

**HERODOT Conference:  
Future Prospects in Geography**

**PAST, PRESENT AND FUTURE  
OF GEOGRAPHY**

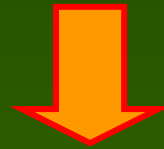
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# Proposition 1

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The centre of the scientific approach to Geography, that constitutes inevitably and the essence of our discipline, is the concept of **geographic space** not only in terms of the way it is regarded, but also with regards to the spatial investigation methodologies.



It is suggested that to understand, evaluate and contemplate Geography is tenable only through the examination of the nature and the evolution of how we perceive geographic space as well as how we investigate it

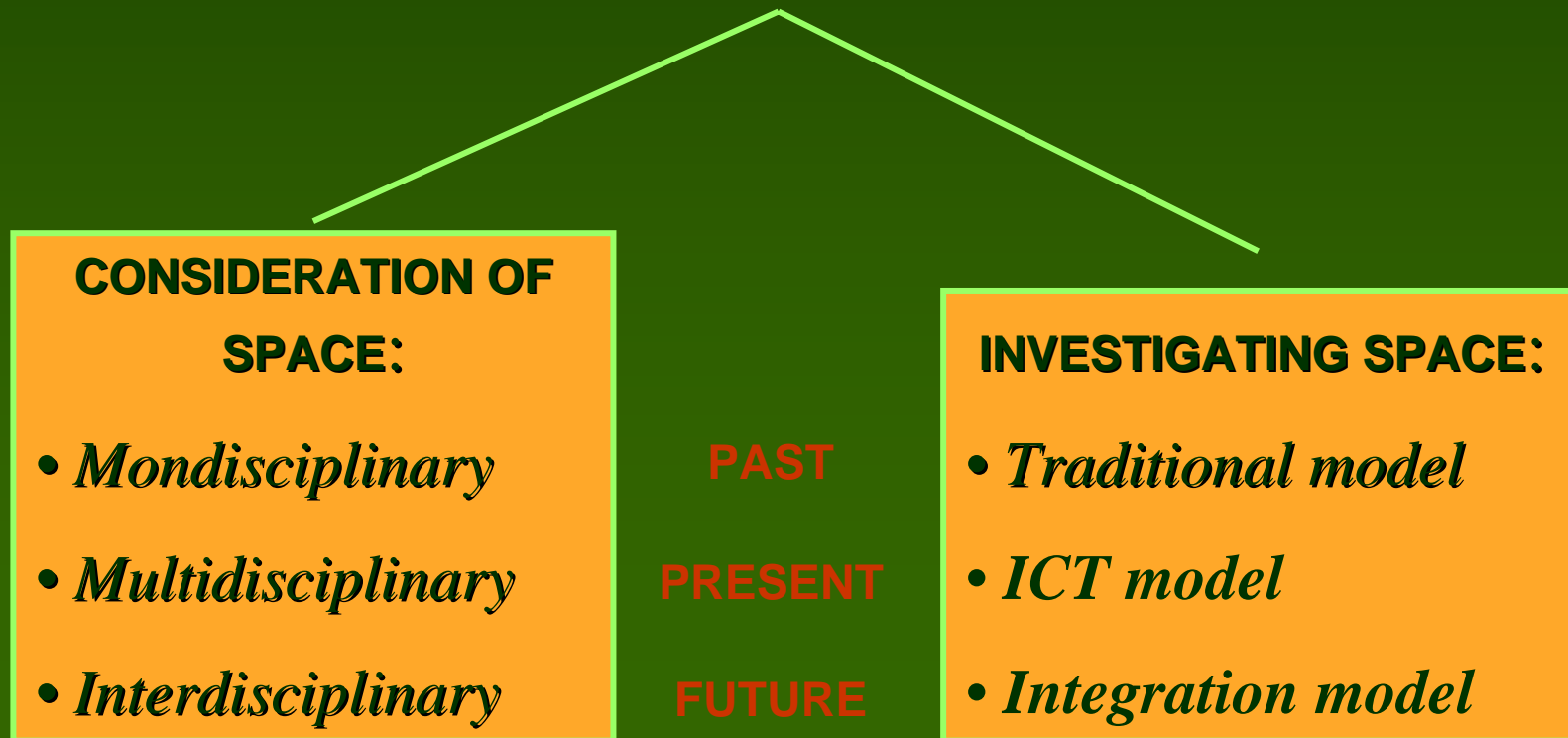
# Proposition 2

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In order to safely contemplate the future of Geography, it is necessary to examine the past and current considerations of geographic space as well as the approaches of investigating it.

# Proposition 3

It can be shown that the two dimensions of geographic space have and are still involved in changes representing what epistemologist Thomas Khun (1962) has termed paradigm shifts.

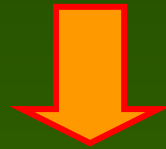


# Consideration of Geographic Space

## Proposition 4

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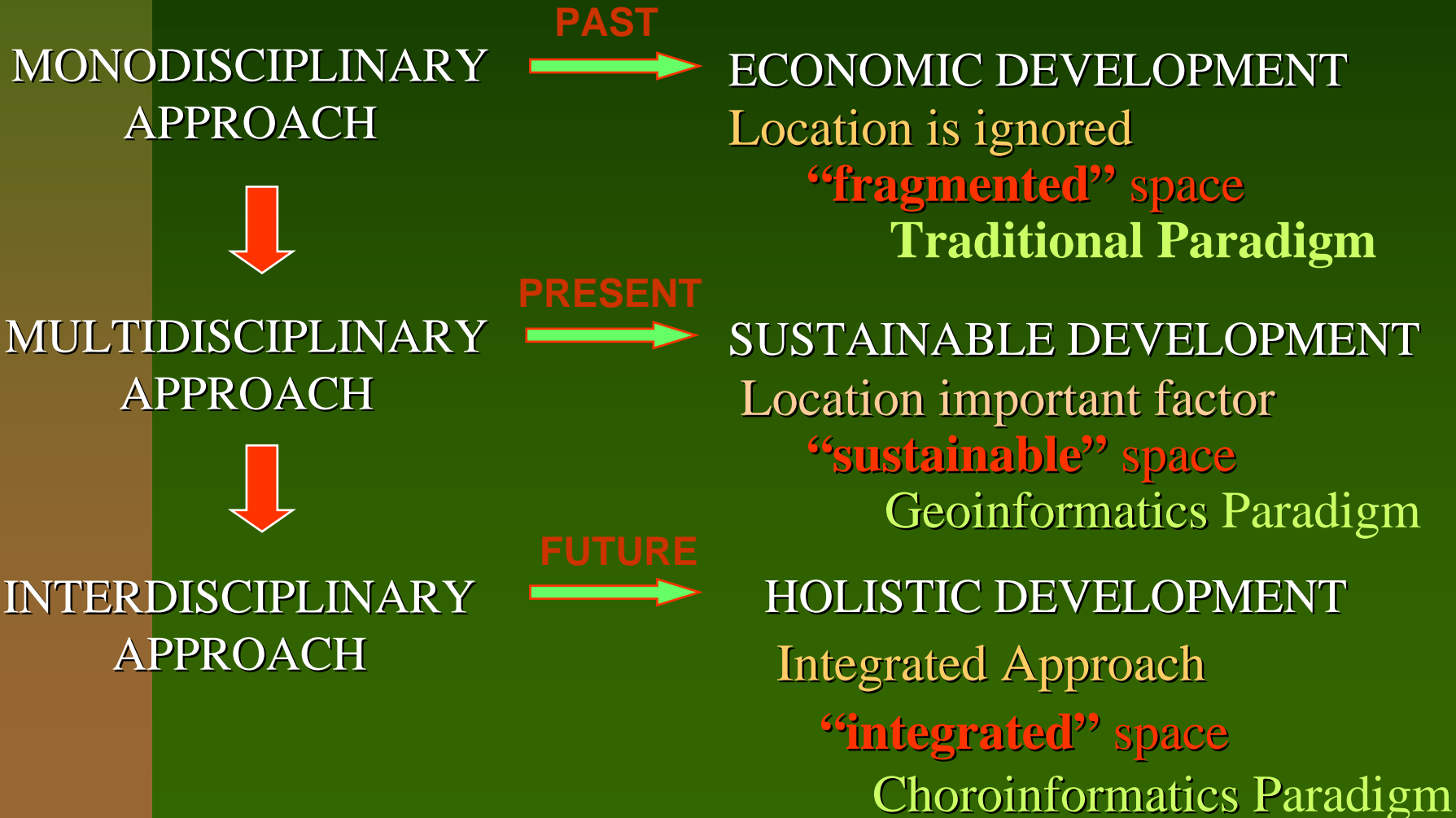
The way we view geographic space has altered in the last 60 years following changes in the way we consider development, for space and development are the two sides of the same coin of societal concern.



That is our interest in the spatial dimension is inevitably connected with society's approach to growth and development

# Consideration of Geographic Space

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# Consideration of Geographic Space

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There has been a continuous evolution in the ways that we regard geographic space.

- It commenced with a disregard of space, resulting in a “fragmented” space.
- It then evolved into considering space as a fundamental component of development, creating a “sustainable” space.
- It has resulted in the present notion that all geographic entities and factors constitute a dialectic unit, an organic “whole”, establishing an “integrated” space.

# Consideration of Geographic Methodology

## Proposition 5

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in order to describe, analyze and comprehend geographic space, a corresponding methodological approach is required



The methodological tools used in examining geographic space have also undergone an evolutionary process of change.



# Consideration of Geographic Methodology

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There has been a change from an old model filled with **traditional methods** to another anchored in **computer technology** and I believe another change has just started where **integration** plays the central or determining role.

# Past: The Traditional Model

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The traditional model was very simple, derived from manual, analytical, and hand-crafted theory-based approaches.

- It started with observations and data capture and ended usually with a map as the final output.
- Using **qualitative** or **quantitative** methods, the data was collected, processed and analyzed, terminating in presenting the information derived, using various maps
- This model represents the methodological tools of the **traditional** paradigm of Geography.

# Past: The Traditional Model

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# Present: Computer Technology Model

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- The increased use of microprocessors altered the traditional model creating a new one based on **computer technology**.
- Geographers had to be in the information business (or no business at all) and all their tasks in the field, the lab or the office had to be accomplished by utilizing **informatics**.
- This resulted in the emergence of a new computational geography in the context of a world of computers and cybernetic thinking. Geographers had to cope with data-driven and computer-based, knowledge-creating technologies.

# Present: Computer Technology Model

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## **DATA PROCESSING AND MANIPULATION**

It has changed the ways data is captured and processed. The outcome of this stage is digital layers of diverse land-related or human activities data.

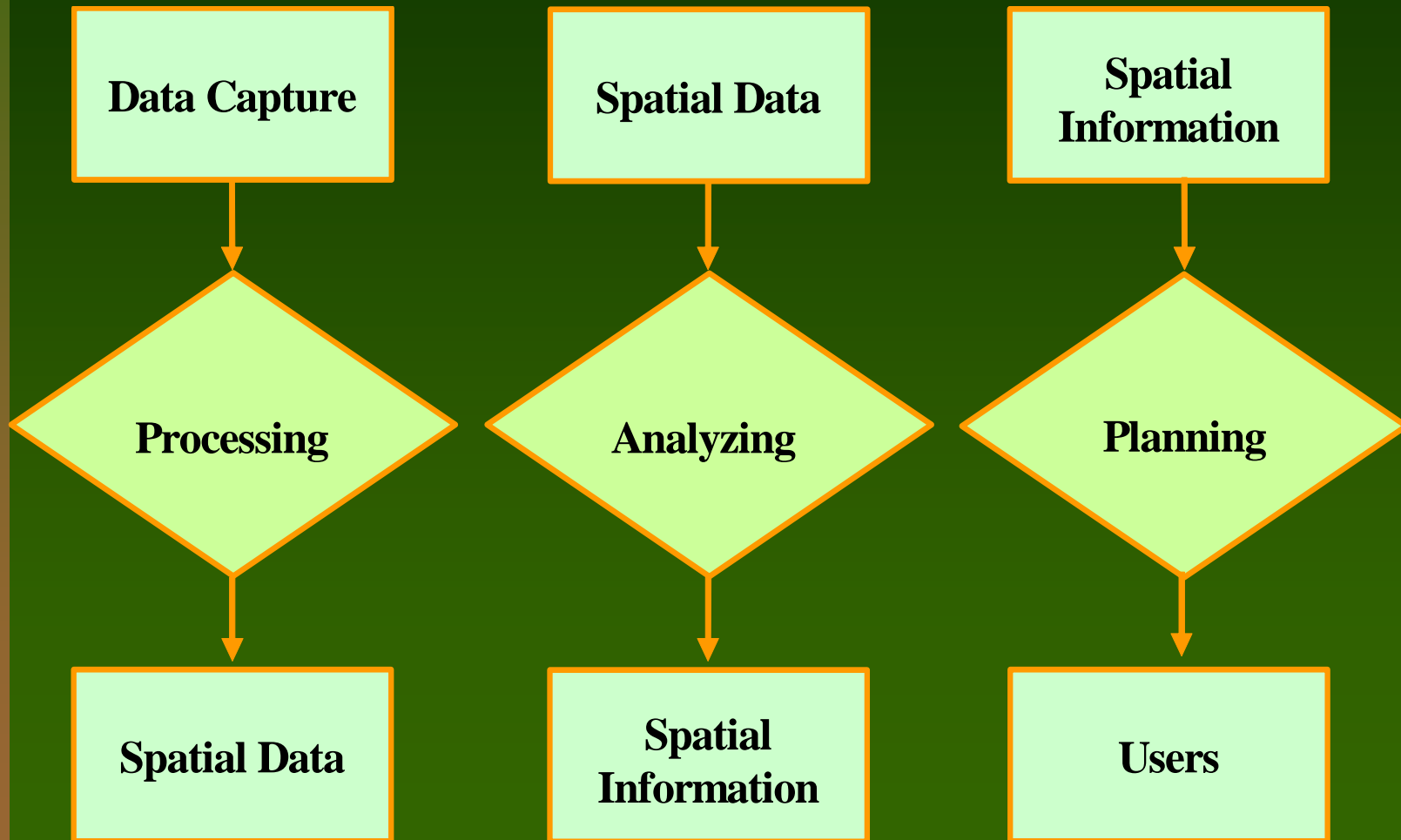
## **SPATIAL ANALYSIS**

The process from spatial data to spatial information is possible, almost exclusively, through the use of CT.

## **INFORMATION MANAGEMENT AND PLANNING**

The task of effective management of spatial information requires acceptable tools for decision making.

# Present: Computer Technology Model



# Future: Integration model

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- The three approaches of the computer technology model are considered as independent and conflicting endeavours.
- Such an approach is clearly scientifically shallow, logically unsound and mainly lacking in the necessary **integration**.
- *The techniques in the computer technology model.*
  - *Can be considered as information systems, but they are not exclusively utilized as such.*
  - *The same is true in terms of their application as analytic or planning tools. Clearly, they are involved in planning but are not only planning tools.*
  - *They are spatial analysis methods, but they are not only that.*

# Future: Integration Model

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It has been shown that the three approaches having a common background -the spatial dimension- they are:

- *Closely interrelated*
- *Complementary*
- *Separate components of an integrated spatial approach*



*They should be considered as components of an integrated spatial approach*



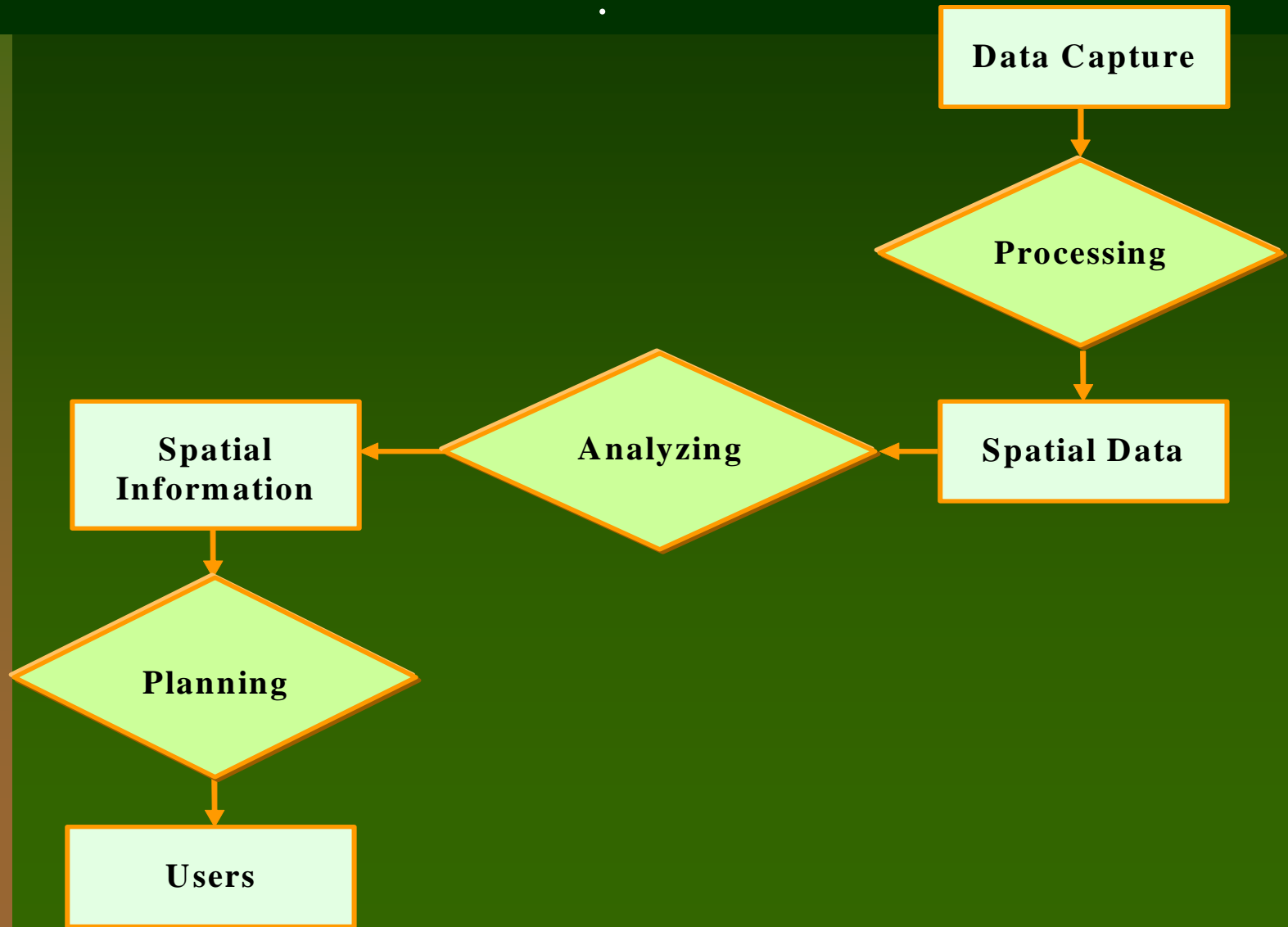
# Future: Integration Model

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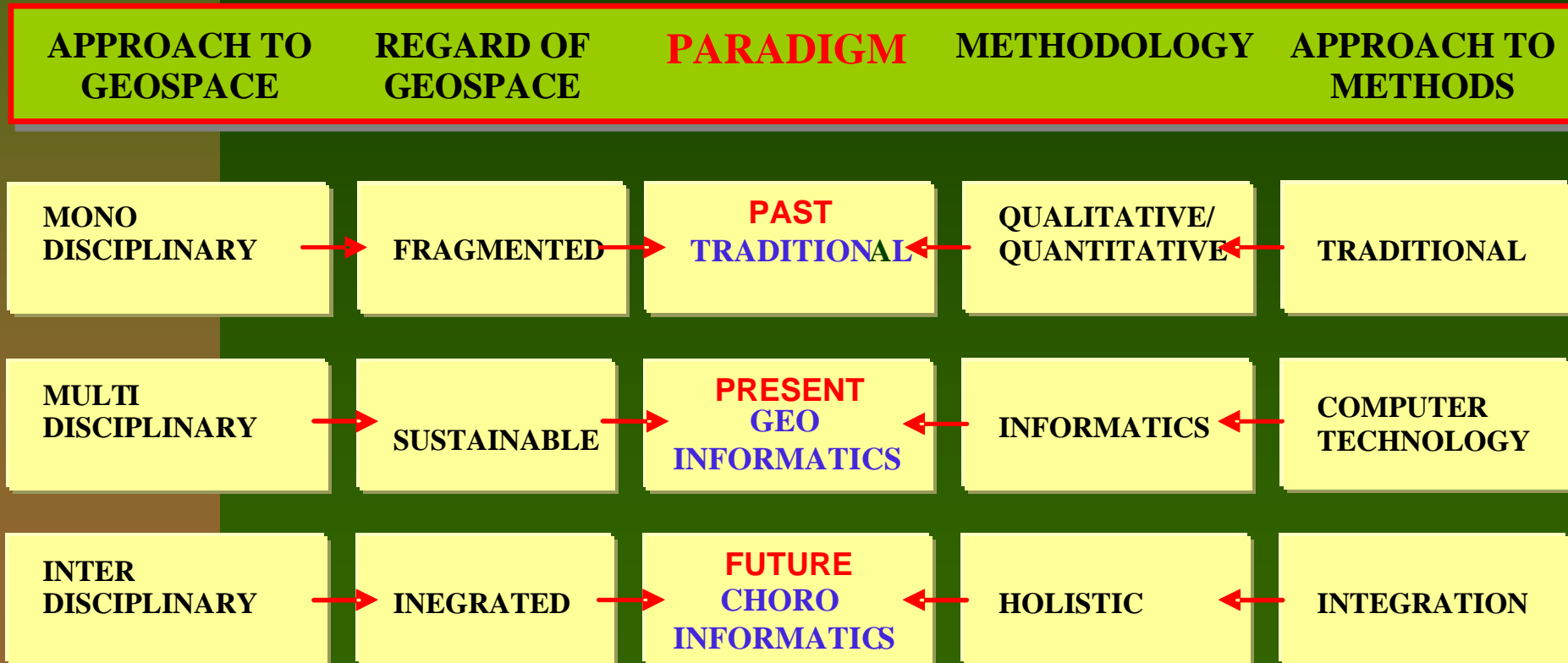
This dialectic model, by emphasizing a holistic view of Geography will:

- Be broader than data or informatics.
- Be open rather than closed.
- Be able to accommodate pluralistic research styles.
- Offers no restrictions on subject matter or approach.

# Future: Integration Model



# THE FUTURE OF GEOGRAPHY : A NEW PARADIGM



# The Future:Choroinformatics

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- Are based on two pillars- **interdisciplinarity** and **integration**- embedded in a foundation of informatics.
- Can be defined as the process of answering spatial questions, solving regional problems, or addressing geographic topics which can not be dealt with adequately by a simple independent mono or multidiscipline approach.
- Draw on various perspectives that express multidimensional relations and interdependencies of the elements that constitute or represent specific entities or parts of the problem, topic, or question under consideration.
- Is not a simple supplement, but is corrective of the present geoinformatics paradigm.

# The Role of the New Paradigm

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The role that our discipline can play in the realms of sciences and society, if we move towards the new paradigm is:

- In a scientific community, where every discipline has raised defensive boundaries to defend its purity and importance, Geography can offer an interdisciplinary base which can be used to address the integrated issues of our community.
- In a society that continuously demands increasing speciality, the science of Geography can offer the necessary integration, which is the only way to solve its problems.