Relocalize Our Food
Supporting food sovereignty in areas of high urban water stress

“The professor exemplifies and surpasses all criteria for excellence in architecture education... Her leadership is truly remarkable as it effectively bridges the realms of classroom, studio, and community work while adhering to the highest standards of professional practice.”

Garden Executive Director and County Sustainability Manager
Relocalize Our Food is a public-private-academic partnership

**Public Government Partners**
- Pima County Regional Flood Control (hydrological modeling)
- City of Tucson and Tucson Water
- Pima County Community and Workforce Development

**Private Practice Partners**
- GLHN Architects and Engineers

**Food Cultivator and Educator Partners**
- Community Food Bank of Southern Arizona
- Las Artes Art and Education Program
- Merchants Garden
- Mission Garden (Pima County)

**Academic Partners**
- Arizona State University (geo-spatial analyses)
- University of Arizona faculty and B.Arch students
Let's Design a Food Future

**Los Nopales**
Los Nopales is a community garden addressing social equity, flooding, food production + distribution issues through the cultivation of local desert crops, and by providing a space for community + agricultural education in Barrio Nopal.

**Las Artes Youth Art Program**
Las Artes Youth Art Program looks to address food injustice in South Tucson by providing an outlet for its students and the greater community through a teaching kitchen and demonstration garden.

**Mission Garden**
Mission Garden envisions historical educational opportunities to locals and visitors by expanding its services through spaces designed for food vendors, demonstration gardens and water remediation towards Anza Trail and Santa Cruz River.

**Merchants Garden**
Merchants Garden is a passion project to address the disparity in fresh food access across their locale while promoting food sovereignty, food transparency, and education about their unique method of urban food production, aquaponics.

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**Project Typologies**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Adjacent</td>
<td>Urban Alley</td>
<td>Community Garden</td>
<td>Indoor Agriculture</td>
</tr>
</tbody>
</table>
Project: Mission Garden
Typology: River Adjacent
Landowner: Pima County

Project: Las Artes School
Typology: Urban Alley
Landowner: Pima County

Project: Los Nopales
Typology: Community Garden
Landowner: Pima County

Project: Merchant’s Garden
Typology: Indoor Agriculture
Landowner: City of Tucson

4. Study area and data collection

Distribution among them. Furthermore, the community collaboration specification in the model in- site requires a proximity assessment of the relevant infrastructures, how alternative water resources can be used for food production at a gradient.

Fig. 2. Project: Mission Garden
Typology: River Adjacent
Landowner: Pima County

Fig. 3. Project: Los Nopales
Typology: Community Garden
Landowner: Pima County

Fig. 4. Project: Las Artes School
Typology: Urban Alley
Landowner: Pima County

Fig. 5. Project: Merchant's Garden
Typology: Indoor Agriculture
Landowner: City of Tucson

Local Sustainable Source 1: Reclaimed Water
Tucson imports 89% of its water supply from an over-subscribed Colorado River.

Local Sustainable Source 2: Passive Water Harvesting

Local Sustainable Source 3: Active Water Harvesting

Vegetable production (million cups)

Monthly rainfall distribution in the study area (North American monsoon season runs on average from mid-July to mid-October).
“Growing up in the Tucson community with a background in agriculture, this studio was a turning point in my education to steer me into focusing on how architecture can bridge the gap between urbanization and food systems, especially in my city.”

5th year B.Arch student
Las Artes School
Urban Alley
Pima County

Site Context
(1 mi radius)

Project Objectives
- Equity and Empathy
- Community Interaction
- Water Self-Sufficiency
- Food Literacy
- Food Agency

“5th year B.Arch student

“This studio was the most influential and impactful during my time in architecture school”

Community Garden

Demographics
- Hispanic
- White
- Native American/Multi-Racial
- Black
- Asian

Local food sources
- Fresh food sources
- Processed/Prepared food sources
Proposed Water System
Project: Los Nopales
Typology: Community Garden
Landowner: Pima County

Project Objectives
Walkable Network
Gardening Plots
Sound Mitigation
Hands-on Education
Rainwater Harvesting

“We were asked to imagine solutions for addressing food insecurity, food deserts, and agriculture literacy in the Tucson community and implement our ideas in a cohesive architectural project that addressed our specific community partner.”

5th year B.Arch student

<table>
<thead>
<tr>
<th>Vegetable</th>
<th>Quantity per harvest</th>
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<tbody>
<tr>
<td>bell peppers</td>
<td>289</td>
</tr>
<tr>
<td>cilantro</td>
<td>510</td>
</tr>
<tr>
<td>corn</td>
<td>255</td>
</tr>
<tr>
<td>jalapeño</td>
<td>221</td>
</tr>
<tr>
<td>spearment</td>
<td>272</td>
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<tr>
<td>squash</td>
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<tr>
<td>tomatillo</td>
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<td>tomato</td>
<td>561</td>
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<td>prickly pear</td>
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<td>cholla</td>
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<td>jojoba</td>
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Presentation Pavilion
"The Food Systems Studio taught us what every architect's goal should be when they approach a project—to do good for the community. In the end, each one of our projects carefully thought about how to conserve water (a precious resource in the Tucson desert), bridge the gap between urbanization and agriculture, and design projects with not only the community partner's budget in mind but the Greater community as well."

5th year B.Arch student
"The research-design conducted by the professor and students possessed a tangible and practical application in addressing the pressing challenges faced by local government entities and organizations tasked with navigating the multifaceted and compounding threats of poverty, food scarcity, and climate change in Tucson. Furthermore, the insights garnered from this research are highly transferable and applicable to other urban environments situated within arid landscapes."

Garden Executive Director and County Sustainability Manager
Community Engagement

"Some of our most impactful experiences in the design process were sitting down with community members outside the local library and hearing their stories, listening to how they envisioned the greater neighborhood, and brainstorming with them about how we could bridge the gap between food and the community in an urban area."

5th year B.Arch student
DEAR VISITOR,

As Architecture students of the University of Arizona, we are doing a project that’s based here in Mission Garden and we would love to get your feedback that could potentially be beneficial here. If you have the time today or any other day, please fill out our survey by scanning this QR code with your mobile device. It should only take a few minutes of your time. Thank you so much and we really appreciate it!

Sincerely,
Rico + Bo (UA Class of 2022)
New research finds rainwater harvesting could be solution to Tucson food deserts

By: Jamie Warren

Posted at 5:00 AM, Feb 09, 2021 and last updated 8:07 AM, Feb 09, 2021

Data shows nearly 94,000 Tucson residents live in a food desert; those are low-income neighborhoods where the closest grocery store is at least a mile away.

“Through a genuinely innovative course structure, students and practitioners were able to collaborate, effectively bridging architecture and urban agriculture in real-world contexts to achieve better social and ecological outcomes... The infectious enthusiasm displayed by the students was remarkable, and the professor’s leadership..., adept at bridging the gap between academic learning and the practical requirements of project partners within the realm of desert food systems, was truly exceptional.”

Garden Executive Director and County Sustainability Manager