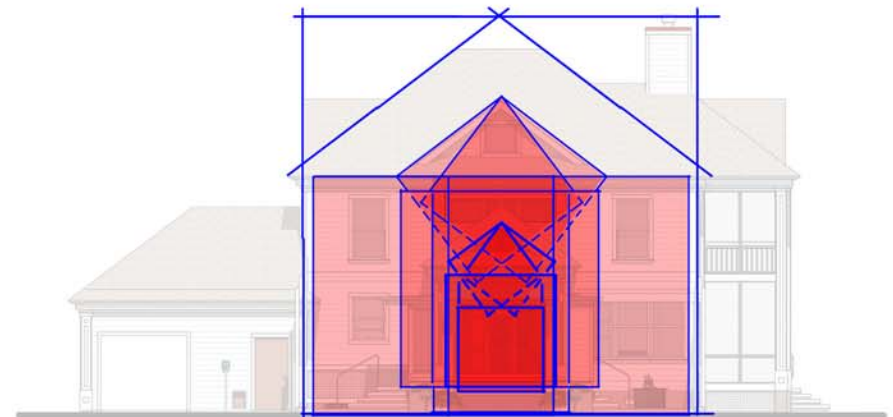
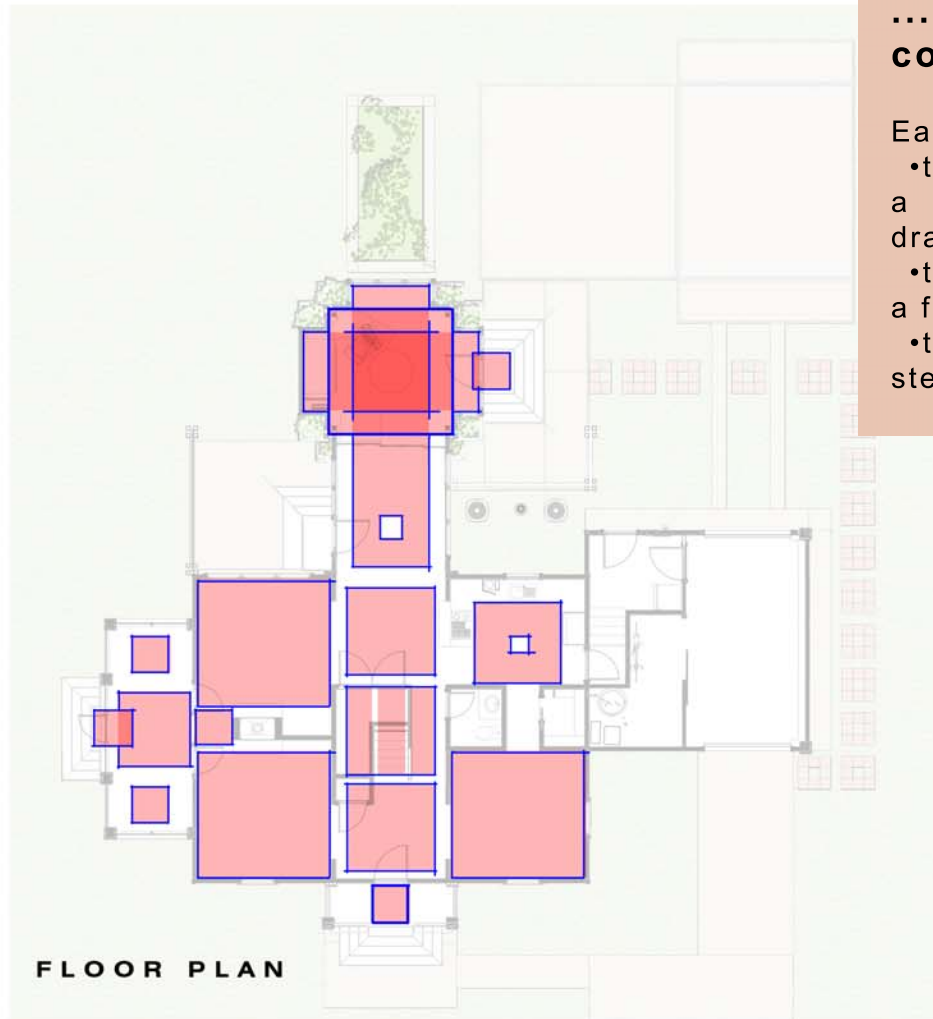
The studio addition is located in the rear yard, allowing for a semi-public entrance to the office, from a rear courtyard accessed by vehicle through the existing garage which becomes a convertible porte-cochere. From within, the studio is located along an existing line of circulation, centered upon the centerline of the house's main body. The root form of the studio is, again, a simple square in plan, extruded vertically in space, and capped with a pavilion roof (folded squares).



...pushed, pulled and rotated in response to its context...

Each of the three exterior sides is an extruded square:

- to the south, is the drafting bay, with only a small window to allow a concealed window to wash natural light indirectly upon the drafting board;
- to the west, is a window bay, cantilevered into the rear yard above a formal, kept rain garden; and
- to the north, is the entry bay with a covered landing and waterfall steps down into a car courtyard.



**...and the multifaceted
functions it must house;
including...**

The fourth side is the connection back to the main body of the house – a barrel roofed “hyphen”... which we call “the commute”... that effectively enlarges the existing breakfast room into a multi-purpose room that can be used for larger meetings (occasionally) as well as larger family gatherings (typically). The studio is separated from the commute by a collection of sliding doors with glass panels. The doors can be arranged in alternative patterns: all closed or overlapping to control the view and openness of the studio to the house. The glass panels are colored in various primary colors, creating new colors as they overlap.





...traditional drawing,...

So, as a simple studio, all of the resources are readily available, within arm's length. The drafting table is tucked under and between storage areas for reference materials, while maintaining the space to roll out a full size set of drawings. A hidden window allows natural light to wash directly down on to the drafting board. With the doors partly closed, the studio as a space becomes visually connected to the house, just a quiet refuge from the goings on at home.



...non-traditional drawing,...

The space is also properly equipped to operate as a digital studio, with drafting completed with a monitor and large display tablet. The center table can be unlocked and rotates as a 'lazy susan', allowing me to leave even more reference material out, but all still be equally accessible, an idea shamelessly stolen from Thomas Jefferson.



...meetings...

As a conference room, the Lazy Susan is locked to create a small conference room comfortably seating 4 to 5 persons, including me..... the doors slid closed to provide privacy for the rest of the home.

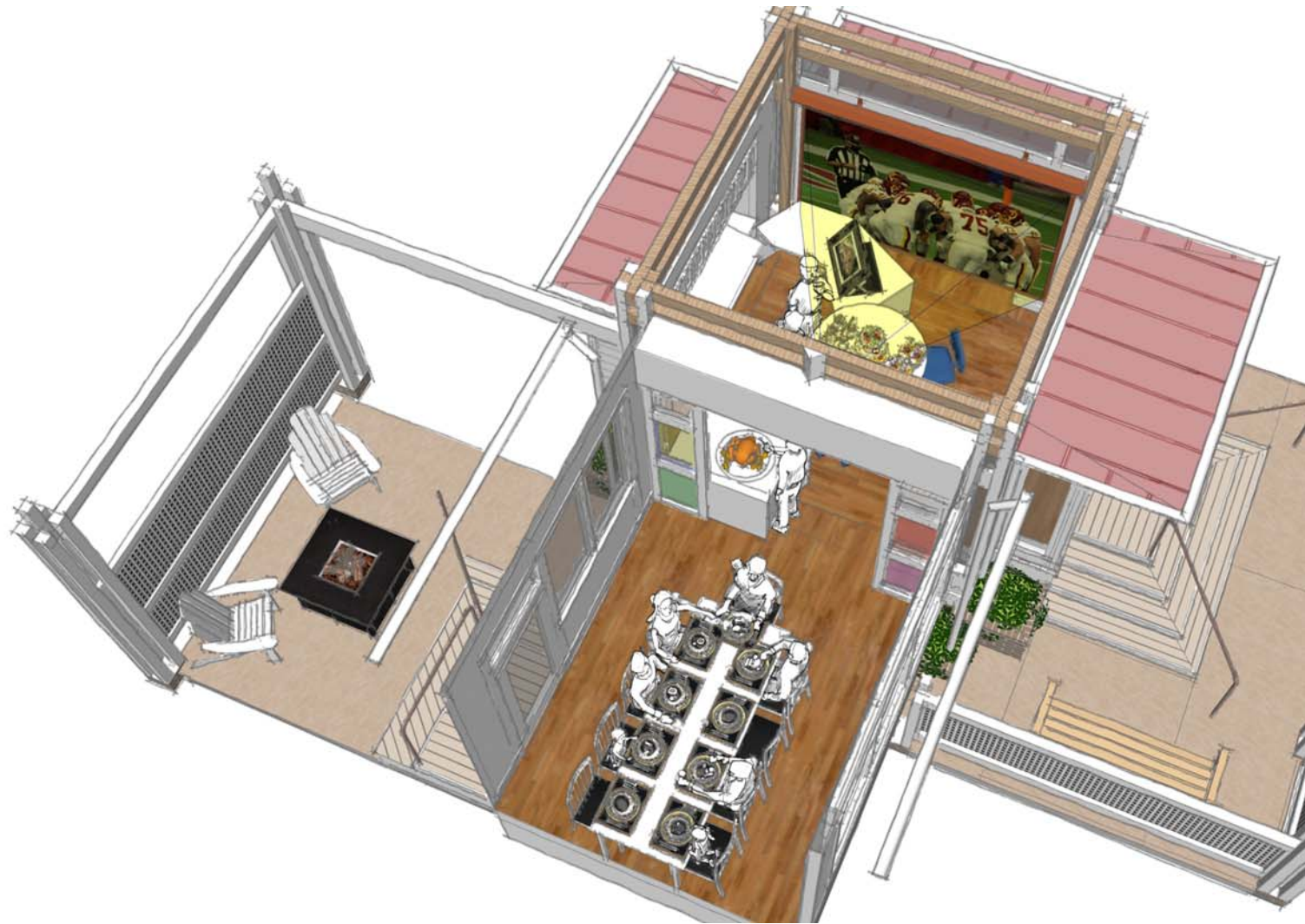
...collaboration, and...

For digital work and presentations, a screen drops down from the west wall and an LCD projector projects from above, mapping images directly from the display tablet. Design work in 2d and 3d can be developed and modified in real time in front of guests, providing for a true collaborative design charrette.



...family time.

Weekends, holidays and in the evenings, the studio can open up almost completely, extending “the commute” and doubling as a home theater or even a dessert table at Thanksgiving.



In doing so, the building doesn't just change, it evolves.



When all of these functional criteria are addressed through the use of formal transformations, built upon the organizational patterns and geometric forms of the original home, something special happens. The building doesn't just change, it evolves. In this case, it evolves to blend work-life into the home in a balanced flexible way. By combining space, form and functions in this way, it not only solves a problem... it communicates a vision.... It heralds a new and healthy relationship between our domestic and business lives in these strange and uncertain times.