

A photograph of a traditional Japanese garden pond. The water is calm, reflecting the surrounding greenery and large, grey rocks. In the foreground, there is a patch of bright green grass. The background shows more rocks and lush green plants, creating a peaceful and natural setting.

Center for LifeLong Learning and Design, L3D

**Creating Environments to Support
Collaboration in Learning, Design & Planning:
Education, Participation, Environment, and Technology**

Farewell & Hello

January 19th, 2007

Ernesto G. Arias

*College of Architecture and Planning
University of Colorado - Denver
Center for Lifelong Learning and Design
Institute of Cognitive Science
University of Colorado- Boulder*

Source: *Kyoto Gardens / Arias*

An Overview

Appreciation

Concerns, Interests and Basis behind work

practice, participation, tools, environment

Programs ... selected efforts to address concerns

UG in Planning, L3D, ProDUS and RIF-GAE

Closing thoughts ... the Next Phase

Extending CU Programs in to CR/LA efforts

Appreciation

At PENN

Wm. G. Grigsby, Jon T. Lang, Seymour Mandelbaum, Ian McHarg, Britt Harriss, Dave Wallace, Ed Bacon, and Kevin Lynch

At CU

- CS and ICS
- L³D members: past and present
- CAP: faculty and a group of Ph.D., Masters and UG students
- Others at CU in various departments and programs
- Folks in Administration (Boulder & Denver)... Bruce Ekstrand a colleague and friend

Beyond CU

- Bob Harris at NCAR, Hanns Seidler at TUD, Frieder Nake at UBremen and Luc Anselin at UI, Joni Teeter at EPA, Will Toor at Boulder County
- UCR & CENAT: Rosendo Pujol, Carlos Quesada, Gabriel Macaya and Yamileth Garcia, Pedro Leon and Jorge Gutierrez, and Guy DeTeramond
- COLAM: The Executive Council, Patricia Gudiño and Arcadio Cerda at U of TALCA, Chile

My family

A photograph of a young child with a walker on a sidewalk. The child is wearing a white t-shirt, dark shorts, and has braces on their legs. They are walking towards the camera. The sidewalk is paved and runs alongside a light-colored building with windows. To the left of the sidewalk is a grassy area with a large metal barrel. In the background, there is a yellow school bus parked under a covered area.

Background Basis

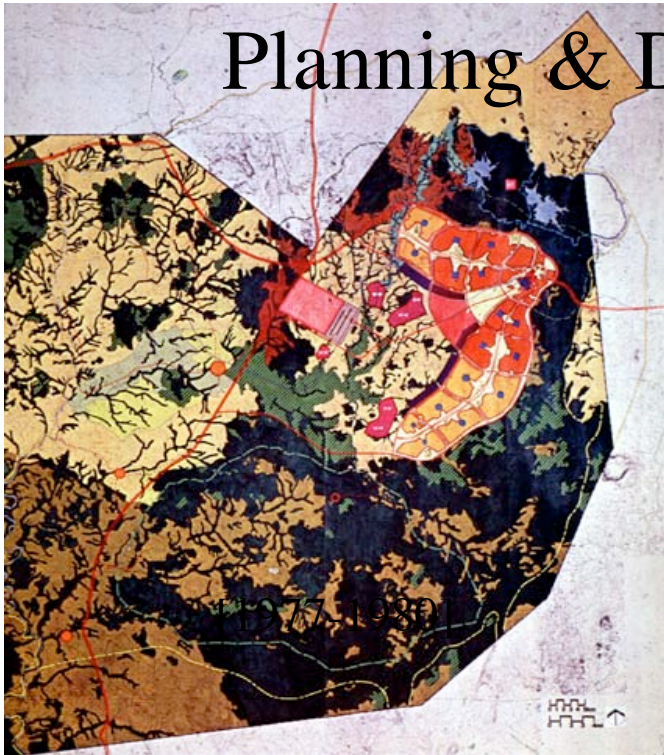
Concerns,

and Interests

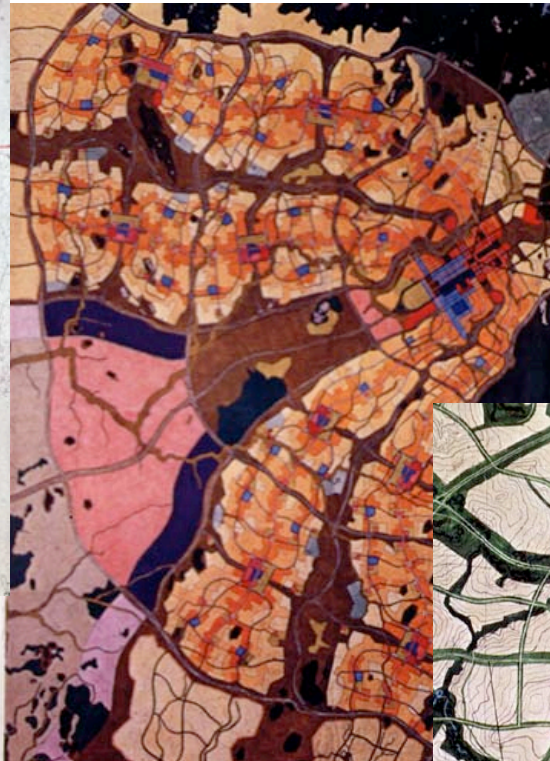
Architectural Thesis - U of Fla,
A Rehabilitation & Training Facility
1968

Creating a New City

Planning & Design Practice (w/McHarg & Wallace)



Region



City



City Core

Abuja, Nigeria - 1978-1981

Abuja's Center: *from design to reality*



Planning & Design Practice



Recycling the City:

Miami Park West's Redevelopment Program (w/McHarg & Wallace)



Complex systems : creativity focus structure and function

Roles of Client and the Critical Coalition

Designing a design framework:

Design Critics – Prescriptive & Performance

Creating a space for creative solutions

Information visualization

Making tacit knowledge explicit

Backtracking arguments

Nature of Design Problems

Some problems are of the type ...

$$X+2=6, \text{ what is } X=?$$

Their nature has the following characteristics...

- Well structured with *known definitions* and can be solved;
- Solutions are of a “*right/wrong*” type;
- Have an *ending* point

These are TAME problems

Other problems are of the type ...

Mom: “Mary, do me a favor, go to the grocery store. We need milk, bread and cheese. All I have is \$5, so decide what to get and bring me the change.”

Mom: “Mary, do me a favor, go to the grocery store *with your brother*. We need milk, bread and cheese. Between the two of you decide what is most important to get with the \$5 and bring me the change.”

The nature of these problems have the following characteristics ...

- “*Open-ended*,” “*ill-defined*” and do not have “*right/wrong*” type solutions
- “*Multiple objectives* and *multiple criteria*” for their framing and resolutions
- Characterized by *conflict and change* therefore *do not have solutions*... only *resolutions*
- *Multiple participants/stakeholders* who change, and enter or leave the “problem space”
- *Uniqueness*

These are WICKED problems (Rittel, Webber, Simon)... *design problems*

An Argument Behind Participation:

Its Importance in Design and Planning

- Planning/Design => $E \Leftrightarrow B$ => notion of "fit"
- "fit" => "is" vs. "should be" => the notion of "problem"
- **Nature of these Problems ... "wicked"** (Rittel, Webber, Simon)
And...

- **Individuals/groups are the owners of problems...**
have the *relevant tacit knowledge*

Therefore...

- *Informed participation in Planning/Design is valuable ...*

--> tacit knowledge explicit

--> informed compromises

--> construction of shared understanding

--> framing and resolution of problems

- *lead to interventions ... or design and planning solutions*
Or... sometimes more problems?

Complementing *the Symmetry of Ignorance* in Participatory Planning...

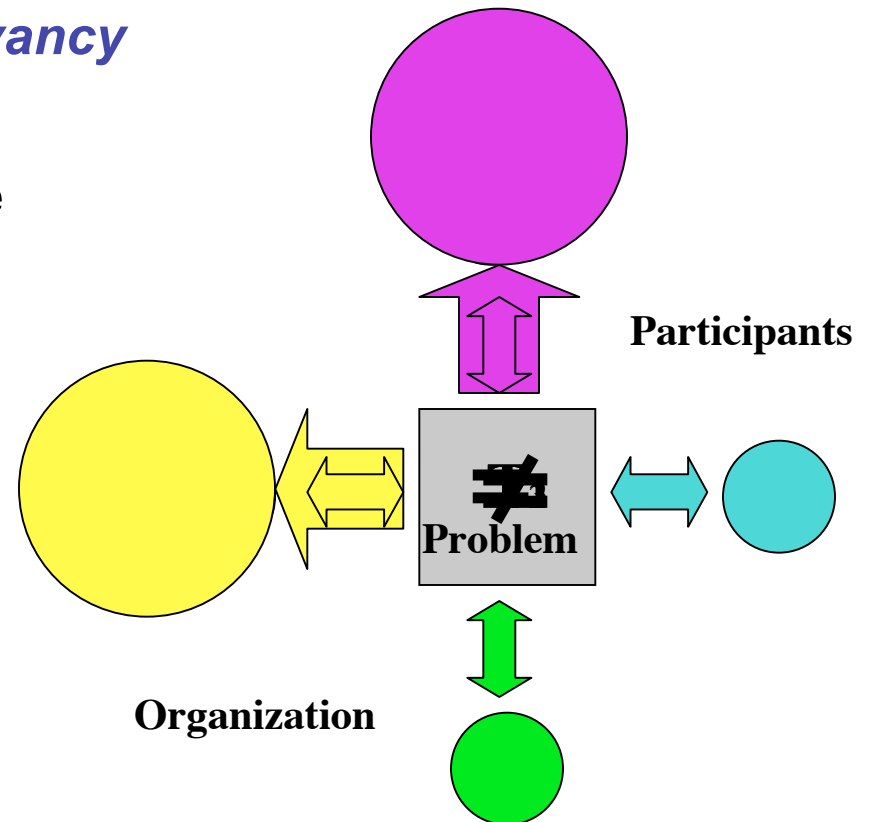
The Asymmetry of Knowledge [Arias, 1997]

While *individual knowledge* should be considered of **equal importance** ...

It is **asymmetrical** in terms of its **relevancy**

Its **RELEVANCY is contingent** on the
“participation situation” and:

- **It emerges from the situational context**
- **It is dynamic and its focus changes**
- **It is NOT equally relevant all the time**

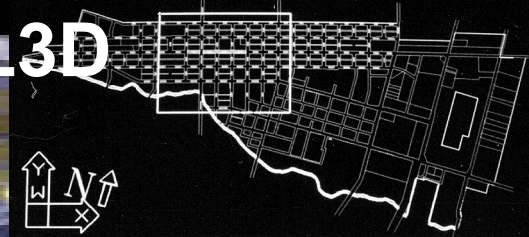


*Asymmetry of Knowledge in a
Participatory Planning Situation*

Tools

SIMLab at CAP & L3D

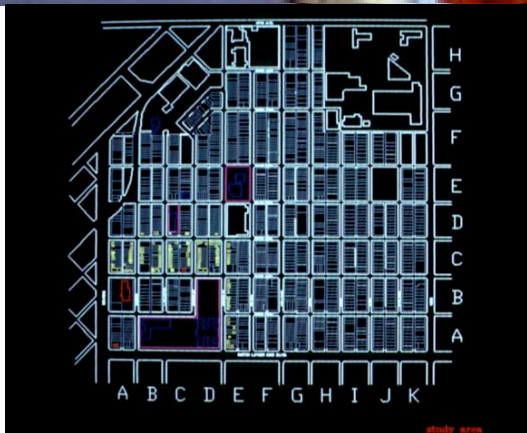
CENTRAL BOULDER
LOCATIONAL ANALYSIS
AN URBAN SIMULATION



Designing to Learn

and

Learning to Design



Tools of the SIMLab at CAP : Designing to Learn and Learning to Design



Training Neighbors

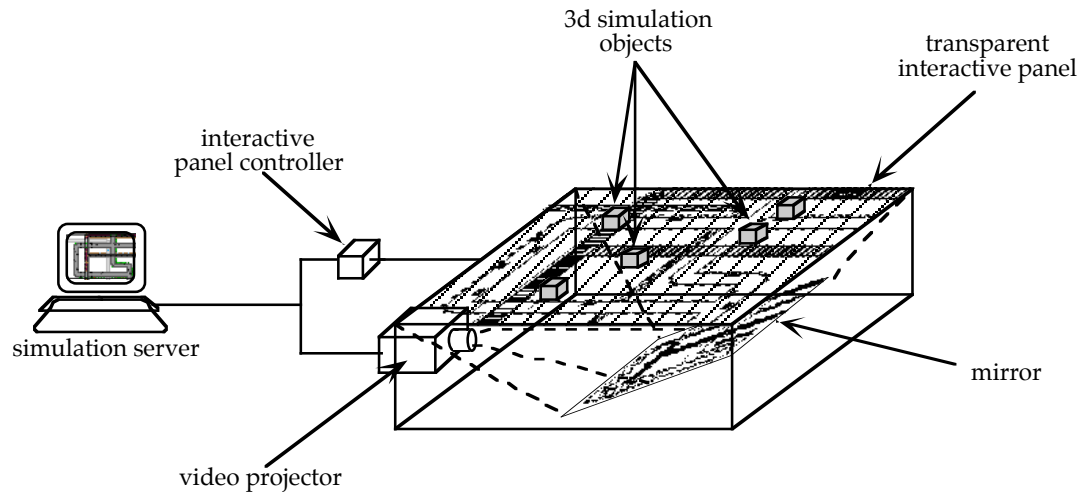
The Cole Neighborhood, Denver, CO.

Helping Neighbors Help Themselves (Arias 1990)

Block Level Simulation



INTERSim & EDC



Idea - 1993



InterSim 1994



EDC 1996

EDC / PitA - Action Space



social map table browser
SM Class Diagrams Conn
proj home zoom in zoom out home view



Environment

Only One

Population growth, carrying capacity of natural resources and human behavior

... *“The tragedy of the commons”*

Harding

Beyond the Proverb ...

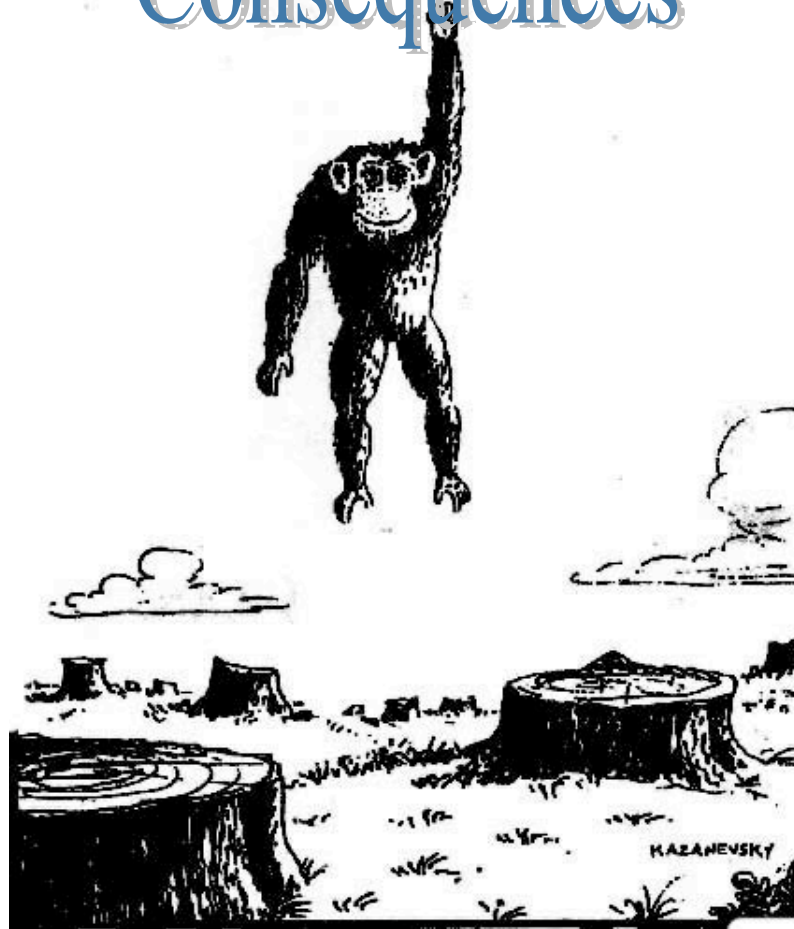
from

*“Do not give them fish,
teach them how to fish”*

to

*“Do not teach them how to fish,
teach them how to manage our
rivers and oceans”*

Consequences



The larger purpose behind planning ---
How can it be supported to address such concerns?

**ESTRATEGIA DE CONSERVACION PARA EL
DESARROLLO SOSTENIBLE DE COSTA RICA**

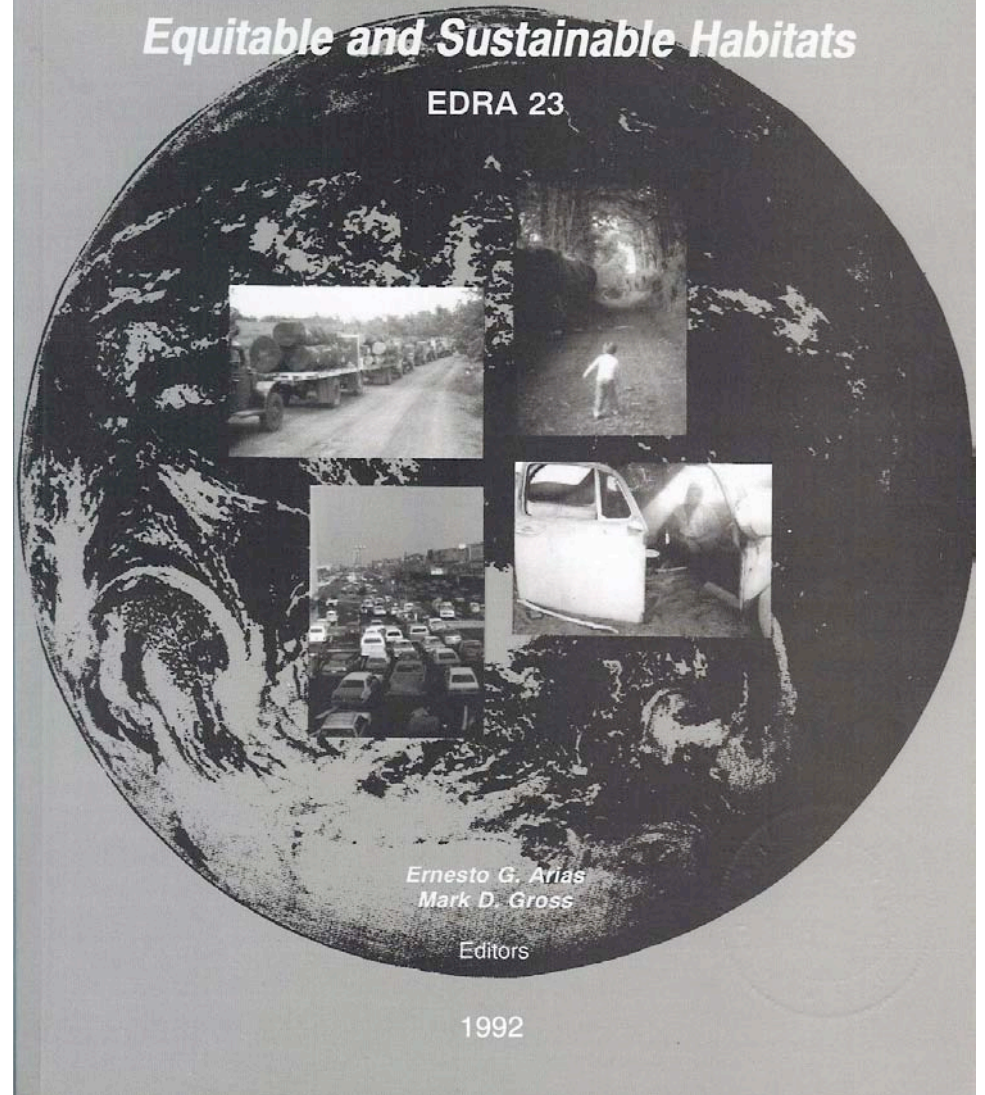
1988



MINISTERIO DE RECURSOS NATURALES, ENERGIA Y MINAS
REPUBLICA DE COSTA RICA

Equitable and Sustainable Habitats

EDRA 23



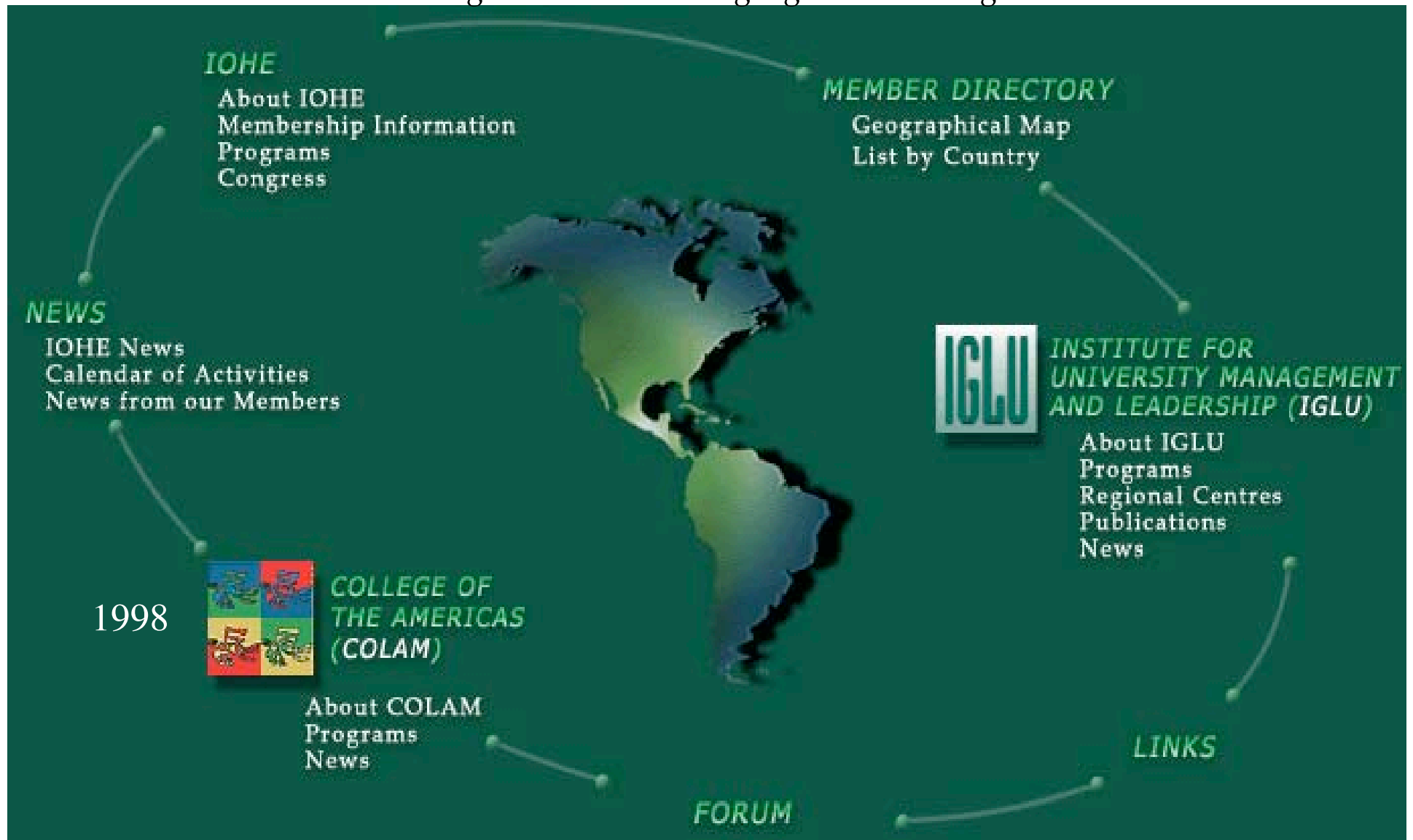
Ernesto G. Arias
Mark D. Gross

Editors

1992

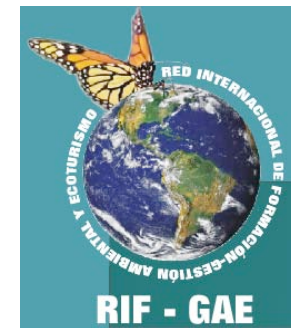
Higher Education

*The world we have created is a product of our thinking.
It cannot be changed without changing out thinking A. Einstein*



Programs

...Efforts to address concerns and integrate experience



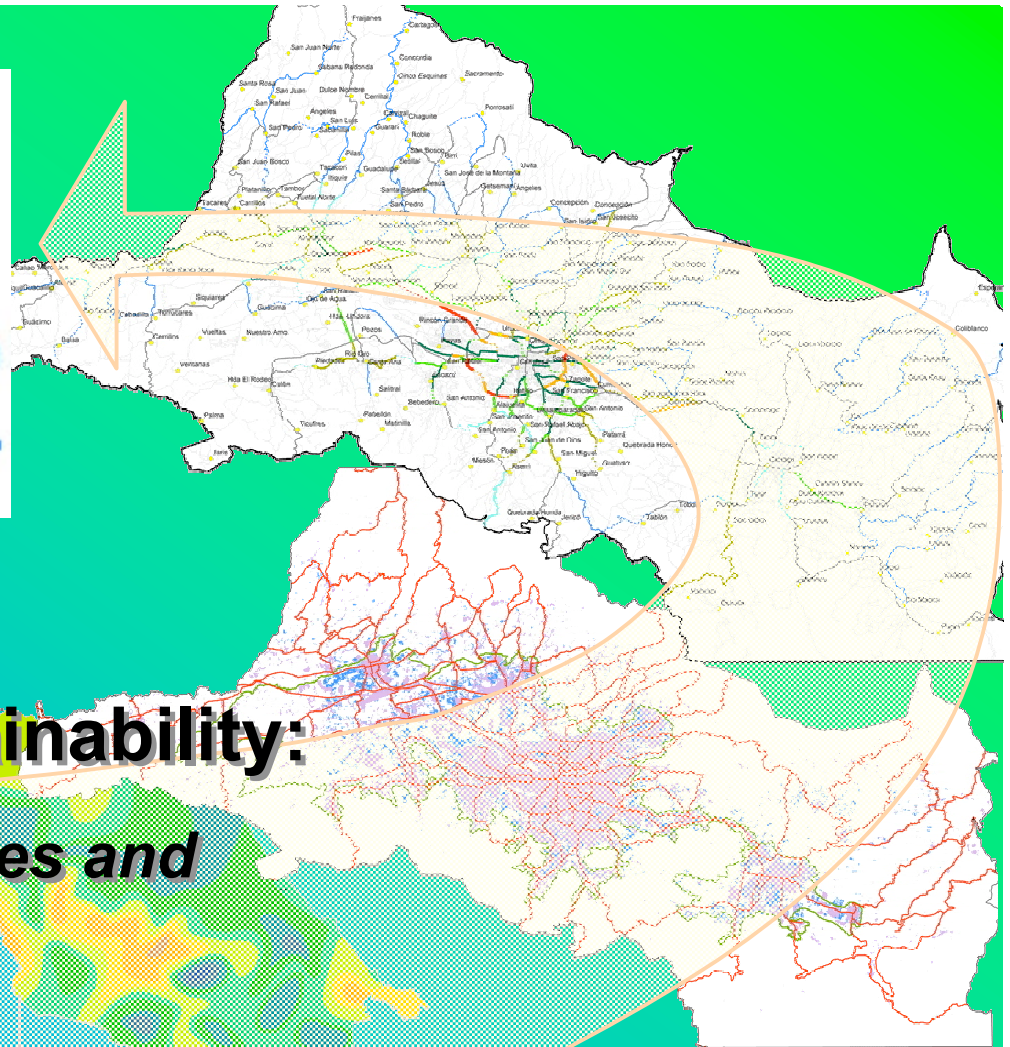


Center for *LifeLong Learning & Design*

University of Colorado at Boulder

2004





Regional & Urban Sustainability:

***Supporting National Agencies and
Municipal Governments***

Costa Rica, CA

1990



**With
Rosendo Pujol, Ph.D.
Carlos Quesada, Ph.D.
Universidad de Costa Rica**





UNIVERSIDAD DE COSTA RICA
SISTEMA DE ESTUDIOS DE POSGRADO

MAESTRIA INTERDISCIPLINARIA EN GESTION AMBIENTAL Y ECOTURISMO

(MAESTRIA ACADEMICA Y PROFESIONAL)

ENFASIS DE LA MAESTRIA PROFESIONAL

DISEÑO DE POLITICAS
DISEÑO DE SISTEMAS RECREATIVOS
IMPACTOS AMBIENTALES Y SOCIALES

INICIO 2003

Con el apoyo del Colegio de las Américas (COLAM) y la Red Interamericana de Formación Ambiental y Ecoturismo (RIF-GAE) compuesta por las siguientes instituciones Universidad de Colorado (Estados Unidos), Universidad de Oriente (Venezuela), Universidad de Talca (Chile), Universidad de Sherbrooke (Canadá), Universidad de Quisqueya (Haiti), Universidad de Costa Rica (Costa Rica)

Información

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Interamerican Journal of Environment and Tourism

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UNIVERSITY OF COLORADO, DENVER
USA

EDITADA POR

UNIVERSIDAD DE TALCA
CHILE



Ecology and Natural Systems

Undergraduate Planning Program



1988

Sustainable Environments (2006)
Healthy Community Development (2006)

Designed and Planned Systems
Social and Physical

Next Phase

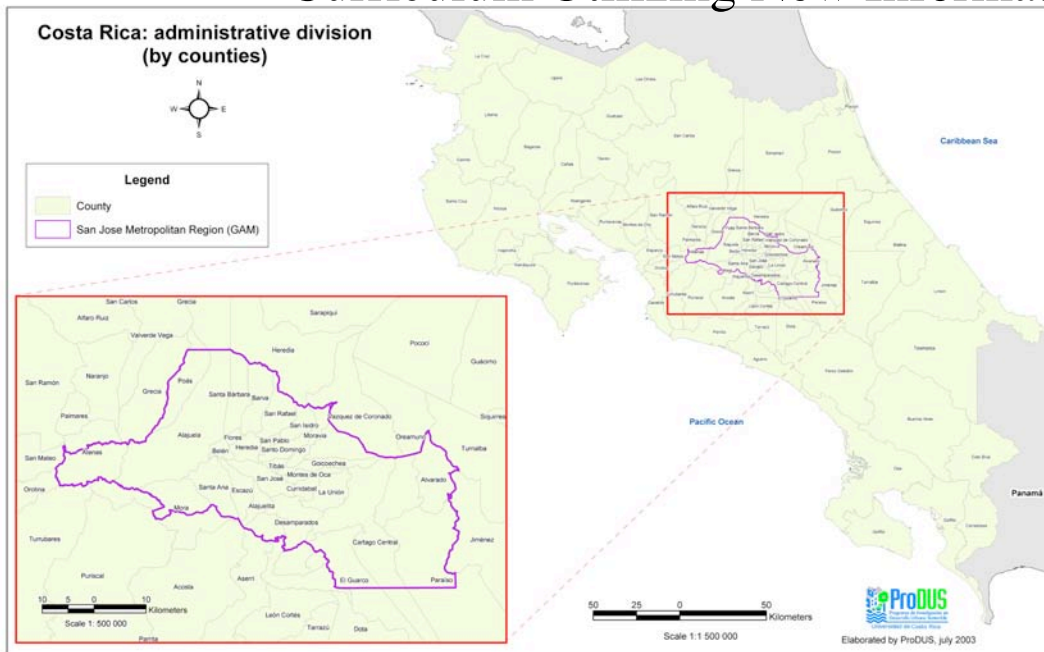
**... Extending CU programs through integrations
with existing efforts in CR**

The future of our created world is not out there to be discovered
(as in the natural sciences) ... it needs to be designed by us

CRUSA Project - 2006-08

Univeristy of Costa Rica, Ministry of Education and L3D

Introducing Environmental Awareness in the Public High School Curriculum Utilizing New Information Technologies



EDC/PitA transfer



High Schools in the GAM

Extending Programs



CS and L³D



CS Dept.
CRUSA Project



Graduate Planning



UCAR/NSF DLESE



CYE Places



CRUSA Project



ICS



ICS Ph.D.



We will miss this!

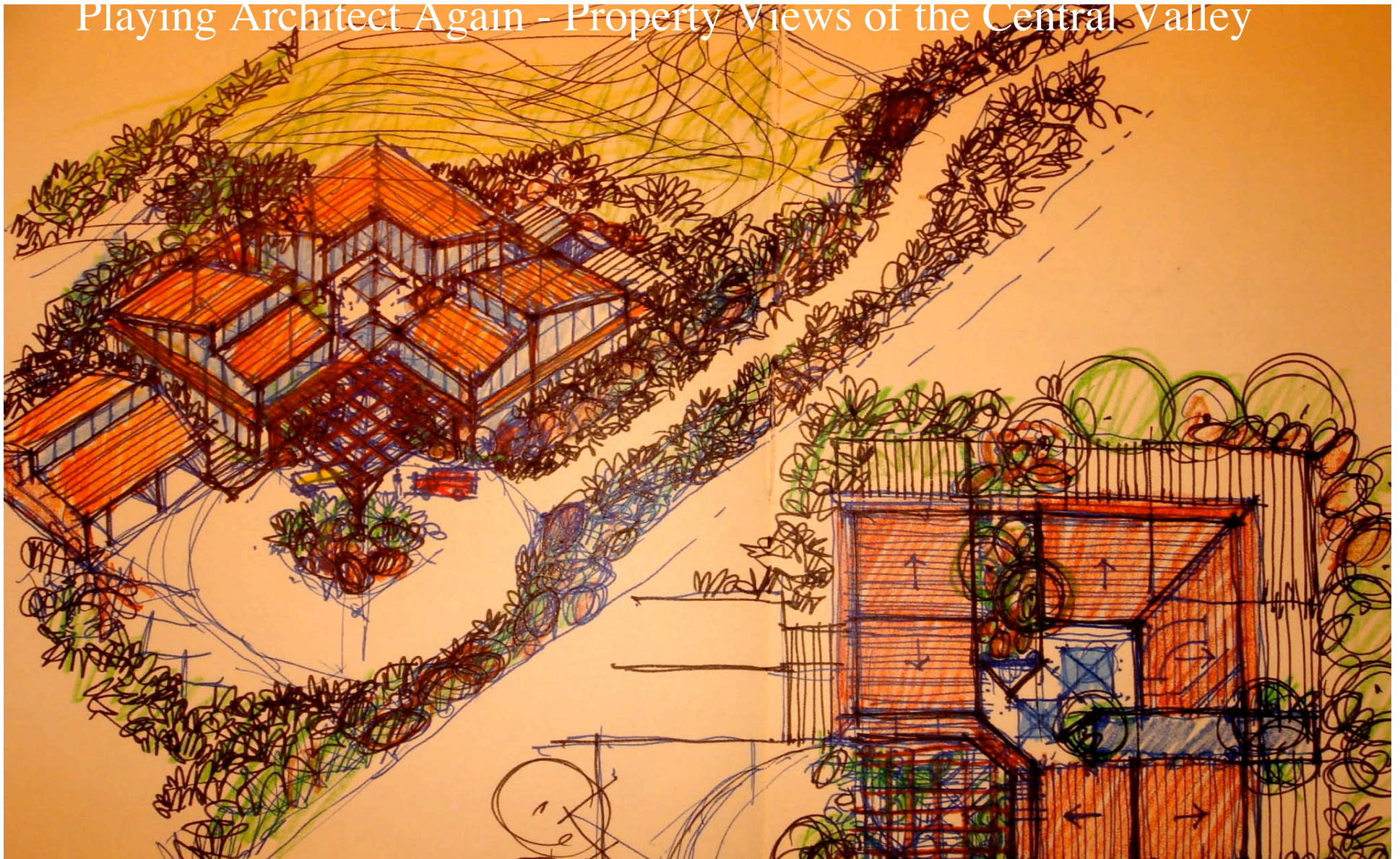
Arias 2006

But ... We will enjoy this!



Arias 2006

Playing Architect Again - Property Views of the Central Valley





So ... Farewell and Thanks



And

Hello and welcome!

