

Gathering CSUMB Community Input: Green Roof Visual Preference Survey Results

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What is a Green Roof?

- A green roof is a roof that has live vegetation growing on top of it and promotes human interaction and connection with nature
- We are proposing a green roof be installed on campus to push for more unique sustainability efforts, help with energy efficiency, foster student connection to campus, and provide hands-on experiences/education.

Purpose

- CSUMB is planning to construct a new building for the College of Science
- We conducted this survey to get CSUMB community perspective for a proposed green roof on the new building

Methods

- The survey was generated by ENSTU 497 (Independent Study) then piloted, reviewed, and revised by ENSTU 350 (Research Methods for Environmental Studies) resulting in the finalized survey
- There were 140 responses at time of analysis, as follows:
 - 89% students, 6% staff, 5% faculty
 - 19 majors with ENSTU, MSCI, ESTP, and PSYCH being the 5 most frequent respondents

Questions

- The visual preference survey asked questions such as:
 - How important is access to nature to you?
 - To what extent would you like to interact with a green roof or living wall?
 - What kinds of interactions would you want from the space?
 - What kind of plants would you like in the space?
- We also provided sets of images of green roofs and living walls with varying aesthetics and asked them which they preferred and why

Green Roof Input

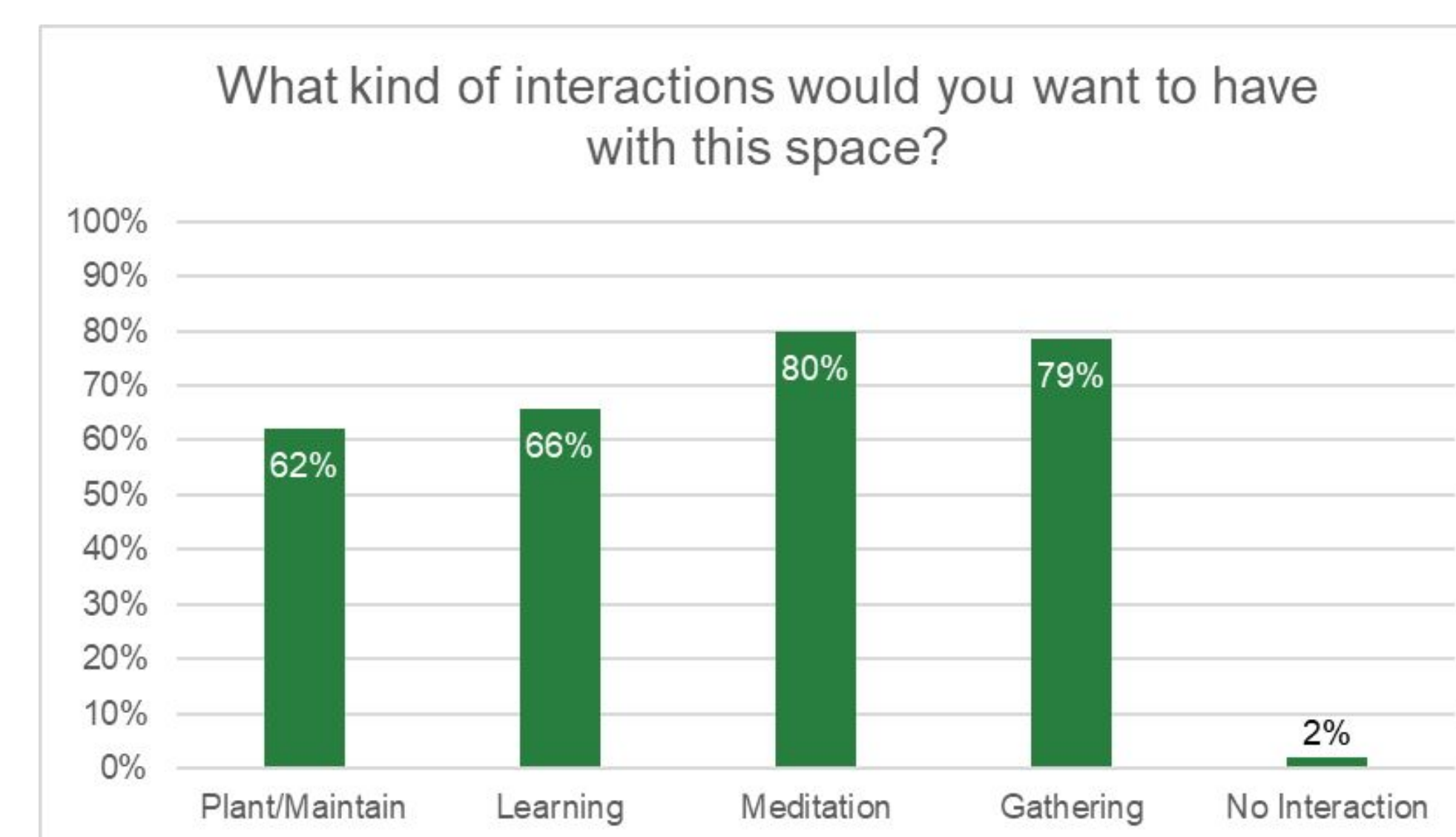


Figure 1: Green Roof Interactions (N=140). Responses to "What kind of interactions would you want to have with this space? (Check all that apply)"

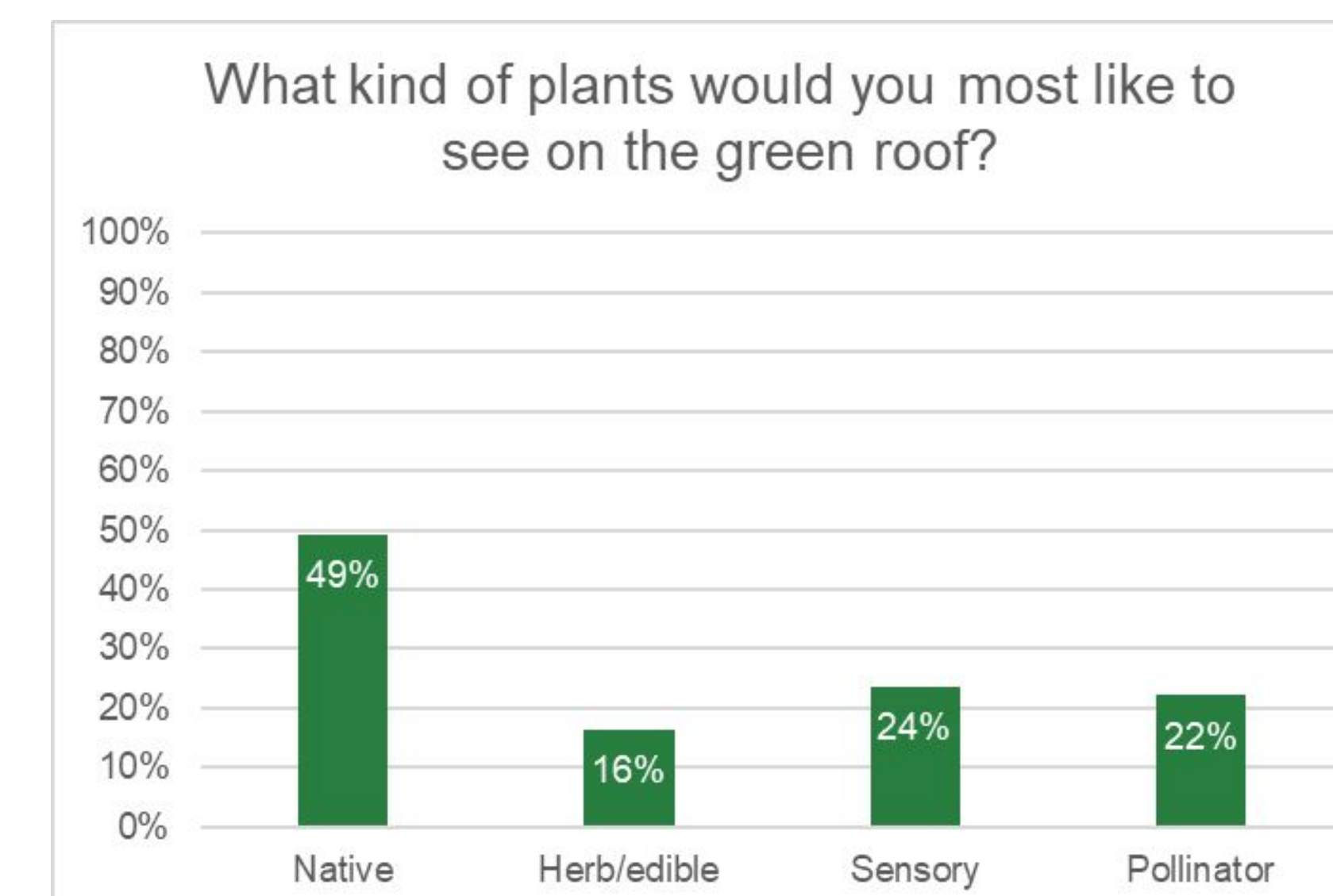


Figure 2: Plant Preferences (N=140). Responses to "What kinds of plants would you most like to see on a green roof/living wall?"

Findings

- 61% of participants preferred a green roof over a living wall
- On a given scale of 1-7, the average importance of access to nature was 6.5, with 71% of participants rating it a 7
- On a given scale of 1-7, the average amount of green roof interaction wanted was 4.9
- The most desired interactions for the space were as a place for community gathering and eco-therapy/mediation (Figure 1)
- The most desired plant type was native plants (Figure 2)
- The most mentioned positive features from visual survey images were color, diversity, greenery, pathways, and interactions



ICB Systems <https://www.icbprojects.co.uk/>

Most Preferred Image



Figure 3: Among the images shown in the visual preference survey, this image was viewed the most positively with specific callouts towards walkways, colors, and greenery.

Recommendations

- We recommend that CSUMB implement a green roof on the new building with the following aspects:
 - Accessibility and interaction
 - Native plants with a variety of colors
 - Shaded areas
 - Open space for students to sit
 - Pathways for students to utilize and move through the space