THE NEW URBAN HOME IS A GARDEN HOME
Haskell Health House
Design Manifesto

by

Jen Weaver
Registered Architect

Architecture and Construction
Weaver Buildings

Landscape Architecture
Studio Balcones

Structural Engineering
Structures

Mechanical Engineering
Positive Energy

Architectural Photography
Atelier Wong

Lifestyle Photography
Moyo Oyelola
SO, WHAT IS A “HEALTH HOUSE?”
Richard Neutra’s Lovell Health House, built 1927 to 1929 in Los Angeles inspired the Modern architecture movement in America. It was the first steel-framed house in the USA, became the figurehead for Philip Johnson’s curated “The International Style” in the MoMA and generally set the tone for California Cool. The house holds the first residential LED - a “Model A” head lamp in the stair. Neutra’s design, the Lovell Health House, is a design icon, still featured in movies like LA Confidential.

Now, the less-discussed topic is the fusion of health and architecture. The client, Dr. Philip M. Lovell, was a prominent physician and naturopath with a weekly column “Body to Care” in the LA Times. His request to the then 35-year old Neutra, “Design me a house that will enhance by its design the HEALTH of the inhabitants of this house!”

Neutra designed outdoor sleeping porches, an exercise yard and equipment, a cantilevered swimming pool, basketball and handball court, etc., along with an abundance of operable windows allowing easy access to nature. The kitchen was outfitted with special water purification equipment and vegetable / fruit juicing facilities. The indoor and outdoor kitchen facilitate the hour-a-day Dr. Lovell recommended all patients spend out-of-doors.

What would a “health house” look like in contemporary Austin? How could these ideas of healthy living be adapted to urban infill lots? Is it possible to design affordable architecture that feels both minimal and luxurious?
HASKELL HEALTH HOUSE
850 sf of indoor living + 1100 sf of outdoor living = 1950 sf total living

850 sf of interior living space

1100 sf of exterior living, including:
  - roof deck, 150 sf
  - screened master porch, 105 sf
  - guest porch, 30 sf
  - outdoor kitchen and dining, 430 sf
  - cocktail lounge with firepit, 115 sf
  - front porch, 115 sf
AUSTIN, TEXAS
(30.250848, -97.722762)
Metropolitan population: 1,950,100
University of Texas population: 50,950 students
Major Industries: Technology, Pharmaceutical, Biotechnology, State Legislation, Music, Restaurants
Introduction: The New Urban Home is a Garden Home

The Haskell Health House is designed upon the premise that health is a qualitative descriptor of a lifestyle. Design features that promote an active occupant lifestyle, that utilize fresh air, and that bring programmed living space out into the surrounding landscape all combine to provide a new take on the healthy urban home.

Local Context:
The Urban Institute predicts a 55% growth rate from 2016 to 2030, bringing our population to 2.76 million people in 2030. The dramatic population increases in the City of Austin create an intense demand for affordable urban housing. City planners have responded by loosening the restrictions for garage apartments and accessory dwelling units, although zoning regulations remain unchanged.

Outside of the building department but within the confines of code and the law, attorneys and architects create condo documents that legally divide multiple dwelling units into separate entities for multiple owners. Increased demand for the same finite resources requires consumers and designers to be more conscientious about consumption, but using fewer resources should not limit the pleasure and enjoyment of the design solution!

Site Specifics

Neighboring Amenities:
The close proximity to Ladybird Lake Trail and surrounding parkland create a cooler microclimate along the river, and this particular site benefits. Birds sing in the morning, it rains slightly more often than a few blocks north due to the density of trees and thereby increased moisture content, and the soil is incredibly fertile as it was formerly riverbed before the dam downstream was built. The property is NOT in the FEMA 100-year flood plain.

Festival Beach, the new Food Forrest and the future Holly Shores development are all less than a 1/4 mile away. The James Beard-nominated “Launderette” brings the city’s hippest foodies just across the street from Haskell Health House. Local coffee shops and long-time taquerias provide residents with walkable consummables. Public transit provides a 10 minute ride to downtown.

Local Building Codes & Restraints:
- Accessory Dwelling Unit: Maximum 850 sf of interior building space (Has since changed to 1100 sf.)
- McMansion Ordinance: Restricts building heights to follow pitched roof lines along property lines.
- Side yard Easements: The lot is 41-feet wide, and side yard restrictions limit the building from being within 15 feet of the street side and 5 feet from neighboring property, leaving a remaining 21-foot max building width.
- Powerline Easements: Powerlines on the north, south and west property lines, each with a 13-foot easement, restricted development.
- Reduced Impervious Cover: The zoning for this single-family use type indicates impervious cover should be 45%, but due to a Waterfront Overlay District, impervious cover is restricted to 40%.
Architecture

Concepts:
- Buildings that breathe keep energy costs low, encourage daily interaction with environment.
- Landscaped living partners with the tight interiors to extend living outside.
- Dual-use programming allows for the most efficient space design while meeting all programming needs.

Inspirations:
- Ship Interiors: space planning for bedrooms, galley-like kitchen
- Kyosho Jutaku influence: experimental, playful infill architectures in Tokyo

Description of Design:
A tight, white metal envelope wraps the roofs and walls, notating three shifted volumes. The master volume slopes toward the street, the guest volume slopes toward the alley, and the middle stair volume slopes both directions creating a visual diamond from the southern street approach. Exterior rooms push and carve their niche with cedar cladding and dark fixtures, recalling warm notions of neighboring bungalows. The efficient configuration is achieved by dual-purpose programming: the stair contains a bathroom, kitchen, all of the buildings circulation paths and acts as a heat stack, the master bathroom is also the laundry room, and the dining is also the entry. An indoor and outdoor kitchen connect with a pass-through window, connecting meal preparation areas for parties.

The slim and tall wall profile required extra involvement with the engineer to insure a seamless structural solution. The overall structure was designed to withstand wind speeds up to 115 mph. The foundation system is a 4-1/2” slab-on-grade with a vapor barrier over structural fill and is supported by grade beams. Built-up stud columns and structural steel supporting the upper level floor framing are located along the grade beam lines. The upper levels are made up of 18” deep pre-engineered wood trusses at the master bedroom and 2x framing at the guest room. The truss assembly allows for ductwork to pass within the webs of the structure, allowing for a higher ceiling profile in the living room than may occur otherwise. The roof’s structural system is comprised of 2x framing. Simpson hurricane clips have been included into the connections for the framing to the stud wall system to address uplift of the structure due to high wind loads. In addition, this resolves the uplift of the cantilevered roof members above the master deck. The building’s structure resists lateral wind forces by wood-framed shear walls. Where the allowable wall space is narrow, Simpson Strong Walls have been incorporated to resolve the lateral wind forces. A structural steel frame at the carport maximizes the opening available between the house and the yard. The connections allow the beam and column system to act as framing and resolve lateral forces at the guest portion of the dwelling.

Defining Efficiently (or what we chose not to do):
- No LEED, AEGG: The energy-saving and “green” measures in these programs were more feasible for larger projects, but difficult to employ here.
Guest Suite:
- Bedroom
- Bathroom
- Porch
- Includes individually controlled climate zone
Master Suite:
- Bedroom
- Bathroom
- Screened Porch
- Includes washer/dryer in bathroom, individually controlled climate zone
Natural Ventilation

Isolated Mechanical Zones
Ventilation & Envelope Design

Concepts:
- Cross ventilation feeds heat stack, facilitating constant air circulation
- Air-tight and thin exterior walls facilitate sophisticated mechanical design
- Isolated mechanical zones provide control options

Inspirations:
- Sleeping porches from 20th century bungalows
- Natural ventilation of 20th century

Description of Design:
A passive system offers the option for natural ventilation in temperate weather. The stairway acts as a heat stack, allowing heat to rise and move out of the building. Hopper windows above doors in all rooms allow new, fresh air to come into the building, creating a passive cooling system with dramatically lower energy bills. Unlike older passive systems, this is burglar-proof for this urban site.

The mechanical system is well-sealed by a high-heat, low temperature air-tight vapor barrier. A high-efficiency 3-head multi-split heating and cooling unit allows for independent controls of the mechanical system. For example, public space could use the passive system and the bedrooms could use private mechanical zones. A windowless west facade limits heat gain from late afternoon sun.

Wood floors slide underneath the drywall to allow for expansion and contraction induced by the natural ventilation system without wallboard damage buckling in the wood floor.

Designing Efficiently (or what we chose not to do):
- No Passivhaus: Would require triple-glazed windows, more efficient in colder climates
- No super-insulated walls: Tight 850 sf prohibits 11-14” thick walls
Landscaped Living

Concepts:
- Spaces sited for specific program / specific time of day
- Designed visual segues and individual focal points between programming
- Landscaped living vs lanscaped viewing
- Programmed internal living moves to the exterior
- 100% native and drought tolerant plants used
- Irrigation:
  - Drip irrigation, tempered by rainwater gauge
  - Gutters connect to french drains, directly water rangeland plantings

Inspirations:
- “Hypernature” by Matthew Urbanski

Description of Design:
The Haskell Health House design extends the activity of the residence to the outdoors- creating flexible living spaces that are integrated with the architecture. With the site naturally raised above the street, the distance landscape types accentuate the changes in grade. At street level, billowing grasses offset structural agaves. At the house level a diverse meadow referencing the Texas Blackland prairie is ornamented with Desert Willow Trees. A rescued prickly pear and loquat tree are also highlighted by the meadow landscape. The meadow is made up of native as well as edible plants, and can be used for its beauty or seasonally harvested by the residents. Closest to the residence, a series of dwelling spaces wrap around the home. A gravel area for gathering connects to a stretch of lawn for lounging or bocci ball. Behind the home- an outdoor dining and kitchen area are framed by verdant plantings. This space for daily gathering looks into the display bosque- where Possumhaw Holly trees stand in verdant grasses.

Designing Efficiently (or what we chose not to do):
- No rainwater collection or gray water use
- too small of a collection for the roof area, instead water is redirected to yard for direct irrigation
DESIGN DEVELOPMENT
2201 HASKELL STREET
16.02.10

HYPERNATURE PLANTING

STANDING CYPRUS
Ipomopsis rubra

GREGGS MISTFLOWER
Conoclinium Greggii

OREGANO
Oregano vulgare

PURPLE CONEFLOWER
Echinacea purpurea

SOCIETY GARLIC
Tulbaghia violacea

THYME
Thymus vulgaris

PINE MUHLY
Muhlenbergia dubia

(LOQUAT - ESXTG)
Eriobotrya japonica
10-15'

AGARITA
Mahonia trifoliolata
4-8'

MEXICAN PLUM
Prunus mexicana
10-15'

DESSERT WILLOW
Chilopsis linearis ‘Burgundy’
6-8'

BOTTLEBRUSH BLAZING STAR
Liatris mucronata

DEsert GloBeMAlLoW
Sphaeralcea ambigua

GREGGS MISTFLOWER
Conoclinium Greggii

OREGANO
Oregano vulgare

PURPLE CONEFLOWER
Echinacea purpurea

GUARA
Guara lindheimeri

MEXICAN HONEYSUCKLE
Justicia spicigera

STANDING CYPRESS
Ipomopsis rubra

AGARITA
Mahonia trifoliolata
4-8'

MEXICAN PLUM
Prunus mexicana
10-15'

DESSERT WILLOW
Chilopsis linearis ‘Burgundy’
6-8'

BOTTLEBRUSH BLAZING STAR
Liatris mucronata

DEsert GloBeMAlLoW
Sphaeralcea ambigua

GUARA
Guara lindheimeri

MEXICAN HONEYSUCKLE
Justicia spicigera

STANDING CYPRESS
Ipomopsis rubra

........Hypernatural Planting Gallery
HARDY RANGE PLANTING

- **PRICKLY PEAR**
  Opuntia engelmanni

- **DWARF CENTURY PLAN**
  Agave desmettiana

- **SOAP HYBRID ALOE**
  Aloe grandiflora maculata

- **’BLONDE AMBITION’ BLUE GRAMA**
  Bouteloua gracilis ‘Blonde Ambition’

- **TEXAS PERSIMMON**
  Diospyros texana

10-15’
......Viewing Bosque

INLAND SEA OATS
Chasmanthium latifolium

POSSUM HAW
Ilex decidua ‘Warren’s Red’
10-15’
SCREENED EDGE PLANTING

**SPLIT LEAF PHILODENDRON**
*Philodendron selloum* 'Xanadu'

**SPLIT LEAF PHILODENDRON**
*Philodendron selloum*

**GIANT LEOPARD PLANT**
*Farfugium japonicum* ‘Giganteum’

**WILL FLEMING YAUPON**
*Ilex vomitoria* 'Will Fleming'
6-8'

**BAMBOO PLANTING AT FENCE**

**BAMBOO**

**MUSCADINE GRAPE**
*Vitis rotundifolia*

**BUTTERFLY IRIS**
*Dietes grandiflora*

**DWARF SPOTTED LEOPARD PLANT**
*Farfugium japonicum*

**VIRGINIA CREEPER**
*Parthenocissus quinquefolia*

**CROSS VINE**
*Bignonia capreolata*

**SPLIT LEAF PHILODENDRON**
*Philodendron selloum*

**GIANT LEOPARD PLANT**
*Farfugium japonicum* 'Giganteum'

**WILL FLEMING YAUPON**
*Ilex vomitoria* 'Will Fleming'
6-8'

**SPLIT LEAF PHILODENDRON**
*Philodendron selloum* 'Xanadu'

**GIANT LEOPARD PLANT**
*Farfugium japonicum*

**WILL FLEMING YAUPON**
*Ilex vomitoria* 'Will Fleming'
6-8'

**INLAND SEA OATS**
*Chasmanthium latifolium*

**POSSUM HAW**
*Ilex decidua* ‘Warren’s Red’
10-15'

**VIEWING BOSQUE PLANTING**

**VIEWING BOSQUE**

**BAMBOO**

**VIRGINIA CREEPER**
*Parthenocissus quinquefolia*

**CROSS VINE**
*Bignonia capreolata*

**MUSCADINE GRAPE**
*Vitis rotundifolia*

**BUTTERFLY IRIS**
*Dietes grandiflora*

**DWARF SPOTTED LEOPARD PLANT**
*Farfugium japonicum*
SLEEPING PORCH

ROOFTOP YOGA

© 2015 Patrick Y Wong / Atelier Wong.com
PORCH COFFEE

BOCCCE COURT
OUTDOOR DINING

GREEN TRANSIT
COCKTAIL LOUNGE

IN/OUTDOOR KITCHEN
Conclusion

Haskell Health House depicts a future in which the new urban home truly celebrates garden living. Reduced impervious cover allows for greater recharge of our underground water resources. Landscaped living fosters natural habitats to be a greater part of our daily life, not relegated to visitation in municipal and state parkland only. Individuals who can connect with nature every day on their personal urban nature preserve can lead more fulfilling, healthy lives.

Hopefully, the increasing interest of Accessory Dwelling Units and multiple owners within single properties allows the city to modify zoning requirements to accommodate higher density development in a more controlled way. Reducing minimum lot sizes and accommodation for more ownership entities, while requiring less parking and easier access to obtain private meters can contribute to individual ownership of smaller spaces. This enables more people to share the capitalized resource of space, making more units affordable to downtown proper.

As Mies van der Rohe so popularly shared, “Less is more.” Within our current context of sharing finite resources, the Haskell Health House proves that using fewer resources in building consumption and in energy systems can provide both a healthy and luxurious solution.
Hosted by Yana Gilbuena of SALO & Irvianne Torremoro of Flavor & Bounty. The Philippines has a second independence day that is shared with America’s Independence day and Chef Yana G, the nomadic chef recently profiled in the New York Times, shared her cuisine at the nearly completed Haskell Health House.
HASKELL HEALTH HOUSE DESIGN PREVIEW
Hosted by Chef Joseph Gomez of Talabeth and Irvianne Torremoro of Flavor & Bounty. Talabeth features Mexican and Filipino fusion, without waste, gluten or GMOs. The party hosted 150 local designers with comfort and privacy for intimate conversations.
THE NEW URBAN HOME IS A GARDEN HOME.