

# Aztec future mobility landscapes

*Believing in NM*  
*Investing in the future of all new mexicans*



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Albuquerque

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# Introduction

## Aztec and the future of all New Mexicans

*Framing:* Aztec's mobility futures lessons for investing in the future of all New Mexicans

**What are the infrastructures we need to invest in the future?**

As I will try to illustrate these infrastructures are not only physical but iterative process for managing the transition to an alternative mobility future

**How have we been thinking about this transition in Aztec?**



# Project: hwy 516 expansion

Urban Development Futures

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*Point of departure (2 actors)*

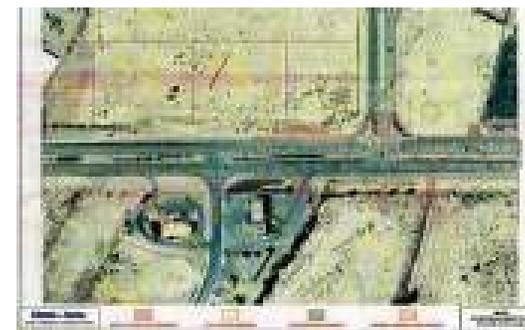
**The highway project:** expand/add lanes in response to projected future demand (projection of population and economic growth)

For the *Predict and Provide Approach* the future is a projection of past trend  
The future is closed

**The community:** worries about the potential future impacts of hwy expansion on their city

For the community the future is a bit more open

**IMPACTS:** THE PPA does not allow to deal with impacts at the beginning of process. Impacts are accidents you deal with after the crash



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# design: decision making process

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## Design a decision making process that:

Allows us to think about impacts in the beginning of the process

Allows us to use **impacts as solution-design generators**

## But impacts about what?

The PPA deals with:

- impacts of alternatives on fast through vehicular traffic
- “social” impacts of AMPs on retail along the hwy

**IMPACTS:** that are felt but not easily articulated

**How:** go for a walk/bike ride and feel how the hwy impacts you right now

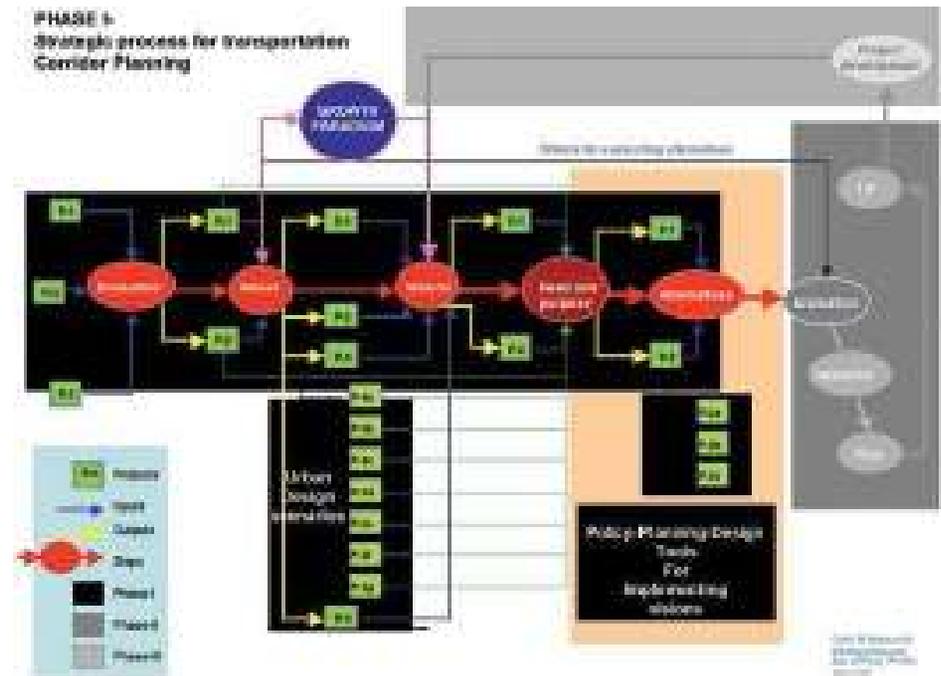


Figure 1

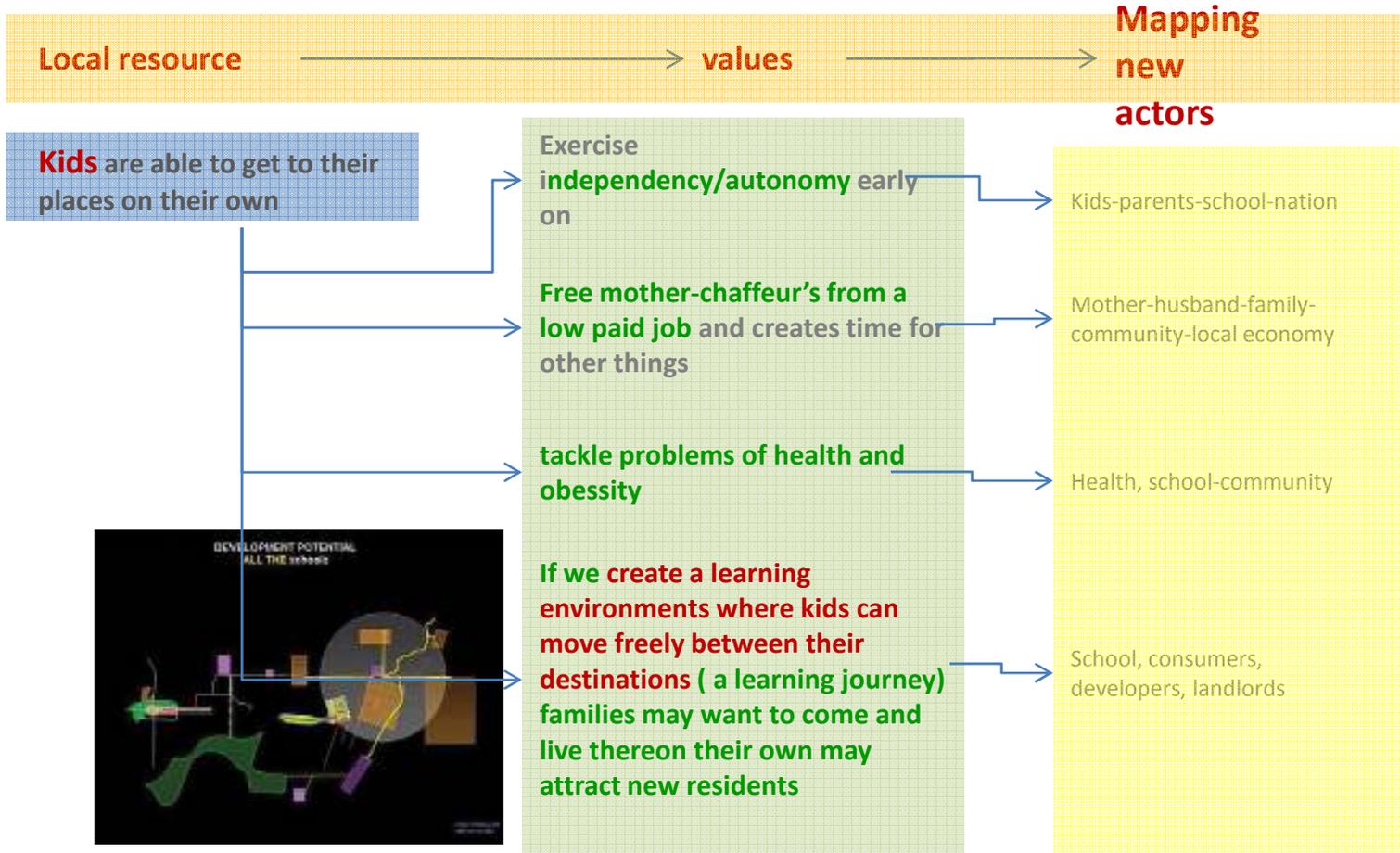
We took the traditional decision making LINEAR path and added few DEVIATIONS



# transformations: from resource

To value and actors

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As we weave this local resource into a strategic value we also start to map new actors that were not there before and that can help both, to build a different hwy or to stop us from building it. Both actors are important

# impacts: inventory

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The hwy splits/bisects the space of the community in several fragments

## **THE DEER**

**IF you keep/walking-biking you will soon notice the deer that want to cross to the other side of the hwy. They cross under the bridge but as they don't like it they cross the hwy killing themselves and causing accidents**

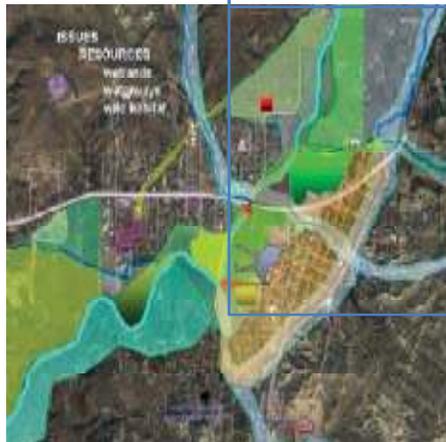
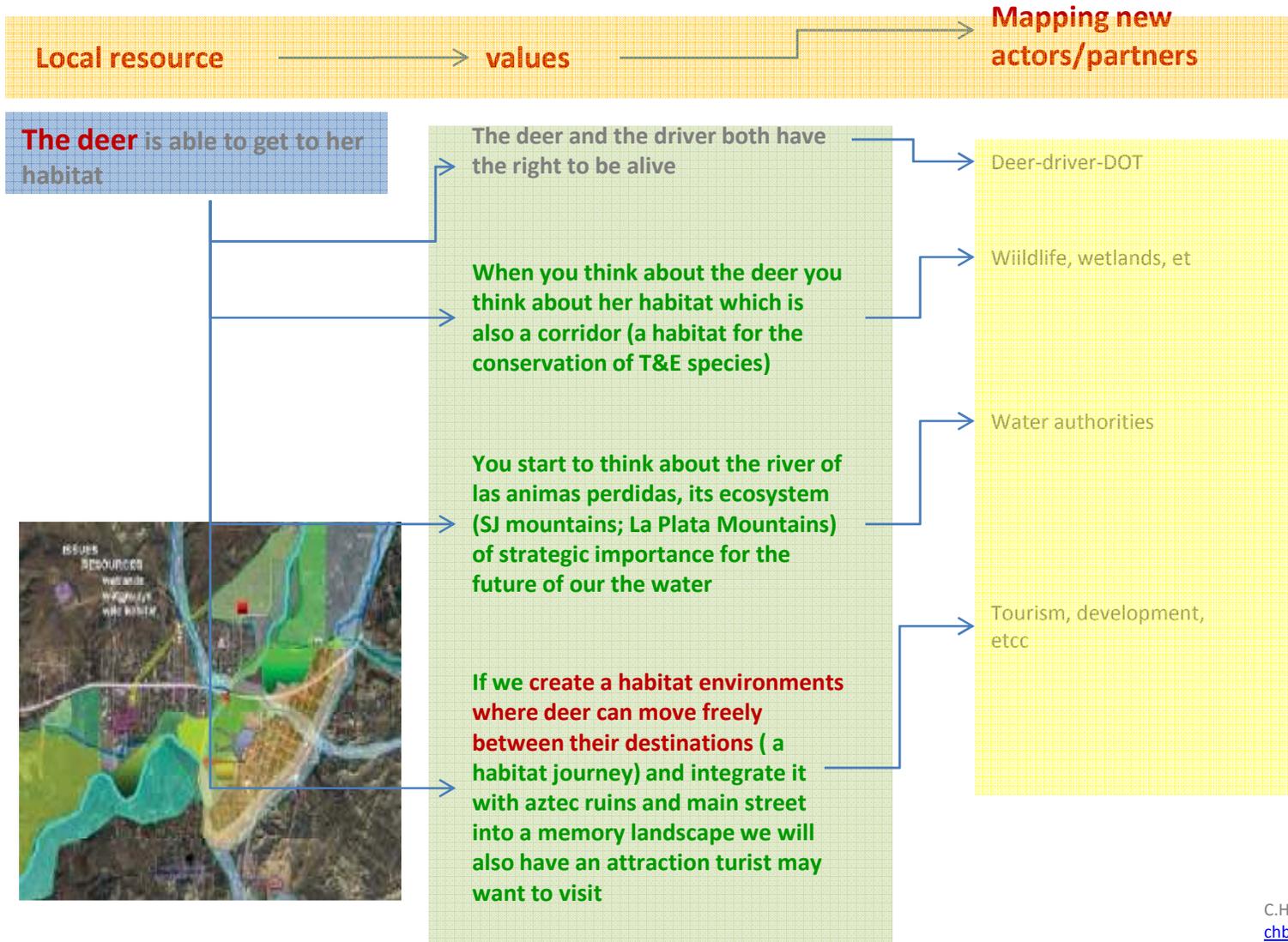
**BY WHY SHOULD WE CARE ABOUT the deer BEEN ABLE TO CROSS THE HWY?**

**HERE IS WHERE WE NEED TO TRANSFORM THE LOCAL RESOURCE INTO A STRATEGIC VALUE**



# transformations: from resource To value and actors

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# impacts: inventory

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The hwy splits/bisects the space of the community in several fragments

## THE CITIZEN AND THE CONSUMER

IF you keep/walking-biking you will soon notice a downtown fragmented by both 516 and 550. People who live 2 minutes from the store can only get there by driving a car

the citizen is denied a public realm and the consumer is denied a pedestrian environment

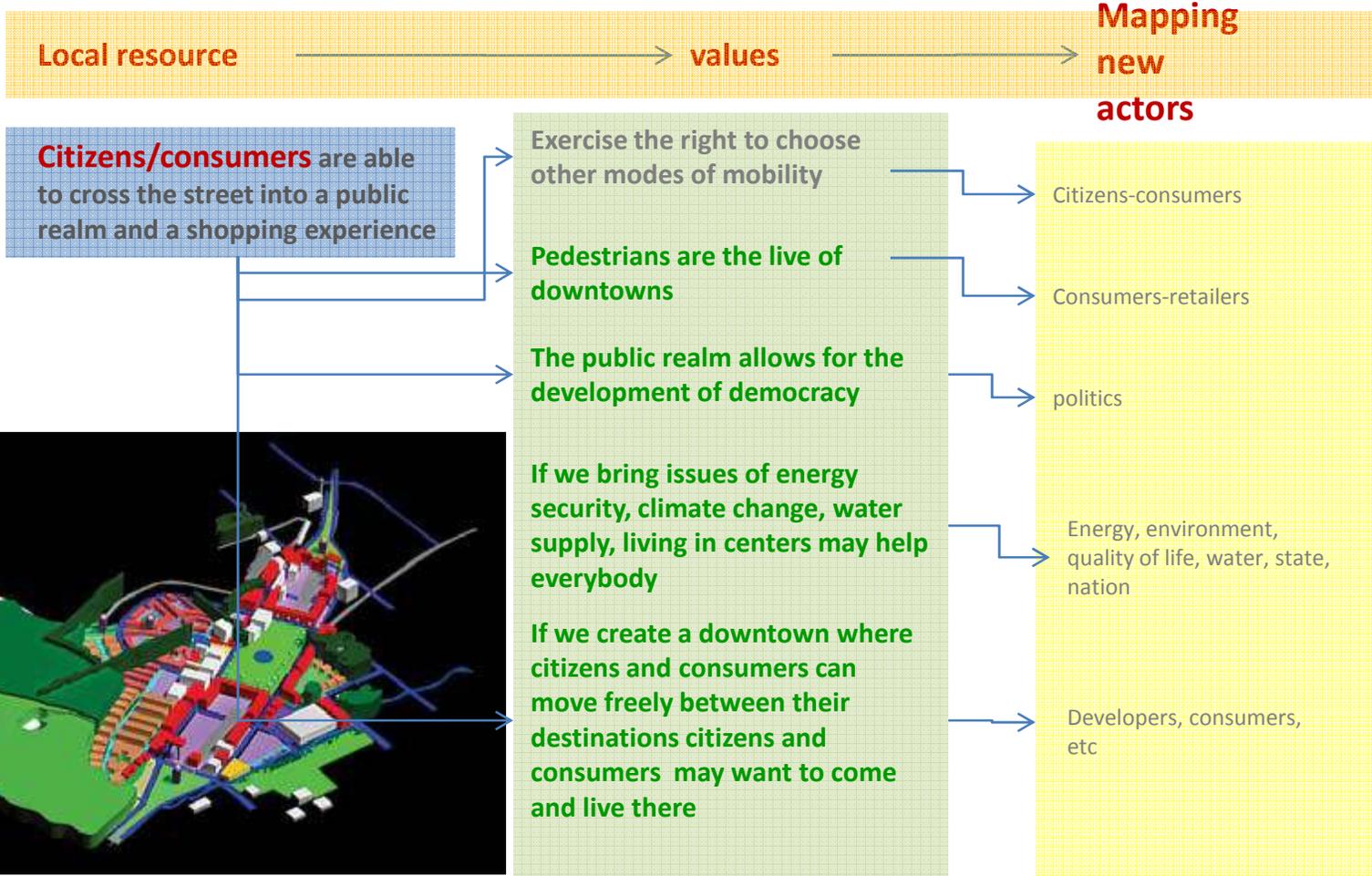
BY WHY SHOULD WE CARE ABOUT the citizen BEEN ABLE TO CROSS THE HWY?

HERE IS WHERE WE NEED TO TRANSFORM THE LOCAL RESOURCE INTO A STRATEGIC VALUE



# transformations: from resource To value and actors

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# pause: re-framing

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Notice that by-now the problem has gone through a series of **re-framings**:

The problem is not only to expand the hwy in order to respond to a projected demand **(this is the most likely future)**

The problem is that the actual and expanded highway will impact negatively a series of local resources that are strategic values for the future.

We want to guarantee the future of these values; therefore we need to guarantee the sustainability of the local resource **(this is the desirable future);**

**So we need to rethink the hwy so that it will preserve and help to develop these resources and values (it is important to explore the desirable future rather than concentrate in the most likely future)**

**How do we go about doing this?**

*understand the changing nature of the problem we were trying to address, reframe the problem we were trying to resolve, and reformulate our relationship to this problem, as well as to reframe the different stakeholder's positions in a way that a more productive dialogue could develop*



*Reframing is also an exercise in second-order and double-loop learning since the latter concerns new insights that relate not only to the solutions to a certain problem but also to the problem itself and to the context in which decisions take place*

*Double loop learning entails changes in the assumptions, norms and interpretive frames which govern the decisionmaking process*

*Double loop learning contrasts with single loop learning, respectively, in which problems are corrected or policies altered without changes in problem definition, interpretive frames or in norms and values*

# designing: from desirable futures to trend breaching scenarios

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Notice that when we transform the local resources into values these values can be formulated as **desirable (in contrast with possible) futures.**

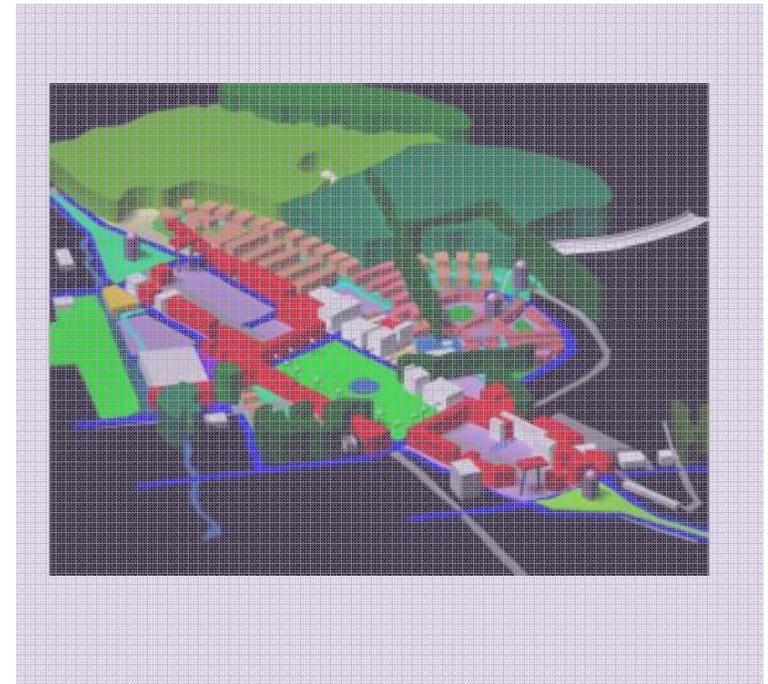
We all desire that our kids exercise their autonomy...etc, therefore we need to create Conditions for protecting the local resource that creates these values (e.g., kids crossing the street)

we not only mapped actors But defined some new mobilities:

- The journey of the kid in a learning environment
- The journey of the deer in a habitat
- The journey of the citizen in a public realm and
- the journey of the consumer in a retail environment

**So the initial question at the beginning of this presentation: what are the infrastructures we need to invest in the future becomes:**

**What are the infrastructure we need in order to facilitate these mobilities in those environments?**



# Re-conceptualizing: highways

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So we need to explore some scenarios for those desirable futures

## First Scenario:

As the hwy enters the city it does not encounter an empty space, it encounters buildings as well as

- The journey of the kid in a learning environment
- The journey of the deer in a habitat
- The journey of the citizen in a public realm
- And the journey of the consumer in a retail environment

When this happens we have to rethink the hwy as a public realm; as a space to be shared between these different actors, their journeys and their habitats. We need to

## Concepts

- Hwy as civic space
- Hwy as habitat
- Hwy as shared space
- Public realms
- bundle of infrastructures

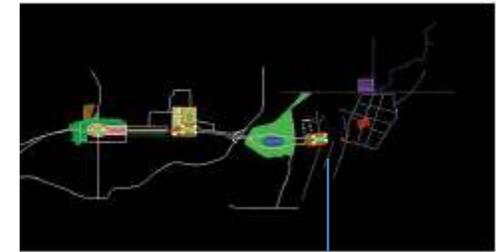


# highways: as multi-D street experiences

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## The highway as a shared space:

the organizing idea is to transform the traditional vehicular intersection (516-550) into a downtown heart with the help of a leaf model So as to facilitate the **journey of the citizen and the consumer in a downtown habitat**



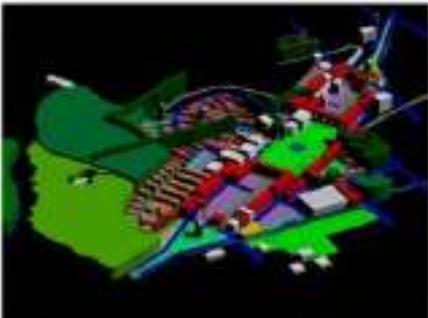
**The Highway as a Shared Space**  
**NM516-US550 Crossing**  
 Transportation-land use and urban design study  
 The City of Aztec, New Mexico



**Before:** a classical mono-modal intersection



**After:** a shared space



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The goal from the outset has been to turn the entire length of the surrounding highway and of the right of way into a street park - a parade of art nature and community - from the NM516-US550 intersection through the river of the Animas Perdiendo, a place that brings the calming rhythms of nature and the river to the present urban environment of NM516-US550 and provides public access to the river waterfront from the neighborhood and the city. We propose to re-define the street as a shared street, that is, as a street right of way which is part of the street circulation pattern, and through a variety of treatments, such as sidewalk widening, landscaping, traffic calming, and pedestrian oriented features, is enhanced for pedestrian circulation and open space use. We propose to transform a classical mono-modal intersection between two arterials into a shared civic space.

Figure 2: Cover Page *The highway as shared space* (NM516-US550 Crossing)



# highways: as multi-D street experiences

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## The highway of happiness:

The intersection as memory landscape integrating Aztec ruins, the river, and main street

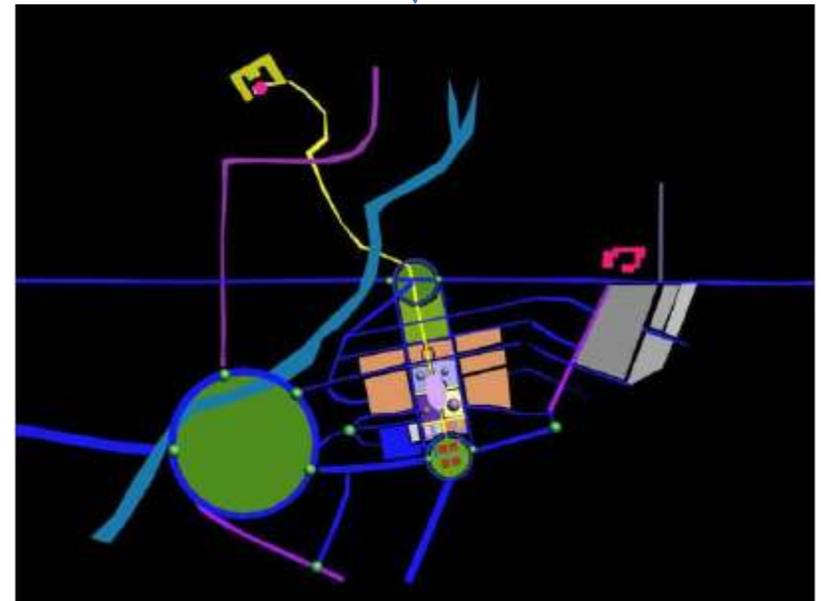
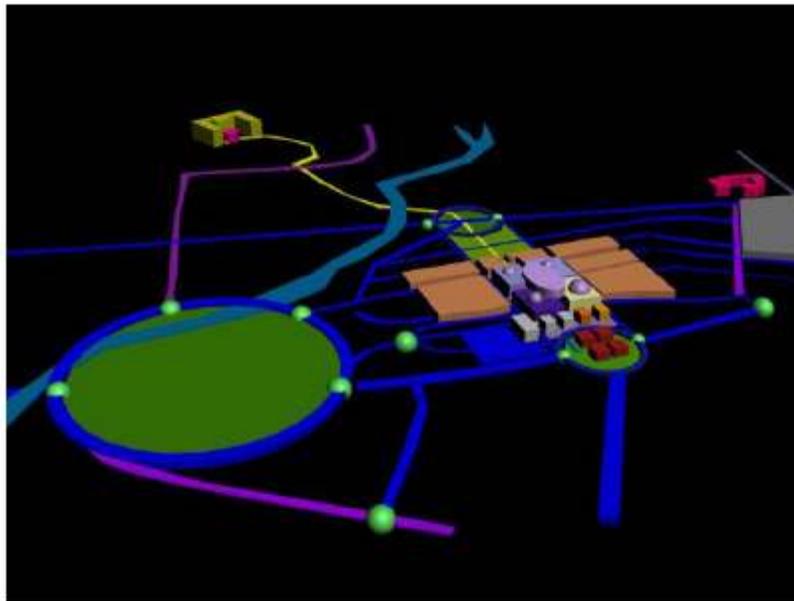
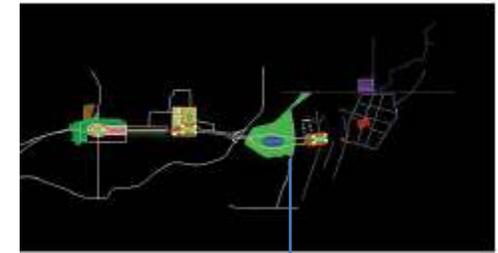


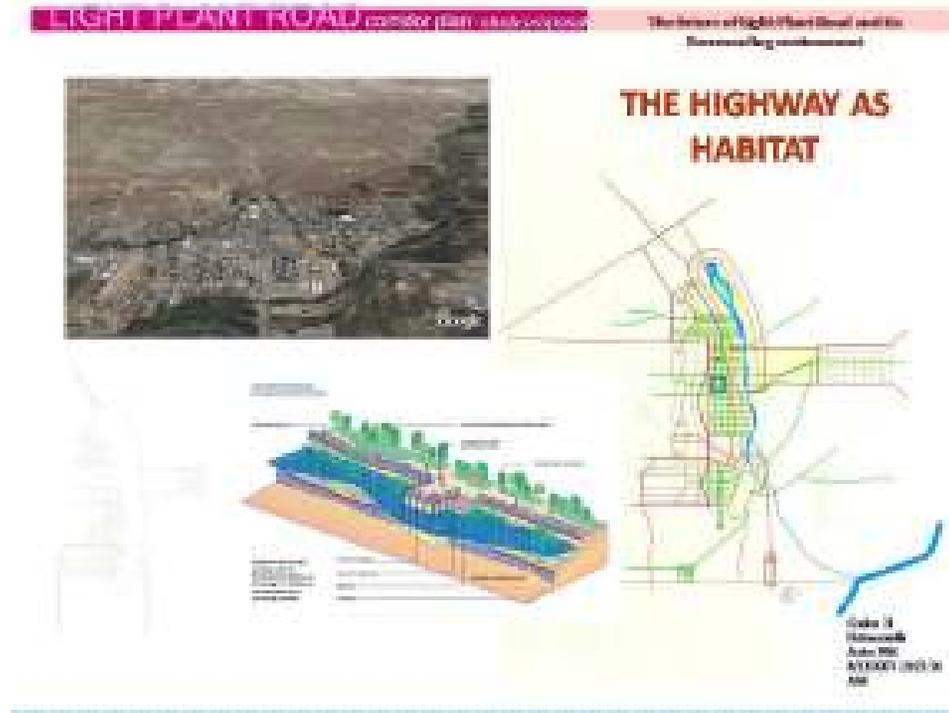
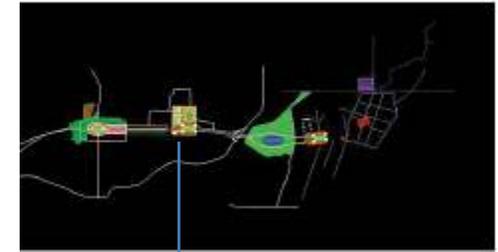
Figure 20: the highway as a street and the intersection in action as a memory landscape: the stretch between the River of *Las Animas Perdidas* until the US550-NM516 Crossing. This proposal integrates valuable resources (such as the river waterfront and landscapes, Aztec ruins, and historical main-street) into a memory highway landscape.

# highways: as multi-D street experiences

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## The highway as habitat:

The intersection as memory landscape integrating Aztec ruins, the river, and main street



# highways: as multi-D street experiences

The highway as bundle of infrastructures:

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Figure 4: Cover Page the *highway as a multidimensional infrastructure* for the production of multi-mobilities and energy (the pathway to the future)

# highways: non traditional intersections

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Intersections in Action as memory landscapes  
The idea is then to create a strong relationship between the highway as a multi-dimensional street and its surroundings by extending the surrounding (and its values and access) across the highway as street.<sup>79</sup>

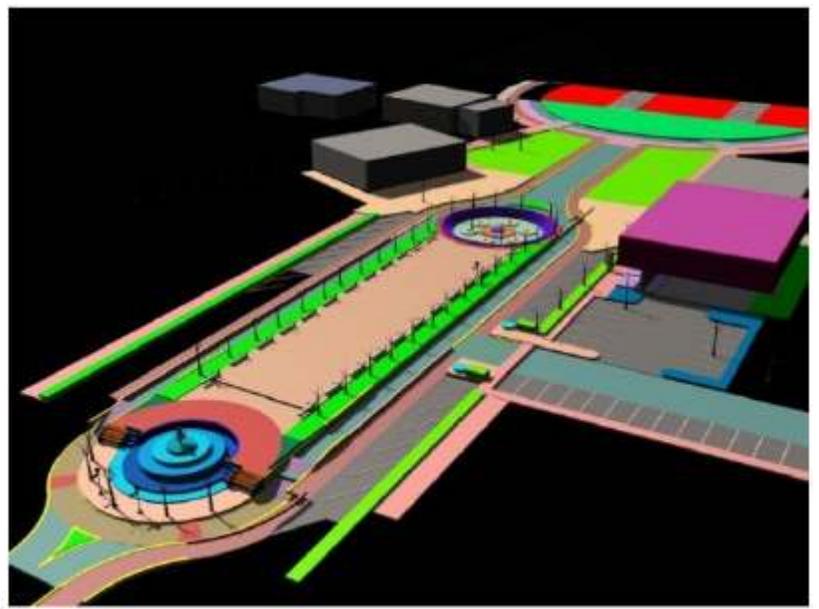


Figure 8: Nm516-US550 Crossing: urban design and master plan proposal: from a traditional intersection to the *highway as a shared public space*

# highways: non traditional intersections

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The highway as a public space to share and the intersections in action as chains of memory landscapes

A central idea of these studies has been to transform the intersections of the highway

with the city into shared spaces and multidimensional places immersed in memory landscapes

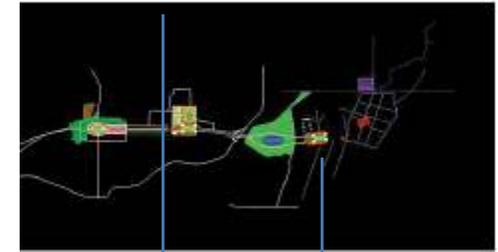


Figure 12: *the highway as habitat*

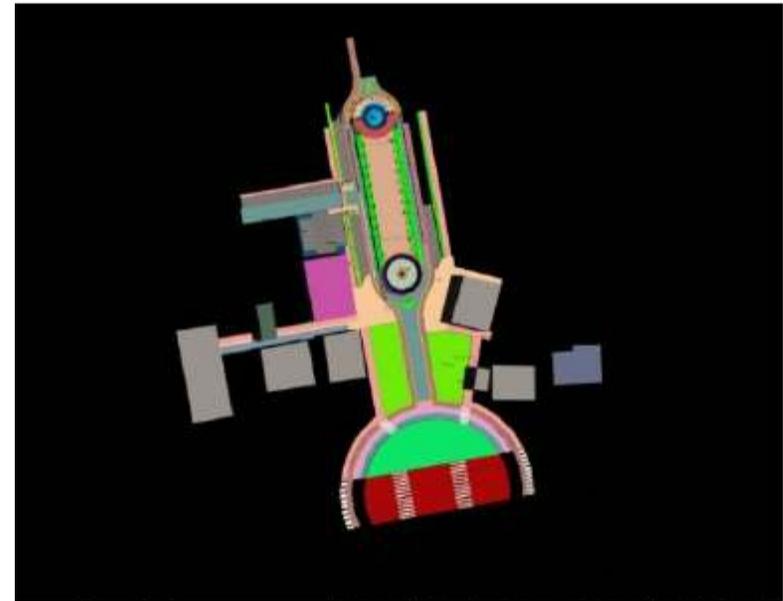


Figure 11: design proposal North Main Extension (In NMS16-550 Crossing): **the highway as street and the intersection in action as memory landscapes.**

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# highways: non traditional intersections

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Figure 13: the highway as a street with the intersections in action as memory landscapes: the stretch between Oliver Street and Light Plant Road)



Figure 17: the highway as a street and the intersection in action as a memory landscape: NMS16-Us550 Crossing



Figure 14: the highway as a street and the intersection in action as a memory landscape: a vision for NM516-US550 crossing (Scenario 1)



Figure 15: the highway as a street and the intersection in action as a memory landscape of "Kivas": a vision for NM516-US550 crossing (Scenario 2)

# conclusion: interactive process

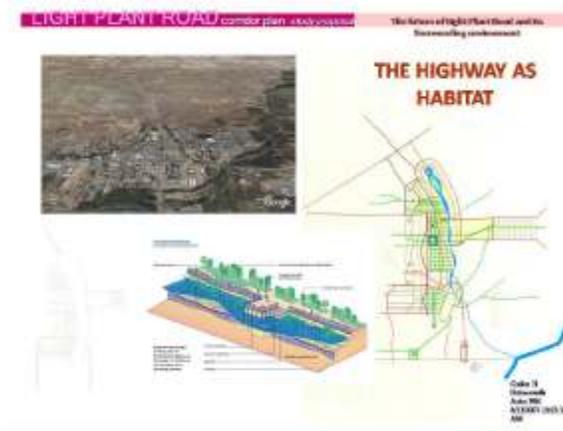
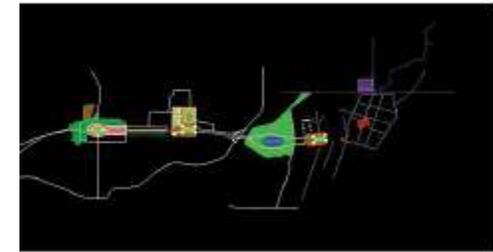
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These scenarios for the development of the above desirable values (visions) and local resources are maps of spaces of possibility that are to be followed by reasoning backwards (master plans).

This is where we are now: trying to create blueprints (strategies and action plans) to bridge the present and the imagined futures (through master plan exercises and the design of tools for action

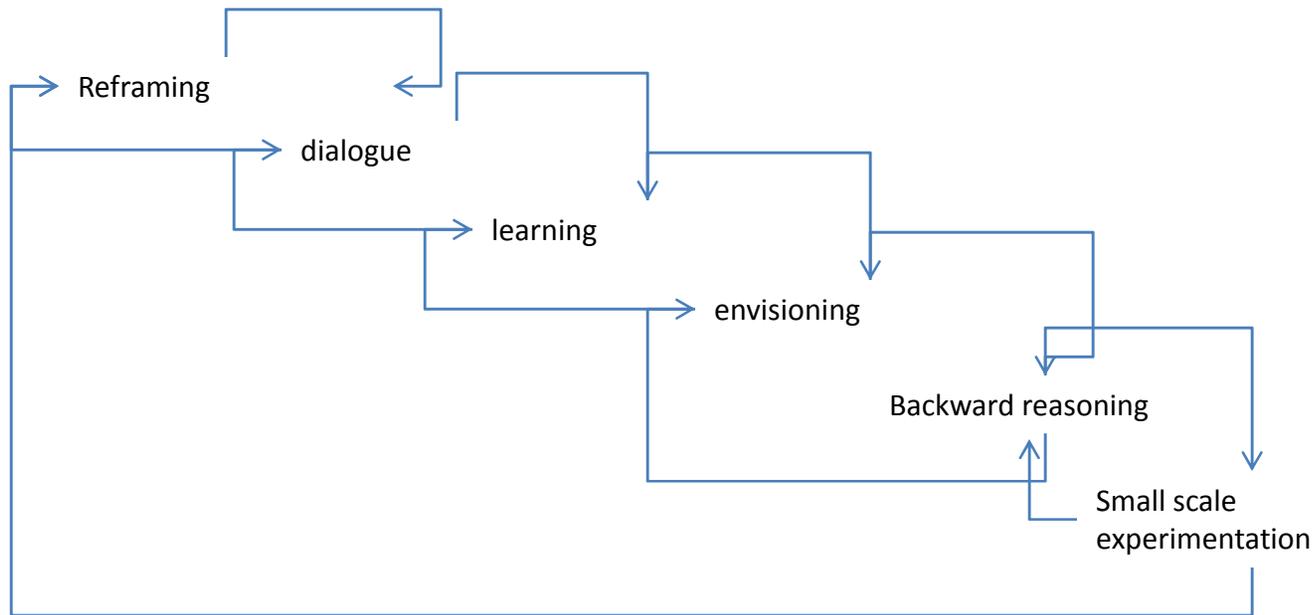
This allows us to explore obstacles/opportunities that may occur in the implementation of a given scenario.

These attempts to find out the most important problem that needs to be solved in order to implement the scenario, will be followed by small scale experimentation where the solution to those problems can be explored (designing a code)



# conclusion: procedures

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It is through this series of interconnected procedures and iterative processes that The desired future image becomes a product of the process of trying to reach it

