Part I. Initial Human Behavior Observations at the Durfee Conservatory Tropical House

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Professor Pader

Sustainable Community Development 205

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I. Photographs of the Durfee Conservatory



Photo 1: Exterior view of Durfee Conservatory from Stockbridge Road



Photo 2: Exterior view of the Durfee Conservatory Tropical House



Photos 3 and 4 (Left to Right)
Photo 3: A wood Bench dedicated to conservatory donors Photo 4: A stone bench enclave



Photo 5: A fountain feeds into the koi pond **Photo 6:** A warns dwellers not to use their cell phones

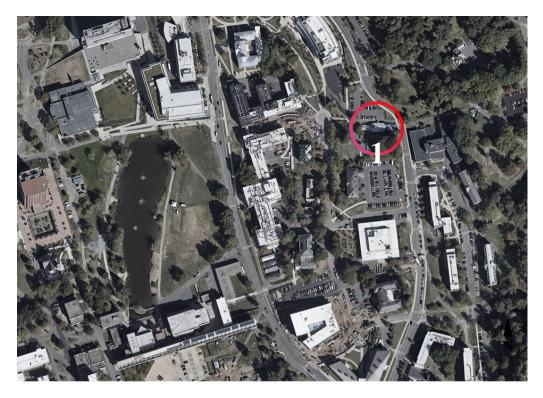


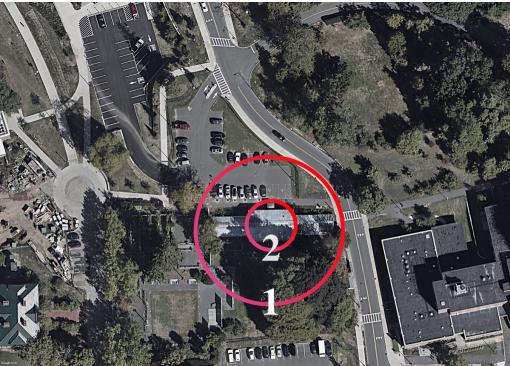
Photo 7: The pedestrian bridge crossing over the koi pond



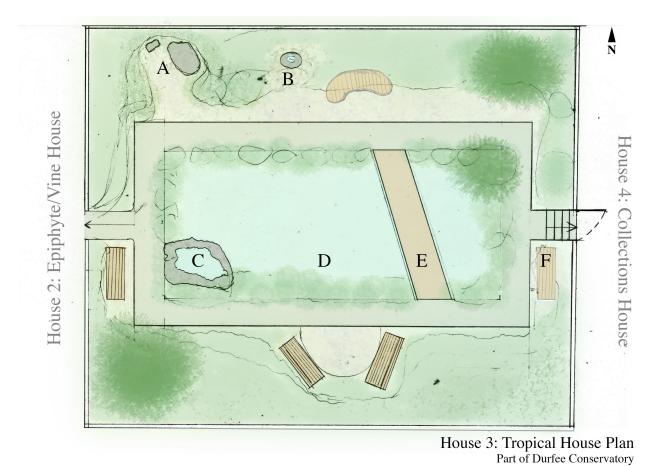
Photo 8: A sinuous wooden bench with a nearby information sign. Bound, reed mats (six feet tall) line the walls. Possibly, an attempt to boost privacy

II. Maps of Location





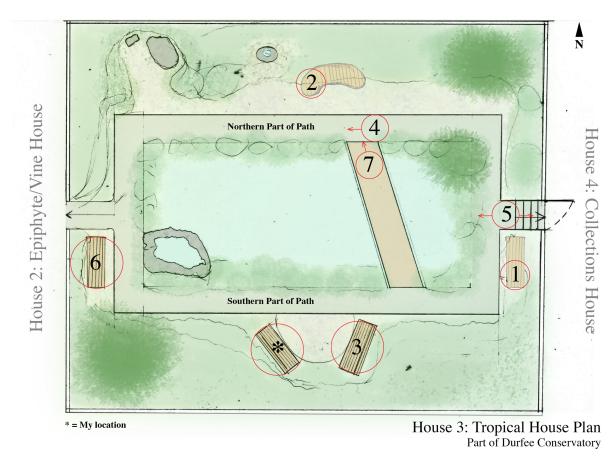
Maps 1 and 2 (Top and Bottom). Macro Context. Durfee Conservatory's relation to the UMass Amherst campus (aerial shot). The "1 outer ring" indicates the entire Durfee Conservatory plot of land. The "2 inner ring" indicates the location of the Tropical House.



Map 3. Micro Context. House 3: Tropical House Plan

- A. The Japanese inspired enclave, with bamboo surrounding a stone bench. (See **Photo 4**)
- B. A human made ceremonial water holder (made of stone). (See **Photo 8**)
- C. A human made fountain (See **Photo 5**)
- D. A human made koi pond (See **Photo 5**)
- E. A narrow pedestrian bridge that spans the pond (See **Photo 7**)
- F. A wooden bench commemorating the donors who contributed money

III. Field Observation Map for 'House 3: Tropical House'



Map 4. A circle with an arrow indicates people moving in a direction. A circle indicates stationary people. A larger ring indicates a larger territory claimed.

BEHAVIOR MAPPING - DATA COLLECTION FORM

LOCATION: Durfee Conservatory - House 3: Tropical House OBSERVER: Maxwell Zaleski

TEMPERATURE: 40°F (Outside), 70°F (In Tropical House)

TIME: 10:00 AM (Start time) to 10:35 AM (End time)

DATE: April 2nd, 2019

Group #	Arrival Time/Rearrival	Departure Time/ Second Departure	Gender		Age						ıty	ian	Writing in Notebook	Reading Book	Food	g at greenery	upright	reclined	off jacket on arrival	Passing through	d shades in Tropical House	one usage - taking photos		alking	Talking 'Loudly'	Together	alone	thru House 2: Epiphyte/Vine House	thru House 4: Collections House	Sel
			М	F	9-0	7-18	18-34	35-50	51-65	92+	Ethnicity	Caucasian	Writing	Readin	Eating	Looking	Sitting	Sitting	Took of	Passinę	Opened	Cell phone	Silent	Quiet talking	Talking	Sitting	Sitting	Entered thru	Entered thru	Activities
Group 1	10:04 AM			1			1					1	1				1		1				1				1		1	
Group 2	10:06 AM			1			1					1		1			1		1				1				1	1		ĺ
Group 3	10:12 AM			✓			1					/			1	1		✓	/				1				1		1	
Group 4	10:17 AM	10:19 AM	/	1			1					✓							/	1			1						1	ĺ
Group 5	10:20 AM / 10:35 AM	10:20 AM / 10:35 AM	✓					1				1									11		1						1	
Group 6	10:29 AM		/	1			/					/			1		/								/	1		/		ĺ
Group 7	10:31 AM	10:35 AM	1	1			1	1				1								1		1		1					1	ĺ

IV. Field Notes

The first observations showed that many of the individuals who go to the Durfee Conservatory Tropical House are trying to relax and have 'alone time'. Possibly demonstrating that the individuals value privacy and psychic (mental) health. The built environment and cultivated greenery inside, minimize sightlines into the greenhouse and minimize sightlines between benches—giving individuals solitude. While the observed individuals were silent, the groups of people (the largest groups consisted of two people) who entered the space were at least interacting (talking) with each other as they moved through the space. That being said, the groups quickly quieted down as they journeyed through the Tropical House. This might be because they were picking up on verbal cues (or lack thereof). The upright posture of many users and academic-oriented activities (reading and writing) could get labeled as a nonverbal cue. These actions indicate the 'seriousness' of the occupants. Supporting this presumption is the nonverbal signage that announces that cell phones are prohibited in the Tropical House. With this in mind, those entering the space might adjust their behavior accordingly. This could explain why there was no one laughing in the space. These interaction observations illuminated how quickly people try to readapt to environmental cues, cultural norms, and values to 'prove' that they are not outsiders. Similarly, spatial usage appeared to be based-off norms concerning locomotion.

The "Northern Path" was primarily used by groups passing through the Tropical House and the "Southern Path" was primarily used by individuals stationed allow it (sitting at benches) (See **Map 4**). Two explanations come to mind. The first is that locomotion etiquette (in which people walk on the right side) could lead people entering from the "Collections House" to use the "Northern Path". The second explanation is sensory and psychic. The warm lighting, floral

scents, and white noise (from the babbling fountain) along the "Southern Path," might make it the more desirable stretch for sitting. If this is the case, pedestrians likely heed the verbal and nonverbal social cues (indicating a need for privacy) and stay clear of the patrons (See **Photo 6**). The pedestrian bridge was only used by Group 7 for less than a minute (See **Maps 3 and 4**). One could speculate that the avoidance of the pedestrian bridge has to do with its placement and scale (See **Photo 7**). The bridge's width is less than three feet, so it is not meeting contemporary building code standards and more importantly, may look unsuitable for pedestrian travel. The odd scale of the bridge coupled with the vegetation growing on it may make it look like it is part of the display. The aforementioned observations reveal that nonverbal and verbal cues might be affecting the space usage. These cues also are excluding and including certain user groups.

Because the recording of observations began at 10:00 AM it was presumed that UMass Amherst facility workers would be using the space if they were on break. This was not the case. This could be attributed to the fact that (1) the only users were Caucasian (a nonverbal cue that this ethnic group has claimed the space) and (2) that the opening time is after facility workers begin work. This second point is especially worrisome and needs to be studied further, as it might be a blatant example of exclusion. The opening time of 10:00 AM and closing time of 4:00 PM means that once the facility staff finally get out of work (or a break) they cannot enter the building. Another lofty presumption was that a wheelchair user would be conveniently in the Tropical House. The built environment in the Tropical House makes wheelchair access challenging. The stairs leading down from the "Collections House" are steep and there is no ramp to place on the stairs, so that particular entrance is inaccessible for wheelchair users (and is clearly an example of exclusion) (See Map 3). This means that wheelchair users are forced to use the 'back door' entrance. On top of having lackluster wheelchair accessible entryways,

gardening hoses lay in disarray on the paths impeding wheelchair users from traversing them (a clear example of incongruence). Observations of the Tropical House were not limited to occurrences created by nonverbal and verbal cues.

One can conjecture that frequent users and past users of the Tropical House valued built environments with strong defensive, psychic, aesthetic characteristics, as shown by the props scattered around the space. The reed mats that line the walls of the Tropical House cover the grubby walls, while also offering privacy. Likewise, the benches offer users defensible space, as the backrests close to the wall. The greenery provides users with psychological defense. Offering them a restorative environment where they can 'free themselves' of technology and mental fatigue. The scents of flowers and white noise created by the fountain improve the milieu (and maybe even the psyche of occupants). In this regard the Tropical House is fulfilling its mission.

The Durfee Conservatory opened in "1867" and this is evident in its design.¹ The Tropical House follows the Pleasure Grounds style.² In the 1870s it would have offered an escape from the urban, city environment, by offering users with an exotic atmosphere (that was hot year-round and housed rare tropical plants) to explore. It has been 152 years and the Tropical House is still providing urban, college students with an opportunity to get away from the fast-moving metropolitan world.

¹ History. (n.d.). Retrieved April 3, 2019, from The Durfee Conservatory website: http://durfeeconservatory.umass.edu/history ² Cranz, G. (n.d.). *Changing Roles of Urban Parks: From Pleasure Garden to Open Space* [PDF]. Retrieved from https://moodle.umass.edu/pluginfile.php/2554692/mod_resource/content/1/Cranz%20ChangingRolesUrbanParks.pdf

References

 $Cranz, G. \, (n.d.). \, \textit{Changing Roles of Urban Parks: From Pleasure Garden to Open Space} \, \, [PDF].$

Retrieved from https://moodle.umass.edu/pluginfile.php

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