

GAMUT: The Spatial and Generational Mapping of Trees and Vegetation of the Solon House

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Abstract

GAMUT identifies and explores the trees and vegetation of the Solon House post-World War II. The Solon House refers to family, architecture, and estate deeply rooted in Mabolo, a village in Cebu City, the Philippines. Maps (historical, DENR cadastral, and subdivision survey plans), legal documents, and old photographs help locate and support the study. The Quantum GIS application is utilized to map the trees and vegetation across generations. Rooted in autoethnography and phenomenology, the researcher's own experiences, together with the lived experience narratives of family members, are collected and thematically coded to extract recurring vegetal metaphors. Trees and vegetation are active participants in memory and meaning-making. For example, a dakit tree planted sometime in the 1940s as a boundary marker kept alive the folklore of *ada* (*engkanto*) from the ancestors to descendants' own lived experiences. The paper also explores the Cebuano word *gamut*, its metaphorical essence, and relationships with words in Filipino and English, informing the significance of vernacular language heritage. Apart from serving as one of four vital articles for the family's second book project, the paper also informs Filipino notions of kinship and place, as well as plant humanities in Southeast Asia.

Keywords: ethnicity, autoethnography, phenomenology, Solon House, plant humanities

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Introduction

Trees and vegetation shape the spaces we inhabit. They hold value and meaning crucial to self- and collective identity, as well as core and cultural memory. Underneath their visible trunk or stem, leaves, flowers, and fruits form a communication superhighway and ancient wisdom that ensure survival and the grace to thrive—gamut. Which plant or tree makes a good companion to another plant or tree—the placement of each root and the time of planting follow a story, a science. In a residential estate, spatial mapping of the greens helps understand levels of relationships not limited to soil nutrition and vegetal growth, but more importantly, their nurturing relationship to human inhabitants' activities, values, and ethos (placemaking).

Needless to say, as I gathered information to map my paternal family tree and collect lived experiences with *katingalahan*, or the supernatural, in the Solon House, I found a recurring vegetal theme. From there, a curiosity maps through questions like: What trees and vegetation thrive/d across generations of the Solon House? Where are/were they specifically located and grown? How are/were they utilized by the Solon House? What stories and memories do/did they keep?

Gamut: Rooting the Solon House in History

In 1934, before the Second World War, through an arranged marriage by their parents, my paternal grandparents, Tatay Andy and Lola Nena, married at the ages of 21 and 22. They had lived and started their family in what is later referred to as the Solon (Ancestral) House located in Mabolo, a village in Cebu City, Visayas, the Philippines.

The Solon House in this paper refers to *family* (from the 1st to the 4th Generations), *estate* (located in Mabolo), and *architecture* (the changing structure that accommodates four generations since 1934).

The Solon House of the 1st Generation was a stone's throw away from Tatay Andy's parents' house. It is the second house from the main street (the one with the purple dot in Figure 1); the lot next to the main street belonged to his cousin; and the next houses before the river belonged to his two sisters. Their children's first playmates would be first and second cousins. That continued to the 4th Generation. Clearly, a tightly knit family and clan, a Filipino and Southeast Asian notion of kinship and place, deep and tight root connections, the "crucial component of children's sense of self as they learn to locate themselves and others around them in relational social networks" (Bhardwaj & Ray, 2024).

Even in the cemetery at the reclamation area of Mabolo, their eternal resting place, Tatay Andy, together with Lola Nena, their siblings, and siblings-in-law, are neighbors. They are resting next to their cousins and other relatives. So, whenever we visit them during All Souls and All Saints Days, we also reunite with our living relatives, like a celebration. Balota (2022) wrote, "There is a celebration of family in each one of us because celebrations of family honor one's roots, identity, and person." and to which Aguilar (2022) strengthened by giving "clarity to one's identity—that one does not stand alone in a forest of trees. Just like how trees communicate through root connections."

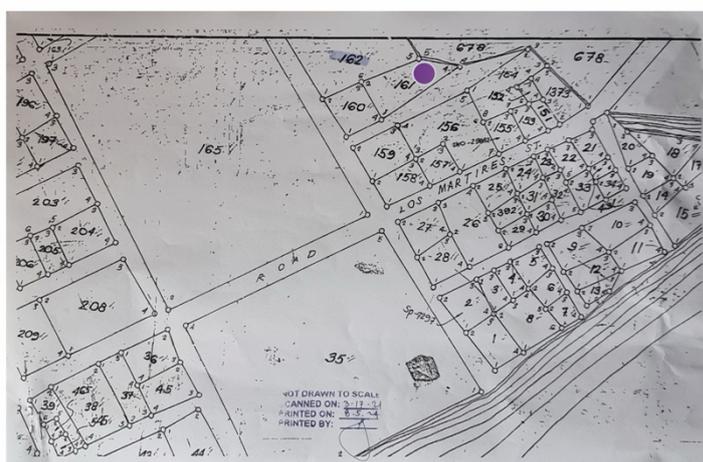
Tatay Andy and Lola Nena are the Solon House 1st Generation or gamut dakù, the primary root according to Wolff (1972). From the same Austronesian language family, the Cebuano

word gamut (*root*) and the Tagalog or Filipino word gamot (*medicine*) are related to trees and vegetation. Interestingly, from the Indo-European language family, the English word gamut (*a complete range*), such as “The four generations comprise the whole gamut of the Solon House in this study.”

The three words gamut, gamot, and gamut relate to family roots and vegetation.

Figure 1

Mabolo Cadastral Survey Map 1906–1907



Mabolo
Cadastral
Survey
1906 - 1907



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Note/Source. KAMC2025 presentation slide; map source: Department of Environment and Natural Resources Region VII (DENR-7).

The cadastral survey map of 1906–1907 shows the mother lot of the Solon House (with a purple dot). This also means that my ancestors have planted their roots in Mabolo, in Wolff’s (1972) additional meaning for gamut as “staying long in a place, be well-founded, established.” To date, the family has deepened its roots in the same village and city.

Autoethnography and Phenomenology

I designed this paper using autoethnography and phenomenology. Autoethnography, as defined by Adams et al. (2017), is a research method that uses personal experience (auto) to describe and interpret (graphy) cultural texts, experiences, beliefs, and practices (ethno). It intertwines autobiography and ethnography. When we write about the self, we often call on memory and hindsight to reflect on past experiences; talk with others about the past; examine texts such as photographs, personal journals, and recordings; and may even consult with relevant news stories, blogs, and other archives related to life events (Adams et al., 2017). Moreover, the inspiring versatility of storytelling aspects in phenomenology, as in Konate and Mainah (2021), is taken into account in this paper to thematically process the lived experiences of family members.

Stories As Heritage

I take to heart what Dr. Erlinda Kintanar-Albuero (2015) wrote that stories are part of intangible heritage, so it is essential to preserve them; they tell us about the worldview, feelings, and attitudes of people that historical accounts do not give. To promote cultural

continuity, I am racing against time to document and record whatever wisdom and information I can from the 2nd Generation, now in their late 70s and mid-80s.

This paper is the second offshoot of the Katingaláhan (or Supernatural) study. I have previously gathered stories and lived experiences relating to katingaláhan from family members, including my own. Aside from the recurring vegetal themes, this paper maps the trees and vegetation of the Solon House, their memories, and meanings.

Mapping and Placemaking

Physical environment is a powerful space. It nurtures identity, both individual and collective, “and in turn is imbued with new meanings as people enact culture in it” (Bhardwaj & Ray, 2024). The elements that create it, including and especially trees and vegetation, become participants in the creation of meaning. Osborne et al. (2022) map the root systems of individual trees in a natural community, while Immitzer and Atzberger (2023) study the success stories and possible ways forward for tree species diversity mapping. Other recent studies explore meaning and human interaction with nature, climate change, and the general Anthropocene from various lenses and disciplines, including science and ecology (Filho, 2023; Rantala & Höckert, 2023), communication (Huhmarniemi & Joy, 2022), and culture (Koistinen et al., 2023).

While the research articles touch on mapping, nature, and placemaking, there is no existing research that focuses on the spatial and generational mapping of trees and vegetation, particularly the family and its environment.

Placemaking

The collective memory of the Solon House accounts for trees and vegetation playing roles in placemaking, including childhood and play, adult drinking sessions, and the site of katingaláhan.

Childhood and Play. From carriers of children during tree-climbing on kaimito (star apple), tambis (water apple), bayabas (guava), atis (sugar apple), and lubi (coconut) to home and hiding place during play like Japanese game, lut-hang, tago-tago (hide and seek), and gubat-gubat (war games), their value and space hold core childhood memories. In addition, they are sources of ammunition from bunga sa lambanog for tut-ho to bato for sungka. They are givers of nourishment and ease: prutas (fruits)—eaten presko (fresh) like butung, kaimito, bayabas, atis, tisa, tambis, chikos; gi-dulce (sweetened, preserved in jars for longer shelf life) like iba; gilamaw (fresh with ice and condensed milk) like kaimito, butung; medicine: mga dahon (leaves) treat ailments—abgaw (for cough and sore throat), bayabas (for wounds), paspas sa dapang. Furthermore, they are used as a whip for punishment, like the branches of the iba (cucumber tree). Additionally, they invited curiosity and helped build character.

Adult Drinking Session. Trees and vegetation are part of tagay (drinking alcohol), which takes place usually under a tree or trees for shade and easy access to pangihi (urination).

Site of Katingaláhan. From the stories of Lola Nena down to the experiences of descendants, references to the supernatural are included in oral tradition, such as agta, engkantada (fairy), white lady, and sigbin, to mention a few. They are also paasohanan (area

for burning dead leaves), especially when family members arrive home from attending a wake or burial, or visiting the cemetery.

Boundary Markers. In olden times, instead of mohon (concrete monuments), trees and vegetation are used as boundary markers—in the Solon House ancestors utilized trees for: (1) outer boundaries— lubi, kaimito, and dakit to mark the of the estate; (2) inner boundaries— tambis, iba, chikos, atis, tisa, bayabas, balingbing as place markers close to the physical house for easy reference (ex. hayhayan dapit sa chikos/ laundry are near the chikos; tua sa may balingbing/there by the balingbing).

But Why Map?

Firstly, no one is doing it. To my knowledge, this is the first research article that attempts to map the trees and vegetation of the family across generations. There have been land survey activities for the Solon House, mapping the boundary of the small estate. Similarly, there have been oral traditions relating to trees and vegetation, but no consolidated documentation of spatially mapping trees and vegetation across generations, with the oral traditions that interact with them. Secondly, the value of continuity is rooted in the preservation of ancestral knowledge. Passing down to descendants the wisdom and lived memories of their ancestors is crucial and again, “a matter of survival” (Kintanar-Alburo, 2015). Thirdly, the strength of owning lived experiences validates personal internal landscapes, meaning-making, and relationships. Fourthly, the worth of sharing, documenting, and archiving experiential encounters encourages communication. Lastly, my home island of Cebu experienced the most horrendous flash floods and landslides driven by Typhoon Tino (Kalmaegi). The death toll to human lives, nature, architecture, and belongings is heart-wrenching. While the world communally feels the impact of climate change, this is to say that the crises of Typhoon Tino is not only sociopolitical but also ecological—so, this paper joins the discussion not only on the notions of kinship and place, but also plant humanities in Southeast Asia—the relationship of the family with nature and environment, and the naming of plants and trees in Cebuano language which promotes vernacular language heritage.

Mapping the Roots of the Solon House

Survey maps from the Department of Environment and Natural Resources Region VII (DENR-7), including the Mabolo Cadastral Map of 1906–1907 and Subdivision Survey Plan of 1960, were used to trace the mother lot of the Solon House and the shape of the subdivided lot with technical description (also reflected in the land title).

The technical description of the Solon House was projected using Quantum Geographic Information System (QGIS) with Google historical satellite imagery as background to show not only the vegetal climate, but also the environmental changes throughout the years. The best image of the location is shown in Figure 6.

Guided by 2nd and 3rd generation family members, who collected reimagination and reconstruction of the trees and vegetation, with the aid of AutoCAD, simple two-dimensional sketches map trees and vegetation across four generations in Figures 1 to 4.

In 2016, a verification survey confirmed that the lubi 1, lubi 2, lubi 3 (coconut trees), and kaimito 3 (star apple tree) of the 1930s are boundary markers that outlasted the private survey mohon (monument) of 1960.

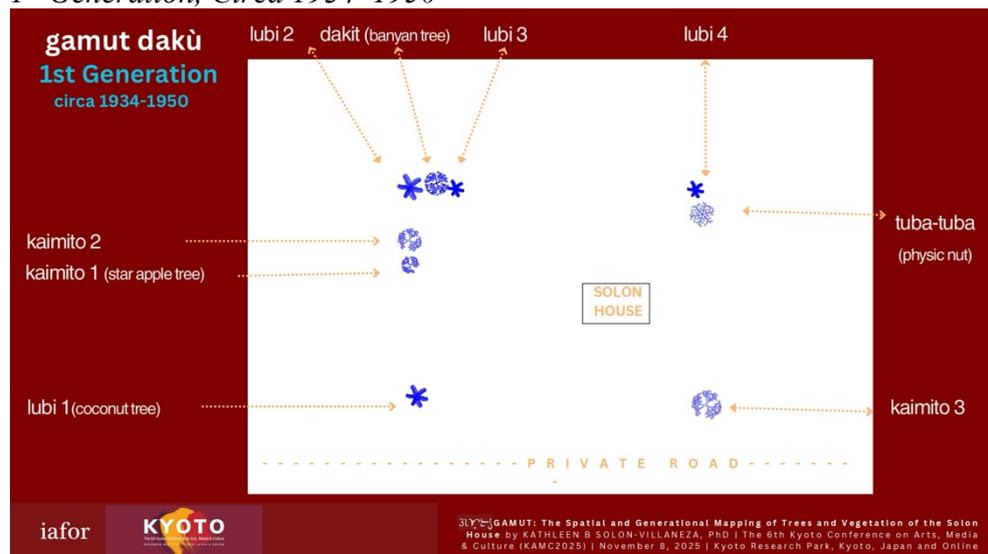
The Spatial and Generational Mapping of Trees and Vegetation

Curiosity maps the family's natural environment. Questions like: What trees and vegetation thrive across generations of the Solon House? Where are/were specifically located and grown? How are they utilized by the Solon House? What stories and memories do they keep?

In Figures 2 to 5, the layout of trees and vegetation, architecture, and placemaking show four generations.

Figure 2

1st Generation, Circa 1934–1950

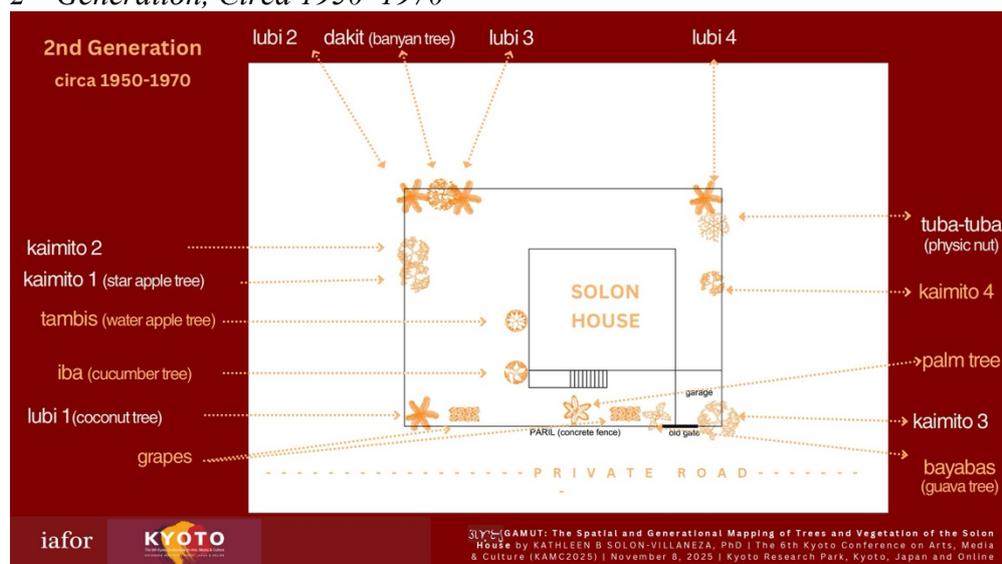


Note/Source. KAMC2025 presentation slide

Figure 2 shows the following young trees surround the Solon House: *clockwise* lubi 1, kaimito 1, kaimito 2, lubi 2, dakit, lubi 3, lubi 4, tuba-tuba, kaimito 3. Briefly, there are 4 lubi (coconut trees), 3 kaimito (star apple trees), 1 dakit (banyan tree), and 1 tuba-tuba (physic nut).

According to Lola Nena, the kaimito trees are dwelling places of agta (mythological tree-dwelling dark giant creatures), the dakit (banyan tree) is the sacred place of the spirits and ada (fairy), and the tuba-tuba (physic nut) is used as medicine.

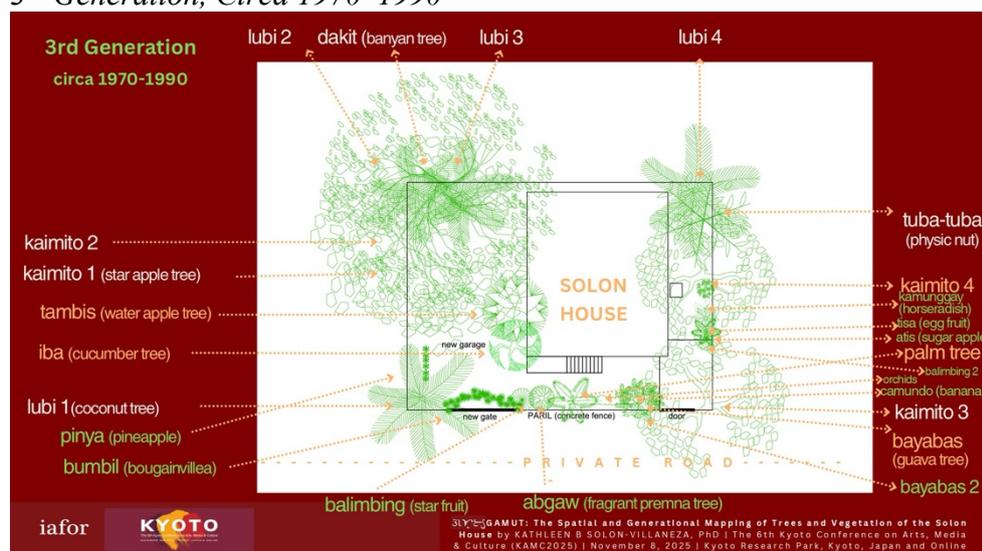
Figure 3
2nd Generation, Circa 1950–1970



Note/Source. KAMC2025 presentation slide

In the 2nd Generation, additional trees and vegetation, tambis and iba—these two trees would later hold childhood places of play, adventure, food, and even punishment. The guava tree is not only a source of tasty fruit, but also medicinal leaves. Grapes, the highlight of the second generation, indicate how cool the environment in the city was back then, nurturing the vine and fruits. Historically, Cebu City in the 1950s was booming with the grapes business, but saw a decline over time due to modernization. Dama de Noche (night-blooming jasmine) would also be a sight of katingaláhan (supernatural), including sigbin (kangaroo-like mythical creature) and encantada (fairy).

Figure 4
3rd Generation, Circa 1970–1990



Note/Source. KAMC2025 presentation slide

The 3rd generation reaped abundantly what was sown by the previous generations; trees and vegetation planted by my ancestors, my mother, uncle, and aunt.

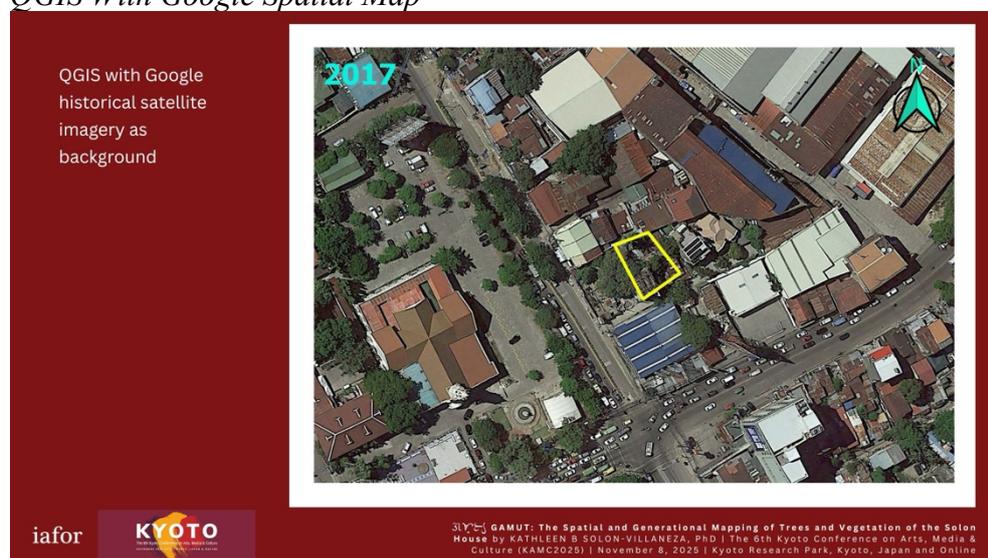
Figure 5
4th Generation, Circa 1990–2020



Note/Source. KAMC2025 presentation slide

The 4th generation saw change. A wider expanse of architecture, but lesser vegetation. The figure shows the natural environment stripped down to almost like the 1930s in terms of trees and vegetation, with the exception that the trees have grown and aged (yielding fruits).

Figure 6
QGIS With Google Spatial Map



Note/Source. KAMC2025 presentation slide

QGIS with Google Earth’s historical satellite data of 2017 clearly maps the vegetal climate of the Solon House in Figure 6.

Spatial mapping of trees and vegetation aids understanding of the recurrence of katingaláhan. Table 1 documents at least nine (9) participants who shared their lived experiences in the Cebuano language, given an English language equivalent, the supernatural entities, and vegetal themes.

Table 1
Lived Experiences With Katingaláhan and Vegetal Themes

Participant	Lived Experiences	English Equivalent	Katingaláhan	Vegetal Themes
<u>N1</u>	“bata na laki... sa una adto sa may tambisan mag barog”	(young boy... long ago he usually stood there by the tambis)	entity – young boy	tambis
<u>N2</u>	“naay nisitsit niya, murag nanlimbawt iyang balhibo, nya ang sitsit naa sa gawas. Murag ang duda niya agta daw to kay naa pa baya tong kaimito”	(there was something that whistled and hissed at him, kind of giving him goosebumps, and it came from outside. Like he was suspicious it’s an agta because there was still the kaimito)	entity – audio	kaimito 4
<u>N4</u>	“gipakita ko ug taw gasulob og black jacket sa parkingan sa ila ka Tiyo sa una”	(i was shown a person wearing a black jacket at the parking lot near uncle’s before)	entity – person	(garage) tambis
<u>N5</u>	“Tulo akong na experience: sitsit, gibira akong tiil, tuktok ug kawras sa wall.”	(i had three experiences: whistle and hissed, pulling of my feet, knock and wall-scratching)	entities – audio, tactile	(bedroom) tambis
<u>N6</u>	“Kita ko mama sa una. Pag naog nako sa ubos, kita kos iya permi sulubon nga daster... padung siya sa hayhayan sa ubos abi nako si Tiya Lucy mao to ako gi-adto nya pag adto nako wamay tao... mao dagandagan ko hehehe...”	(I saw mama before. When I went down the stairs, I saw the daster she usually wore... she was going to the laundry area downstairs I thought it was Tiya Lucy that’s why I went there only to find out no one was there... so I ran hehehe...)	ghost – mother	(laundry) palm tree, bayabas, kaimito 3
<u>N7</u>	“ug kato pud natolog ko gibira kos kisami..nya ako gibunlot pagbunlot nako lain kaayo nawong”	(and that one time I slept something pulled my body to the ceiling... I pulled back and when I did I saw a hideous face)	entity – tactile, visual	(bedroom) kaimito 3, kaimito 4, balimbing, atis, kamunggay
<u>N8</u>	“iya gyud gi describe in details ang sanina sa nakita niya nga ni agi sa bintana, nag stripes daw plus uban details nga nakita niya...”	(she really described in details the shirt she saw passing by the window, wearing stripes plus other details that she saw)	entity – visual	(sala) kaimito 1, kaimito 2, lubi, dakit

subdivision surveys are an exercise of legalities, hierarchical, and descendancy politics. At times, it invites strain in the family as well as in the trees and vegetation. When boundaries change, biological lives are at risk during estate fencing and house (re)construction. Old stories will turn into memories and may undergo wear and tear over time. Oral tradition and narratives recorded here are attempts to preserve generational memories and document ancestral knowledge. Every square foot of an estate means money. But more than that, it is history, family, and lived memory. In this paper, the spatial and generational mapping of trees and vegetation not only gives value to the spaces of the Solon House, but also honors the memories held by each gamut.

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Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

The author declares that Grammarly, an AI-assisted writing software, was used in proofreading and refining the language used in the manuscript. The usage was limited to correcting grammatical and spelling errors and rephrasing statements for accuracy and clarity. The author further declares that, apart from Grammarly, no other AI or AI-assisted technologies have been used to generate content in writing the manuscript. The ideas, design, procedures, findings, analyses, and discussion are originally written and derived from careful and systematic conduct of the research.

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