

THE CUBAN GEOLOGICAL MAPPING, A CHALLENGE FOR THE FUTURE

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Content

Location

History of Cuban Geological Mapping

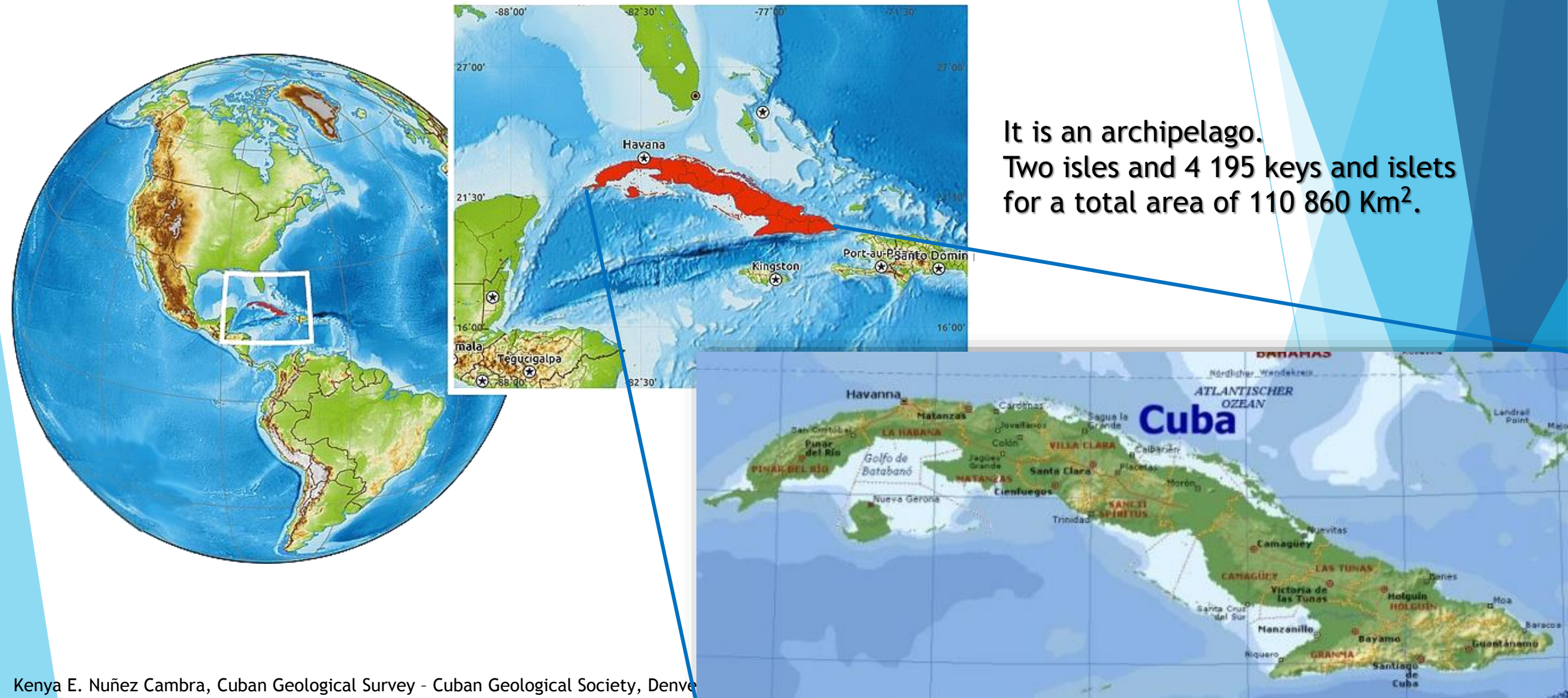
- Second half of the XIX Century
- First half of the XX Century
- Second half of the XX Century
- XXI Century

Task for the future

• Location

The Republic of Cuba is at the entrance to the Gulf of Mexico in the Northwestern of the Caribbean Sea

It is an archipelago.
Two isles and 4 195 keys and islets
for a total area of 110 860 Km².



- Second half of the XIX Century

Map of Cuban territory,
Madrid 1866
1:2 000 000



The first in Latin America



Geological sketch of Cuban
1:1 000 000, published by
Manuel Fernández de Castro
and Pedro Salterain Legarra in 1869

Geological Map of Cuba,
Ramon Adan de Yarza
1895

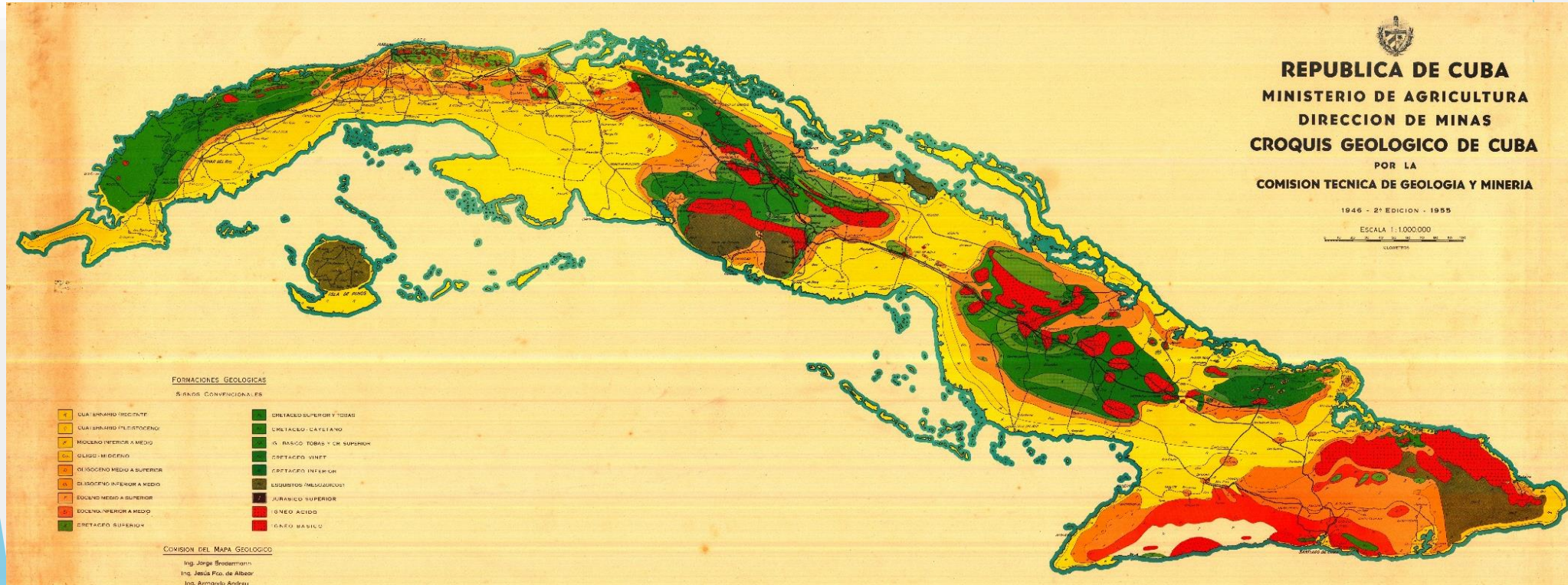
Geological Sketch of Cuba

scale 1:1 000 000

1946 - 1955

- **First half of the XX Century**

Report of geological Reconnaissance of Cuba, C.W. Hayes, T.W. Vaughan and B.C. Spencer



Geology and Mine Technical Commition

Mine Dirección

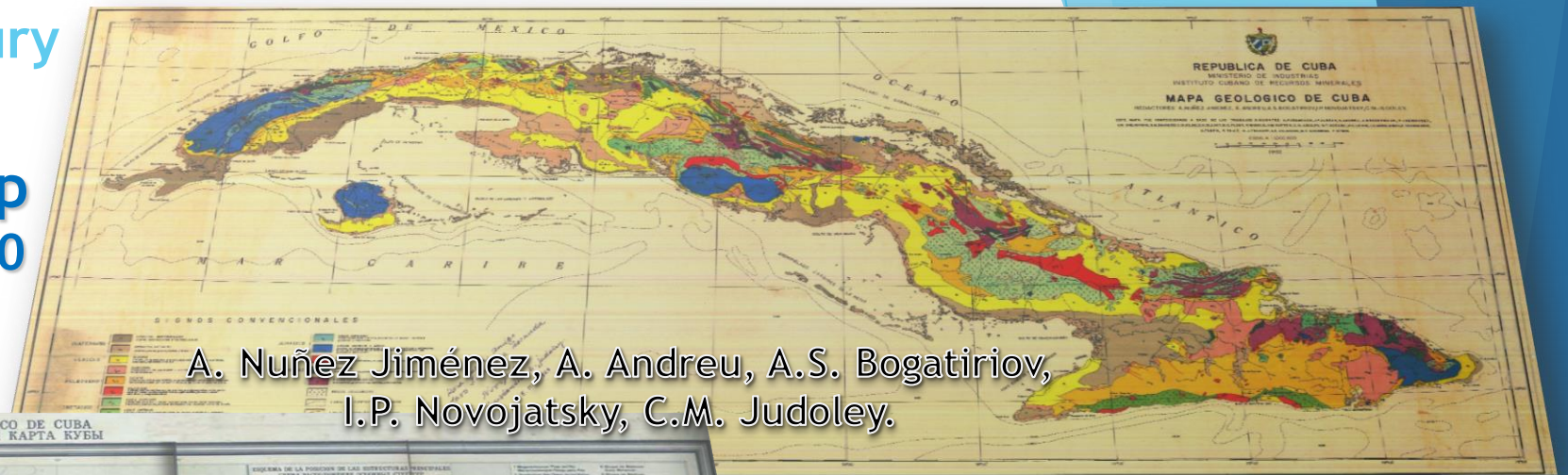
Agriculture Ministry

Jorge Brödermann, Jesus Francisco de Albear and Armando Andrew

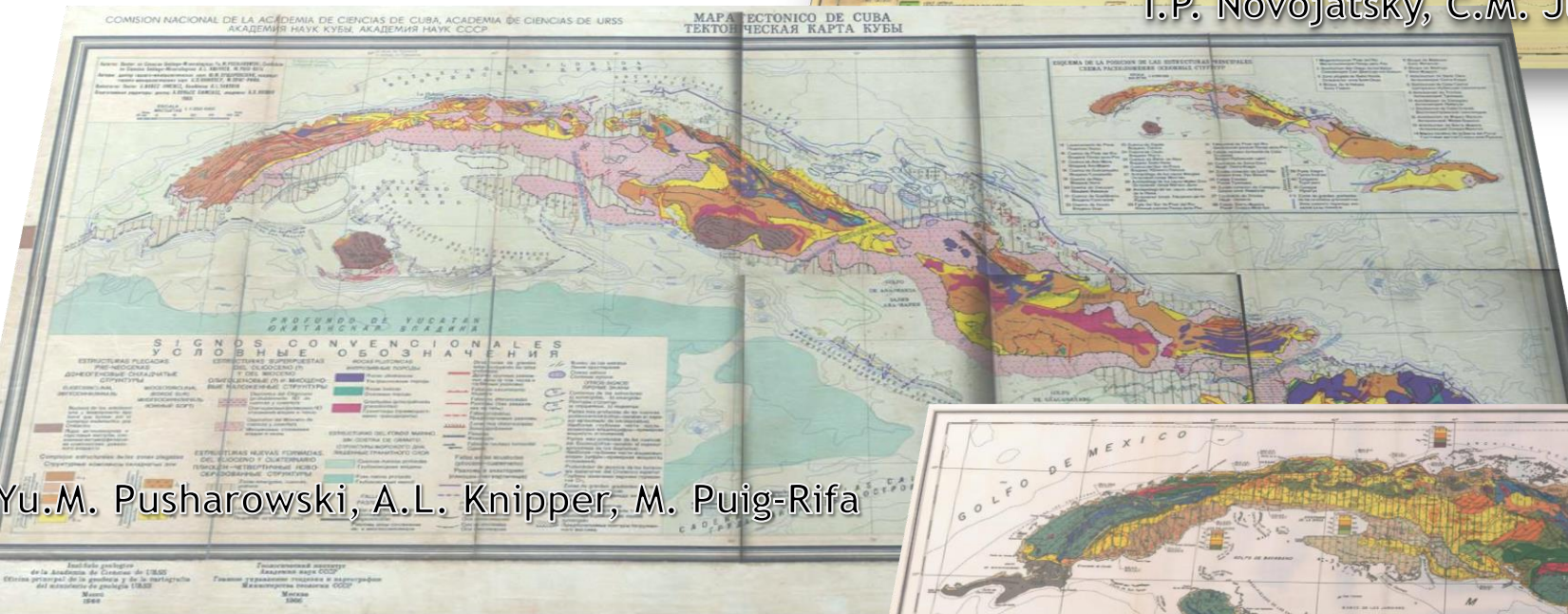
Geological, mine and others local thematic sketch by Antonio Calvache Dorado, Jorge Brödermann, Armando Andrew, Pedro J. Bermúdez, scale 1:1 000 000.

- Second half of the XX Century

Geological Map scale 1:1 000 000 1962



Tectonic Map scale 1:1000 000 1965



Hidrogeological Map scale 1:1000 000 1965

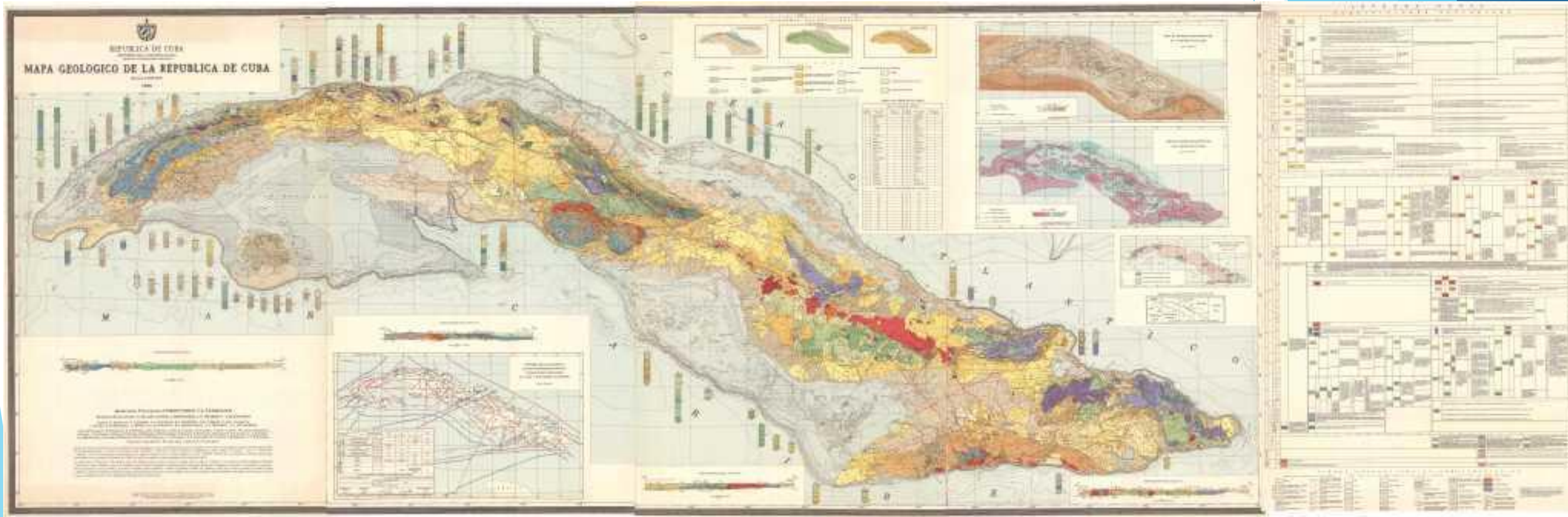


- Second half of the XX Century

Geological Map of Cuba

scale 1:500 000

1985



Geology Investigation Center (CIG)
E. Linares Cala, A.V Dovbnia, et al.

- **Second half of the XX Century**



- Second half of the XX Century

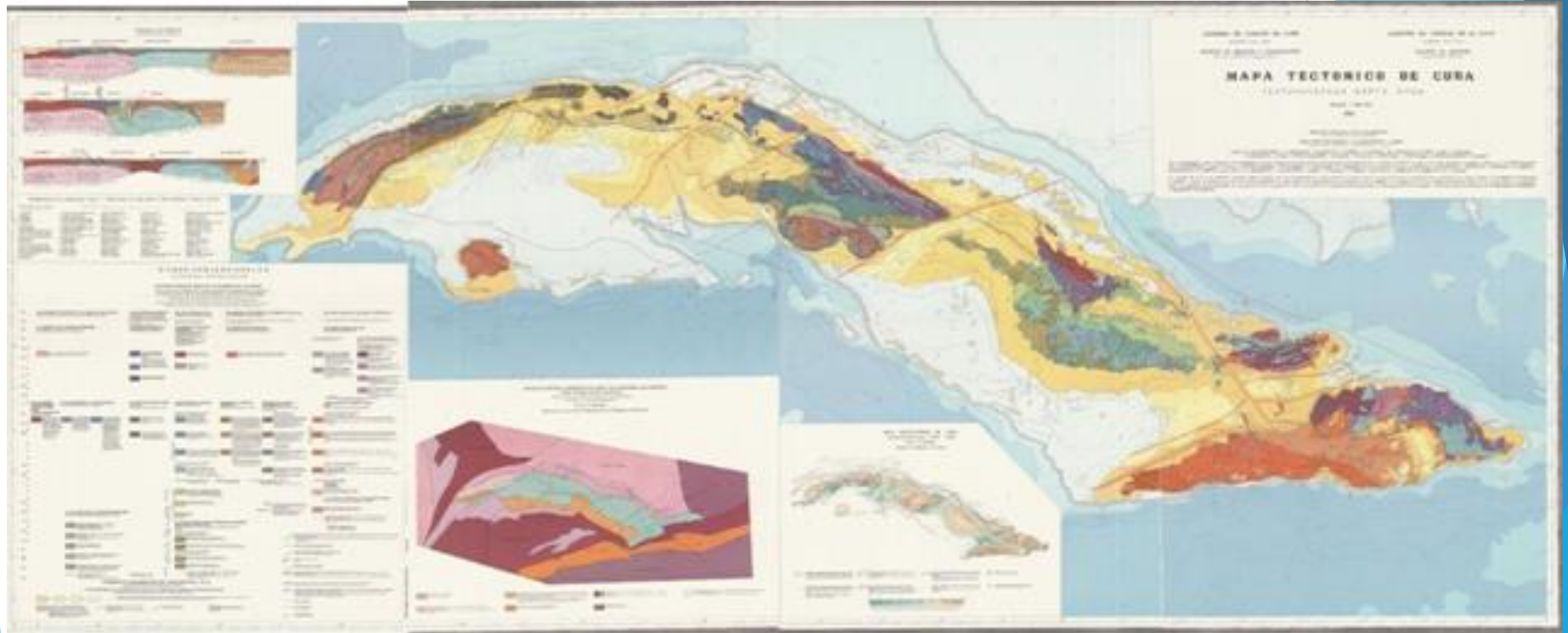


Tectonic Map of Cuba

scale 1:500 000

1989

- Second half of the XX Century



Sciences Academies of USSR and Cuba

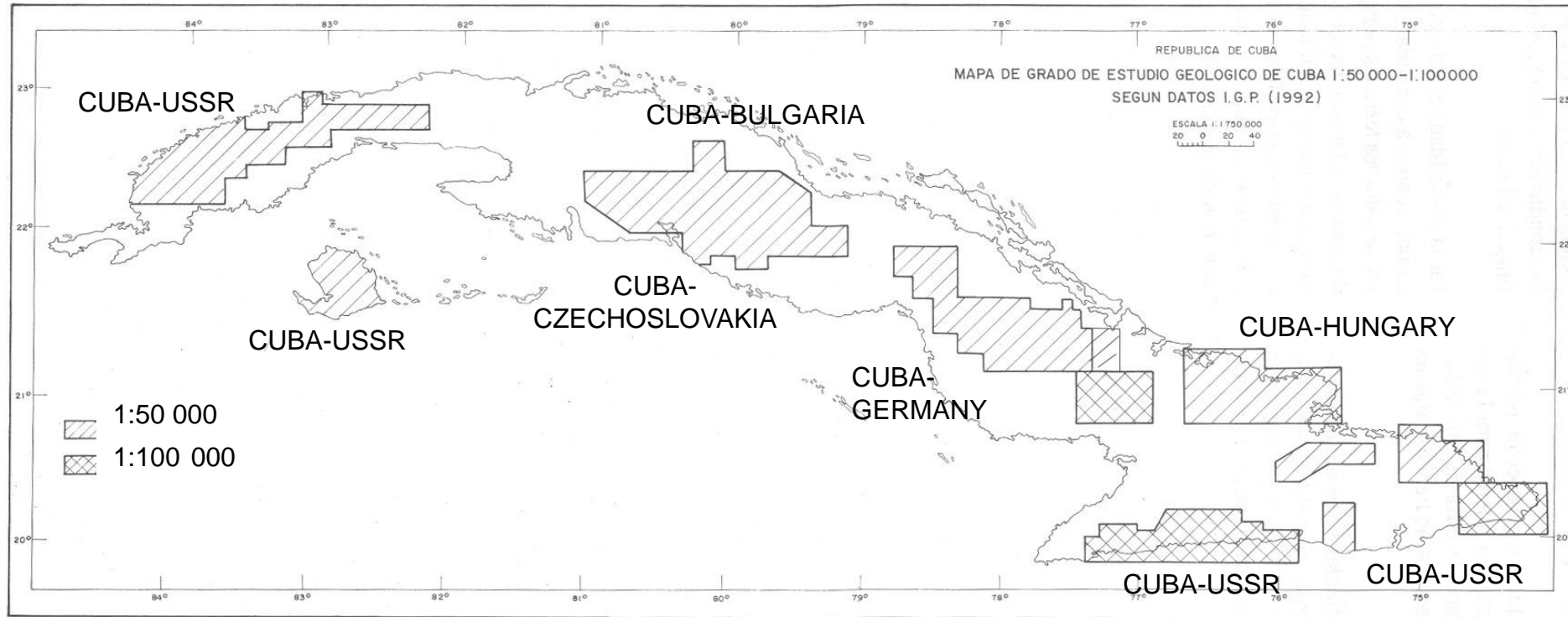
Pushcharovsky, Yu., Mossakovsky, A., Nekrasov, G., Sokolov, S., M. Iturralde-Vinent, *et al.*

- Second half of the XX Century

Complex Geological Mapping

escala 1:100 000 + 1: 50 000

1981-1994

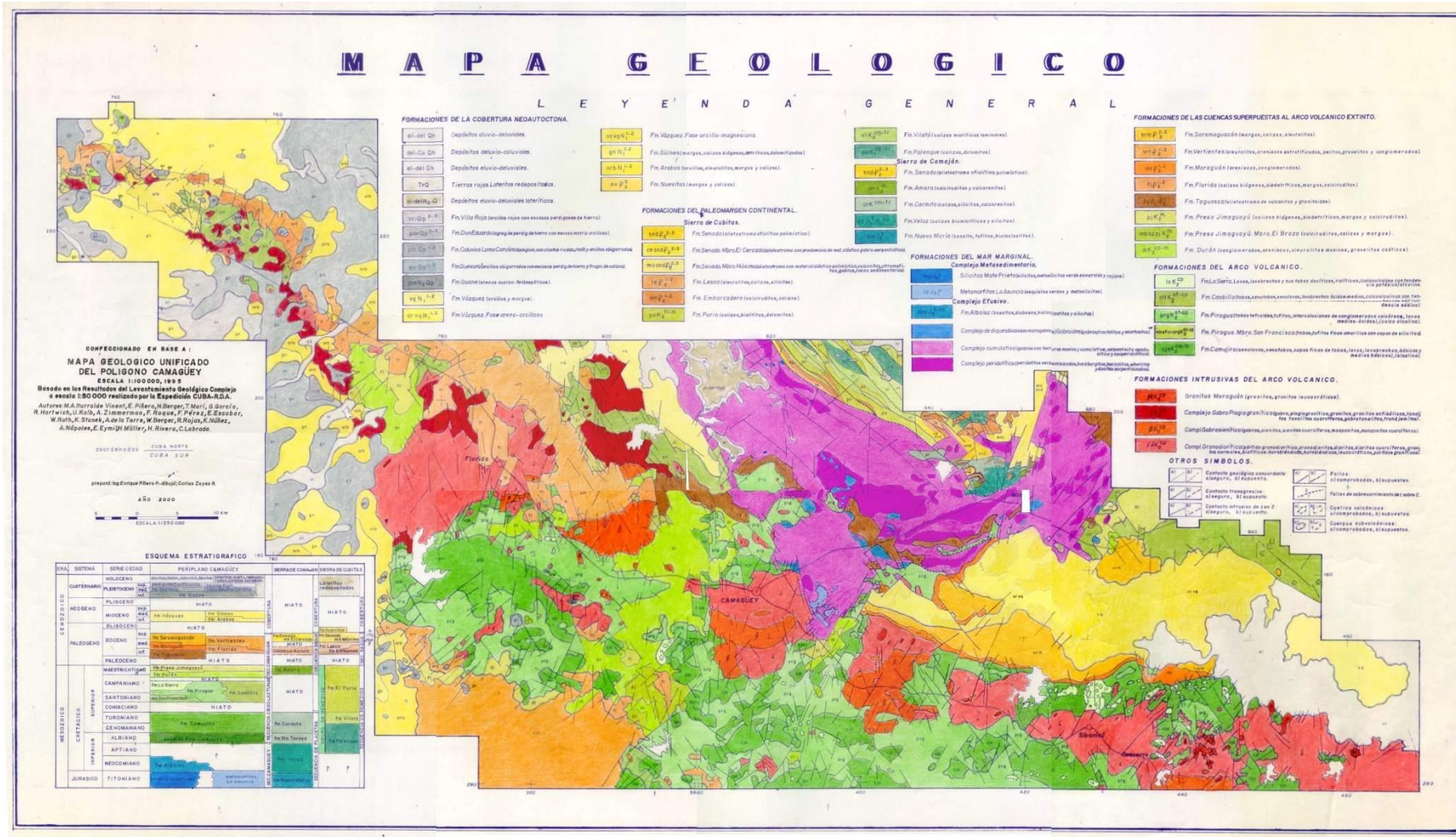


Only inside perspective areas of the country for localization and exploration of mineral resources. Applying geophysical and geochemical field methods in cooperation with the geological surveys of USSR, Germany, Hungary, Czechoslovakia and Bulgaria

1986-1989

- Second half of the XX Century

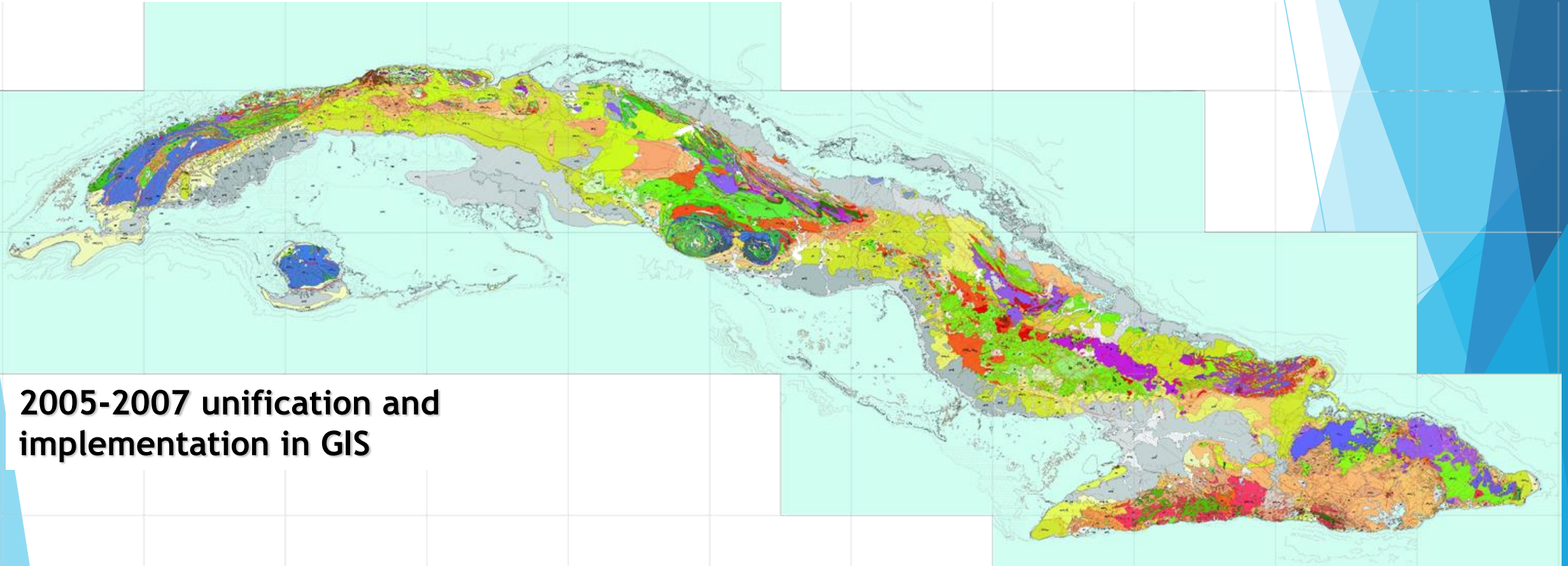
1:50 000 scale cartography covers only slightly more than 38 % of the Cuban territory



Synthesis and compilation work
scale 1:100 000
1994 - 2005

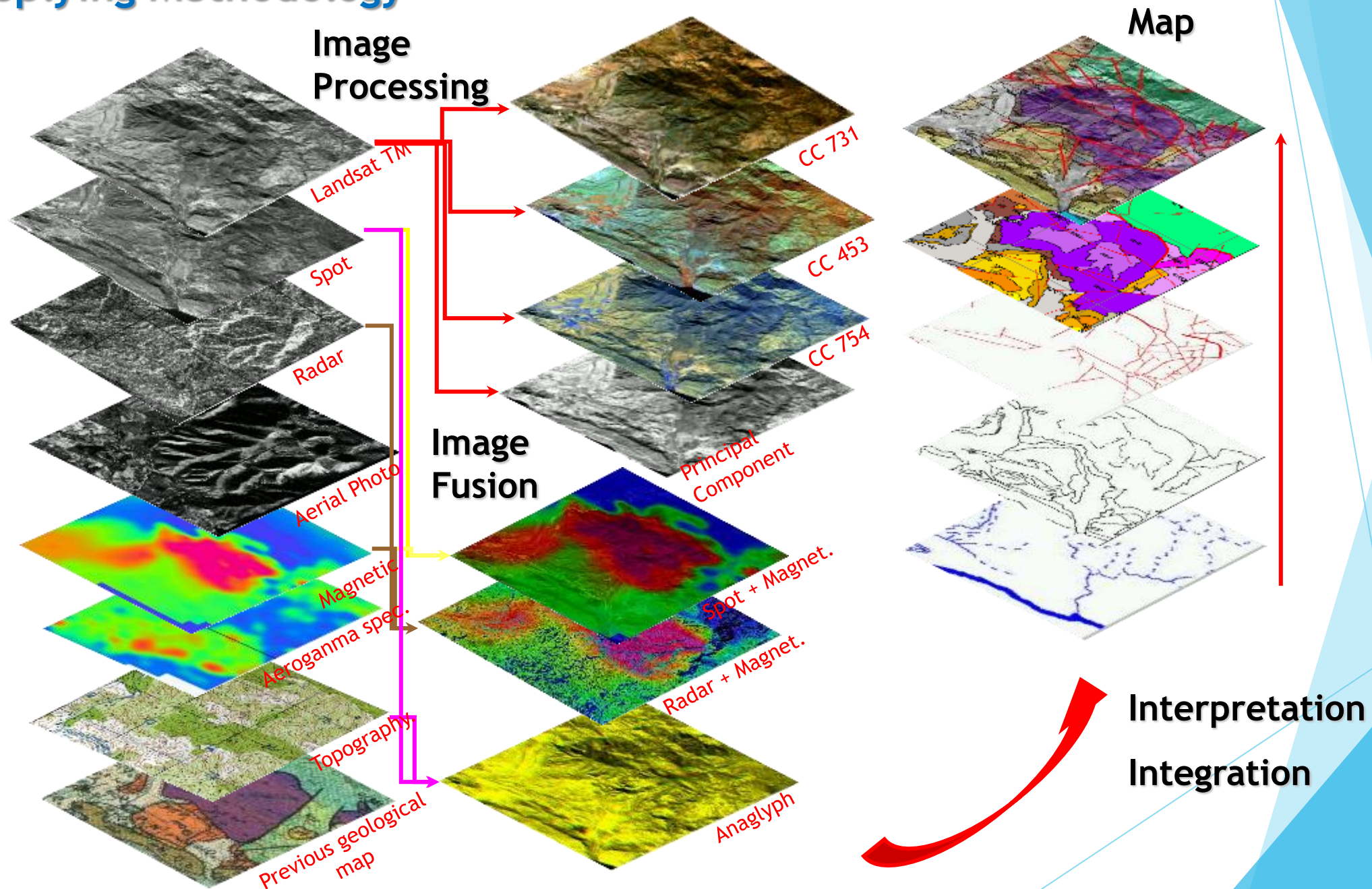
- XXI Century

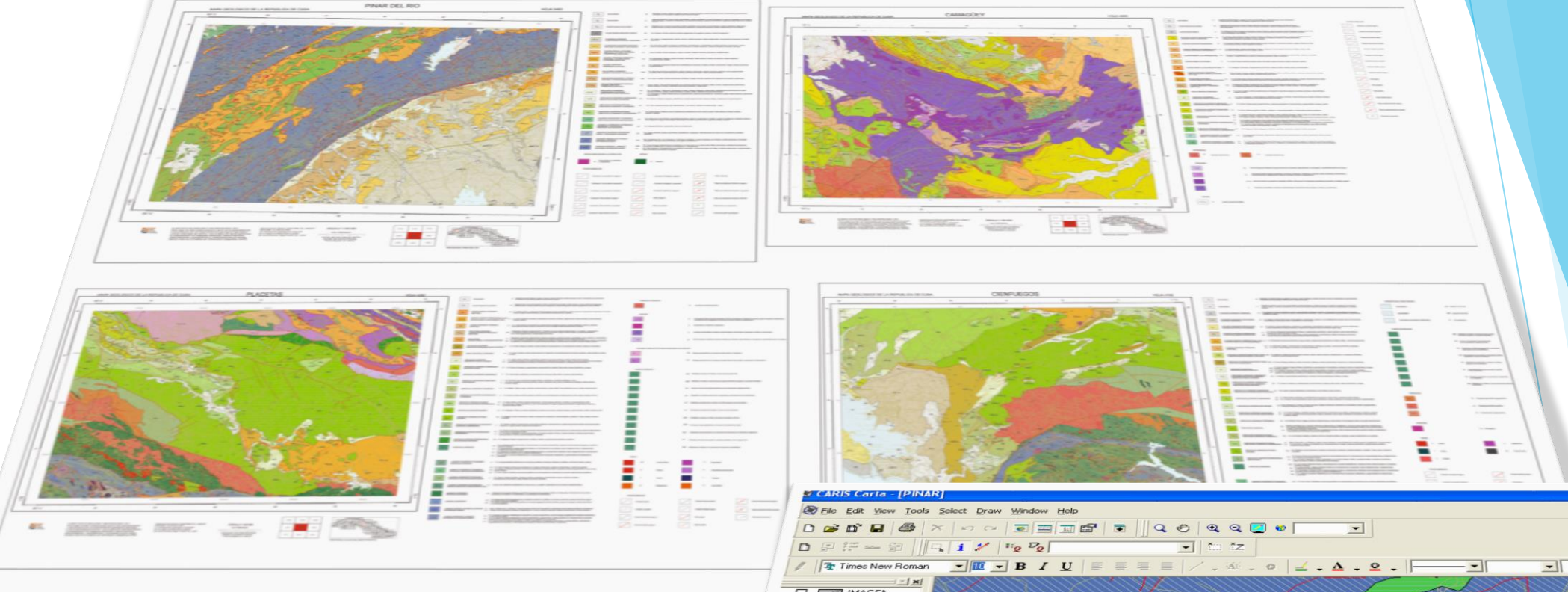
Digital Geological Map of Cuban Republic
scale 1:100 000



**2005-2007 unification and
implementation in GIS**

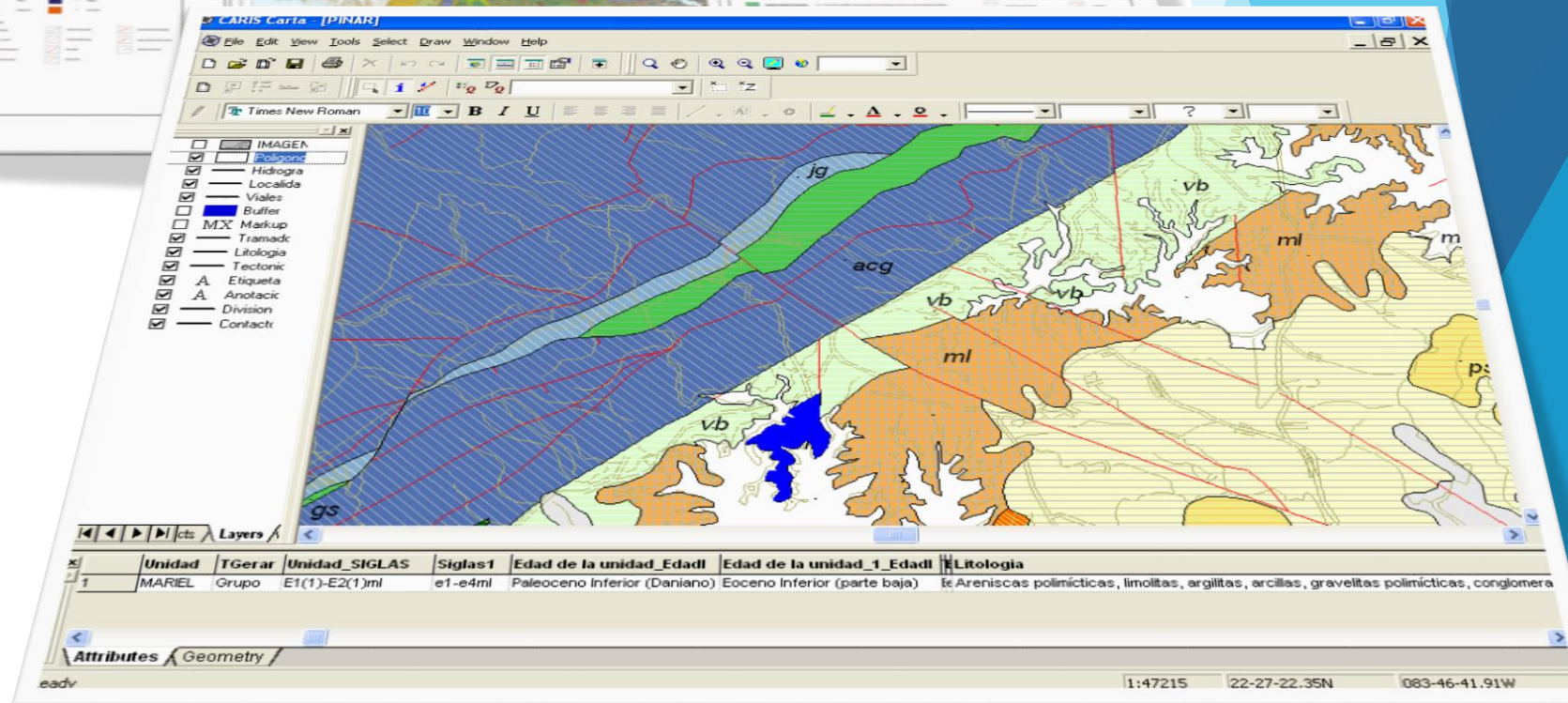
Applying Methodology

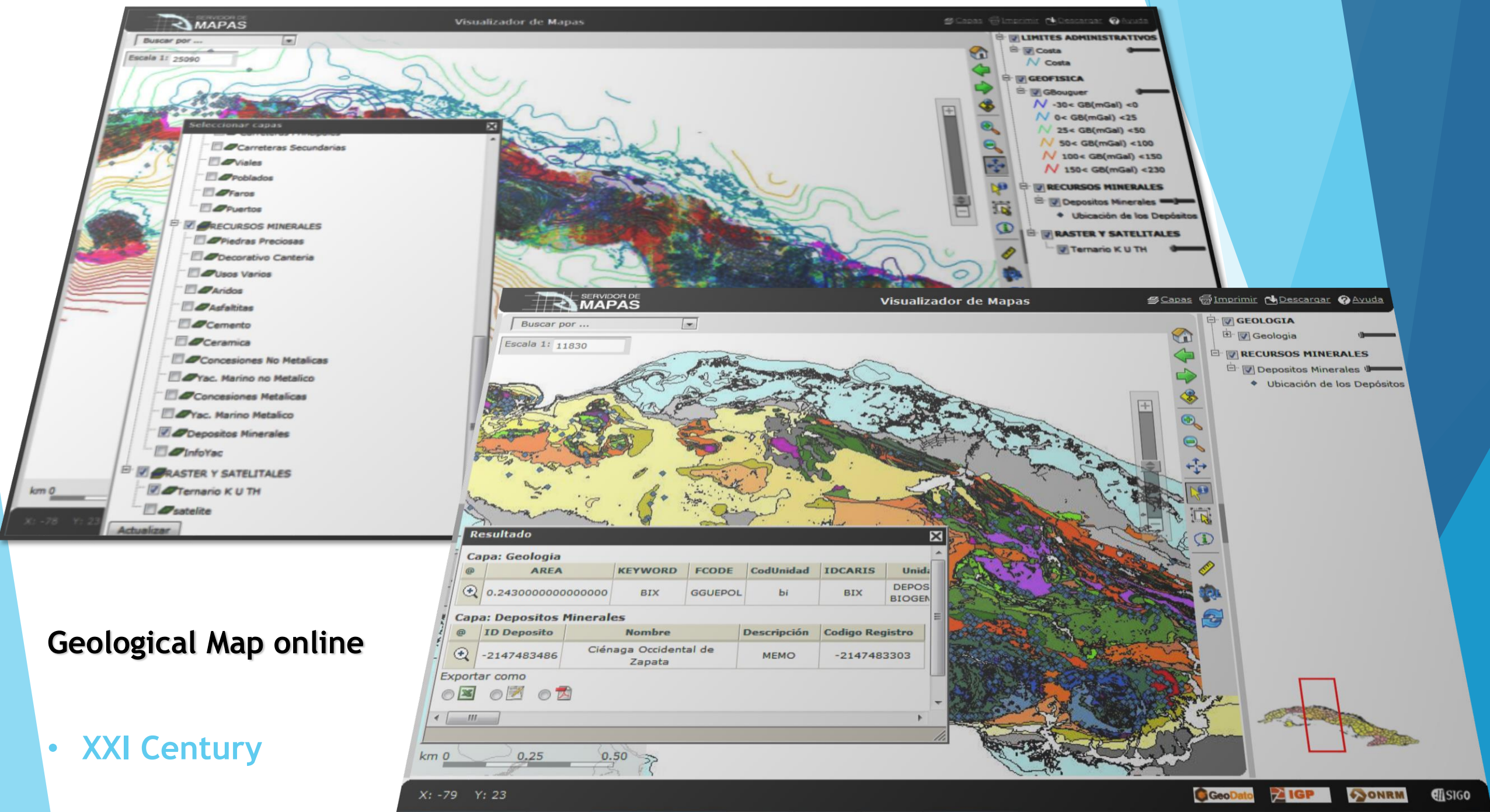




Geological Map in GIS

- XXI Century



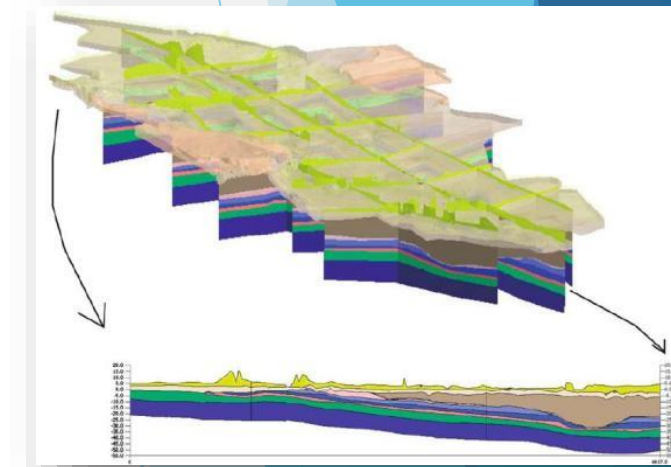


Geological Map online

- XXI Century

Tasks for the next future

- ▶ Complete the geological mapping scale 1:50 000, for 100% of the land and marine areas (2017-2030),
- ▶ Update the thematic maps (tectonic, geophysics, metallic and industrial minerals, active processes, etc.
- ▶ Contribute to OneGeology (1:1 000 000),
- ▶ Prepare GIS products,
- ▶ Elaborate 3D maps for specific regions,
- ▶ We are open to cooperation with research institutions and government agencies worldwide.





GEOCIENCIAS 2017

3 al 7 de abril, La Habana, Cuba

VII Earth Sciences Convention
April 3-7, 2017, Havana, Cuba
www.cubacienciasdelatierra.com

Muchas gracias!!

