



NMASLA Oct. 2013
Innovative Stormwater
Infrastructure

Urban Acequias and the Desert Oasis

An Exploration of Integrated Water Infrastructure in
Mendoza, Argentina.

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An aerial photograph of a desert landscape, possibly a salt flat or a similar flat, with a grid of circular markers overlaid on the ground. The markers are arranged in a regular pattern, suggesting a survey or mapping activity. The ground is light-colored and appears to be composed of sand or salt. The sky is clear and blue.

DANGER

STAY OUT!
STAY ALIVE!

What more could it be?



What more could it be?



What more could it be?

A photograph of a tree trunk on a sidewalk. The sidewalk is made of concrete slabs. There is graffiti on the concrete around the base of the tree. A cigarette butt is lying on the sidewalk near the tree. The background shows a street with some litter and a curb.

What more could it be?

Integrated Infrastructure Model

Green Infrastructure.

Healthy Street Trees.

Functional and aesthetically pleasing.

Creates a more hospitable urban environment.

What would it look like?

Looking for Answers in Arid Regions



Albuquerque, New Mexico

0'

Looking for Answers in Arid Regions



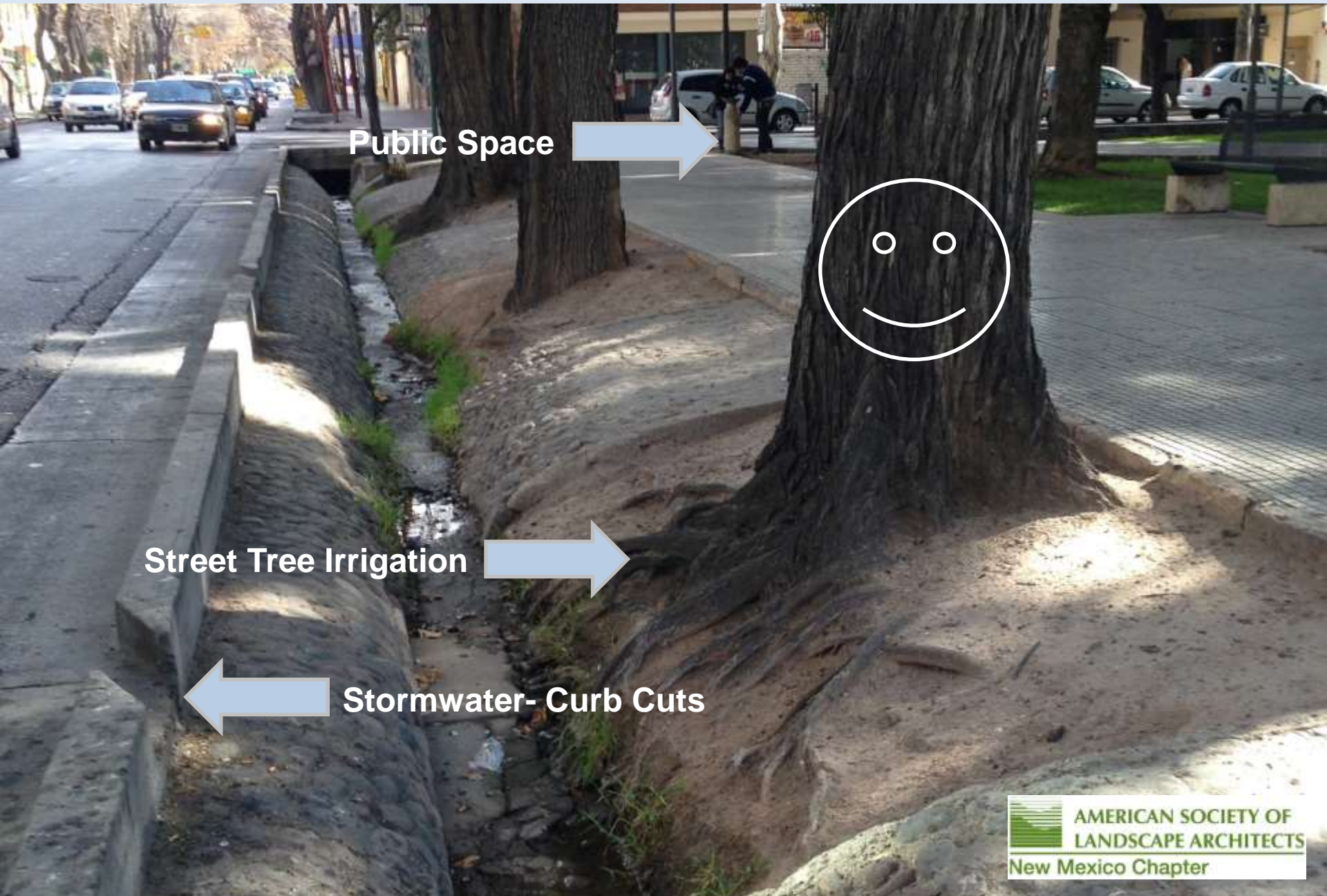
Mendoza, Argentina

<http://www.ecofamilias.com.ar/ecoblog/3348/>



Urban Acequias

Looking for Answers in Arid Regions



Public Space

Street Tree Irrigation

Stormwater- Curb Cuts



Regional Parallels



Albuquerque, New Mexico

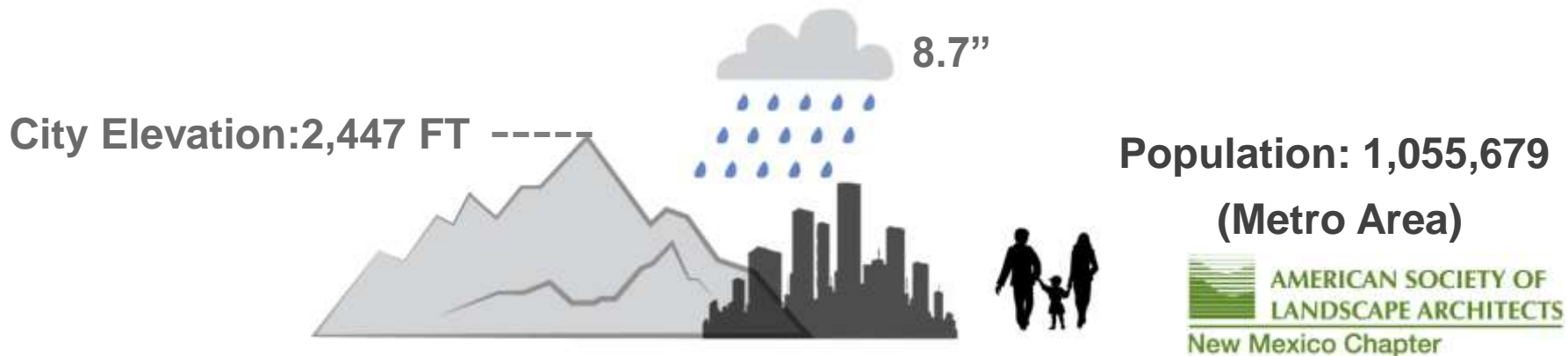
Mendoza, Argentina

Regional Parallels

Albuquerque, New Mexico



Mendoza, Argentina



Regional Parallels

Feature	Albuquerque, New Mexico	Mendoza, Argentina
Latitude	35.0844°N	32.8905°S
Area	469.6 km ²	54 km ²
Population	901, 700 (Metro Area)	1, 055, 679 (Metro Area)
Annual Rainfall	8" (203 mm)	8.7" (223 mm)
Elevation	5,577 ft (1,700 m)	2,447 ft (746 m)
Climate	Arid	Arid
Sun	3,419 hours	2,871 hours

Regional Parallels

Mendoza, Argentina



Albuquerque, New Mexico



Regional Parallels



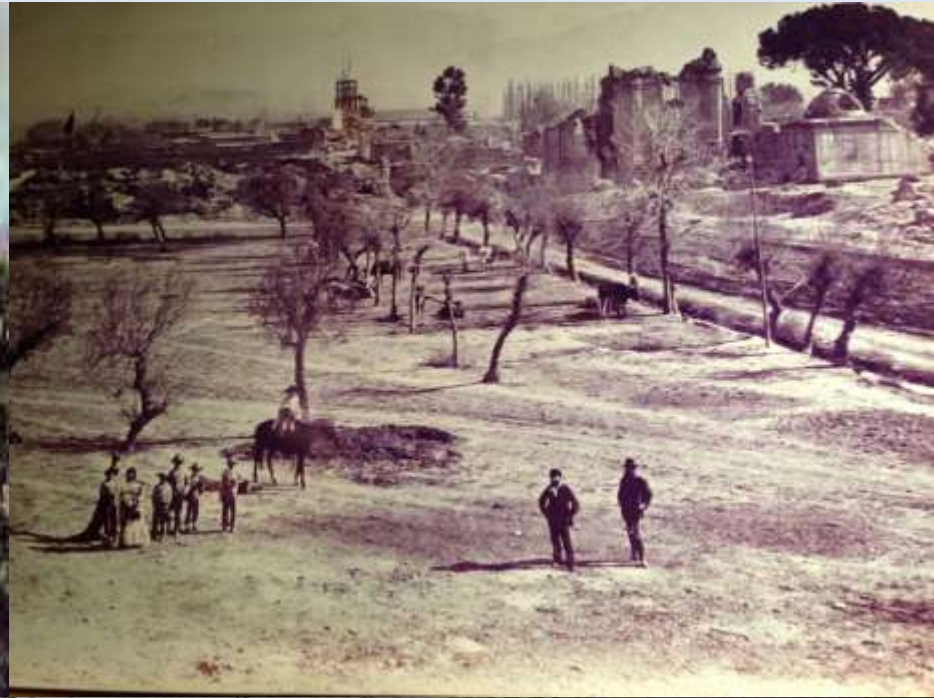
The Oasis



<http://forum.skyscraperpage.com/showthread.php?p=5876981>

The Oasis- Beginnings

Mendoza, Argentina



The Oasis- City Identity



The Oasis- City Identity



The Oasis- Beginnings



Acequia System- Canal



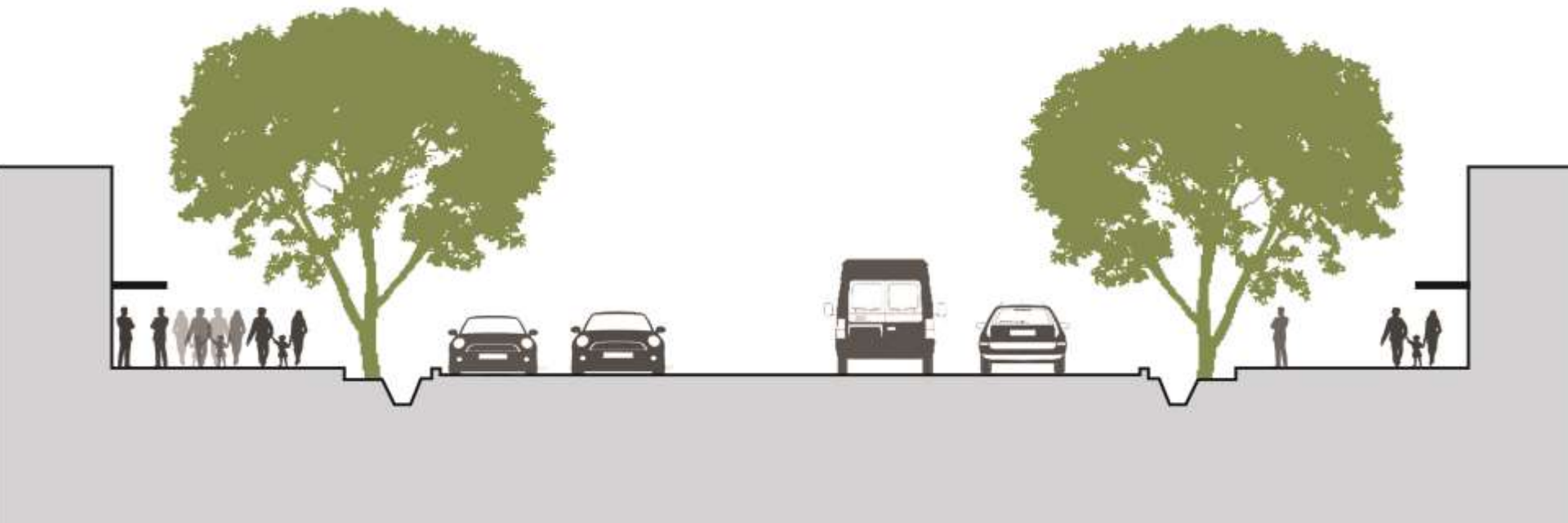
Acequia System- Canal



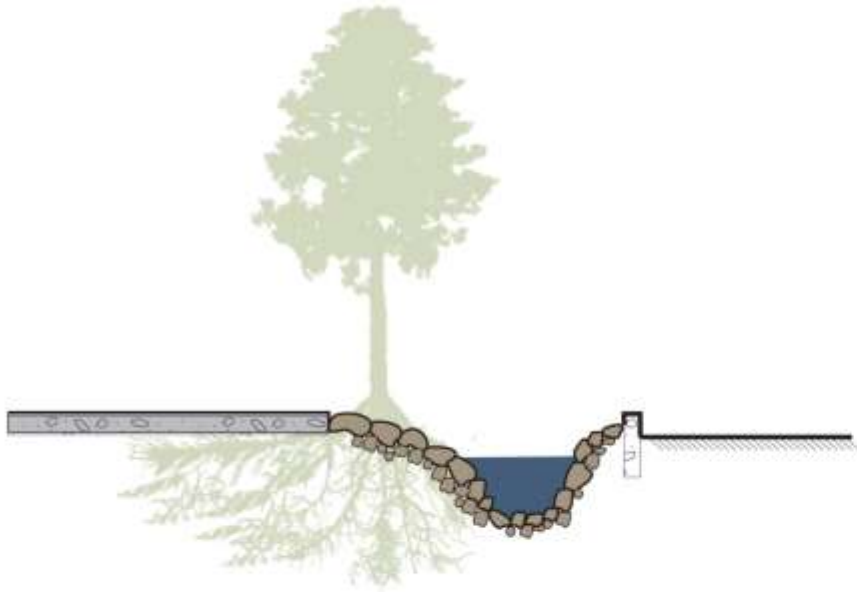
Acequia System- Madre



Acequia System- Typical Street Profile



Typical Profiles-Traditional



Typical Profiles-Traditional



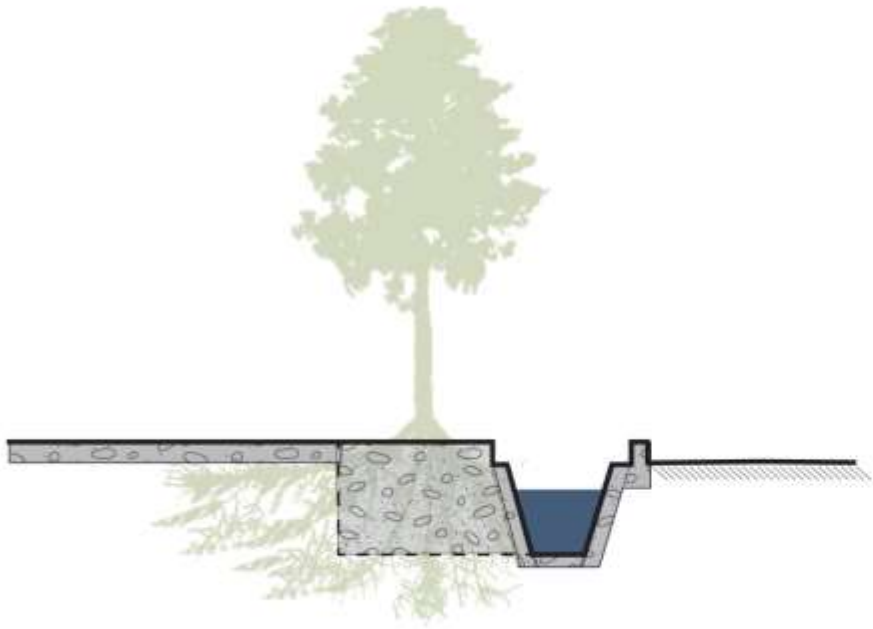
Typical Profiles-Traditional



Typical Profiles-Traditional



Typical Profiles- Contemporary



Typical Profiles- Contemporary



Typical Profiles- Contemporary



Typical Profiles- Contemporary



Urban Acequias – Public Space



Urban Acequias – Public Space



Urban Acequias – Public Space



<http://www.losandes.com.ar/notas/2006/3/22/sociedad-188127.asp>

Urban Acequias – Public Space



Urban Acequias- Public Space



Sustainability Issues

What is the value?



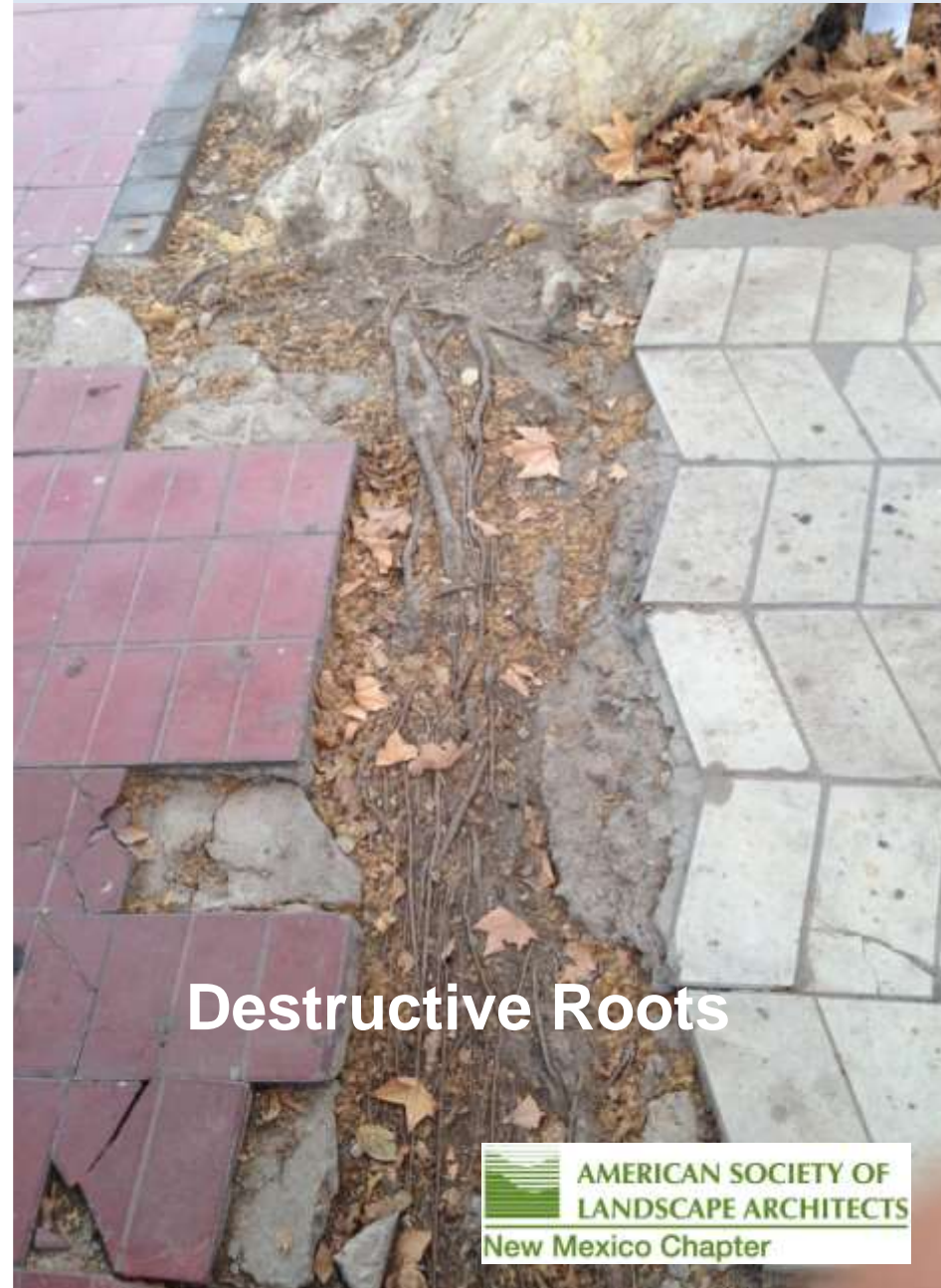
Sustainability Issues - Identity



Sustainability Issues - Maintenance



Resilient Street Trees



Destructive Roots

Sustainability Issues



Sustainability Issues – Water Use



Urban Conditions

Today's Urban Environment Issues

- Heat Island Effect
- Lack of Nature
- Minimal Space
- Subjugated to the built environment

Is it a sustainable system?

Use this page for your slides

- IDENTITY AND INTANGIBLES VERSUS EFFICIENCY
- KEY QUESTIONS FOR THE FUTURE
- WATER ALLOCATION

“Be the change you wish to see in the world”

- Mahatma Gandhi



Thank You For Listening

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- My Family, Mentors, and Teachers

