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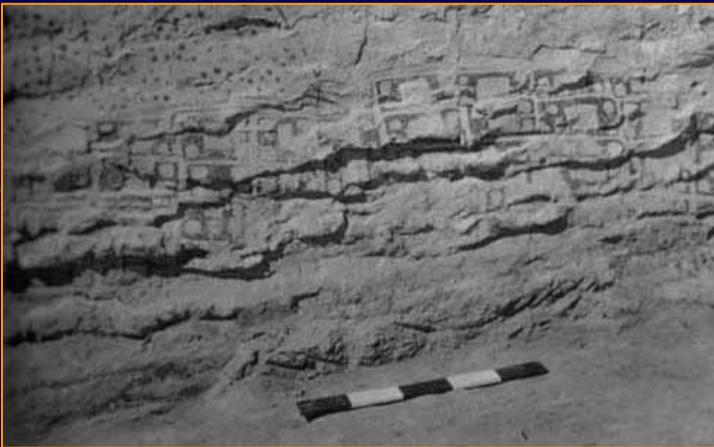
Los mapas geológicos de Venezuela: 1850-2006

Introducción:

Mapas mentales,
representaciones del espacio,
etc.



Plano del pueblo de Catal Hyük (6200 A.C.)



Juan de la Cosa, 1500



Universalis Cosmographia...

Martin Waldseemüller. 1507.

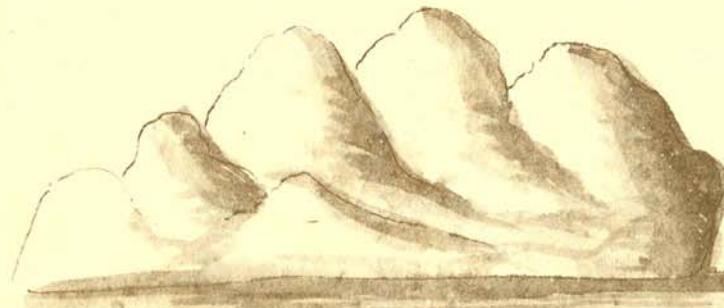


Primera aparición del nombre de América

De las sierras.

Cabo de Codera entierra Firme

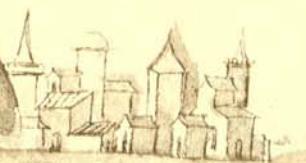
Estas sierras están la tierra adentro



Sierras de Caracas



Burburuata.



Cabo de codera.



Entre estas islas y la tierra,

surgue

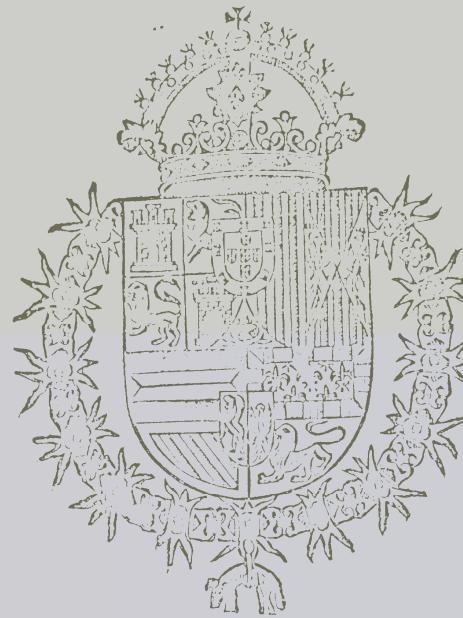


1592 años

Primera publicación geológico-minera de Venezuela

1621

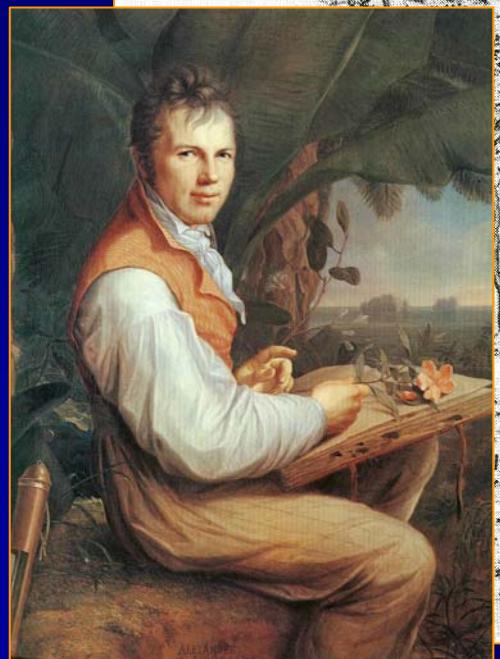
**Manuel
Gaytán de
Torres**



RELACION,
Y

VISTA DE OIOS QVE
Don Manuel Gaytan de Torres Venti-
quatro de la ciudad de Xerez, haze a su
Magestad en el Real Consejo de las In-
dias , por comission que para ello tuuo de
las Minas de cobre que ay en las Se-
rranias de Cocorote, prouincia
de Venezuela.

Año 1621.

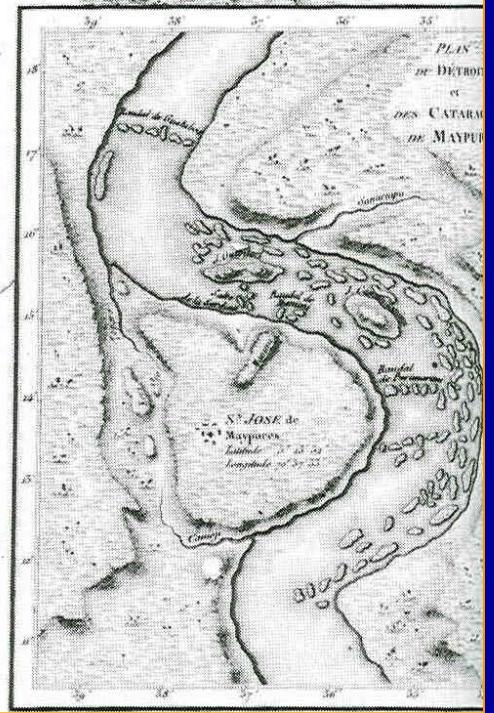




* 1799-1800 *

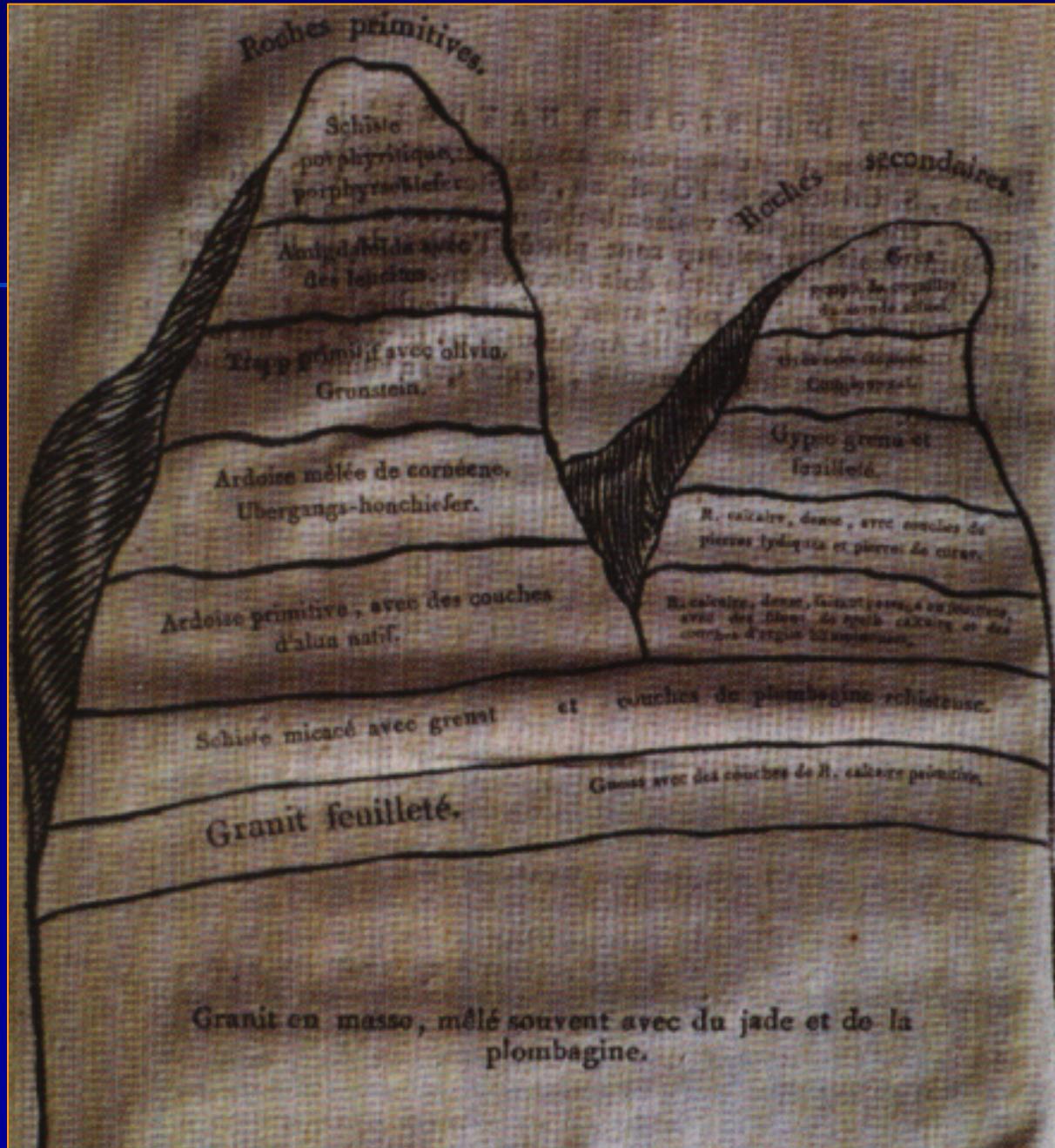
Alexander von Humboldt

(1769-1859)

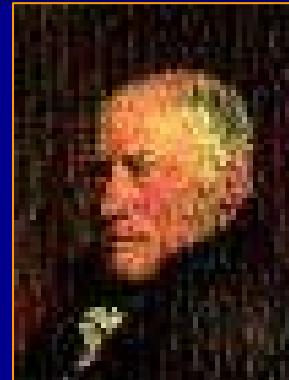


1801
Humboldt

Primera
“columna
estratigrafica”
de Venezuela
(Guayana –
Cordillera de
la Costa)



1815
William Smith
(1769-1839)



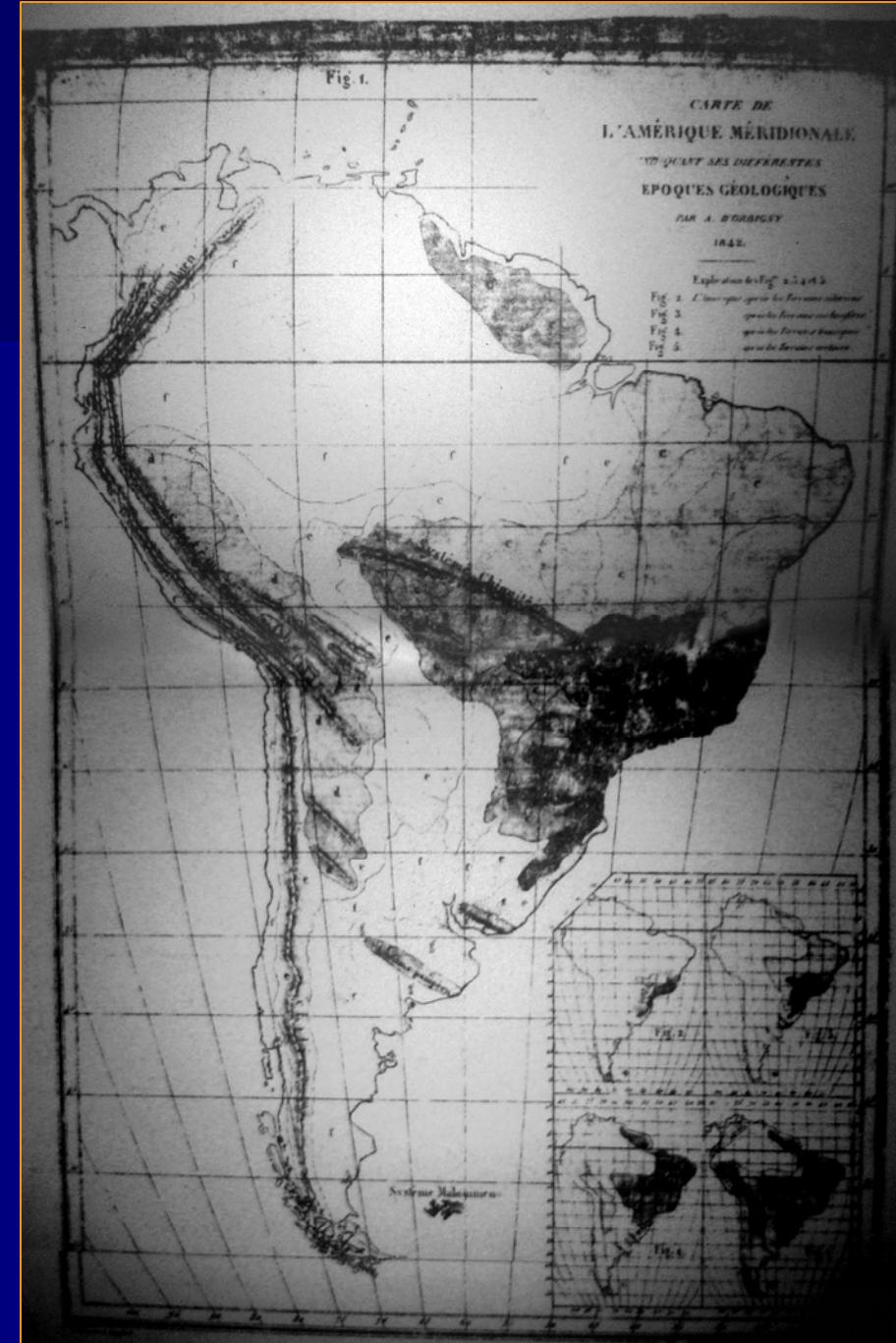
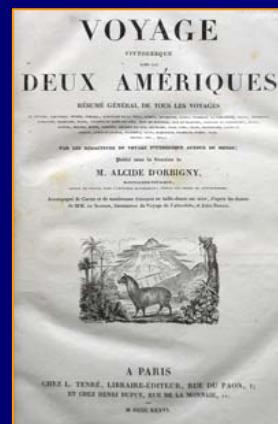
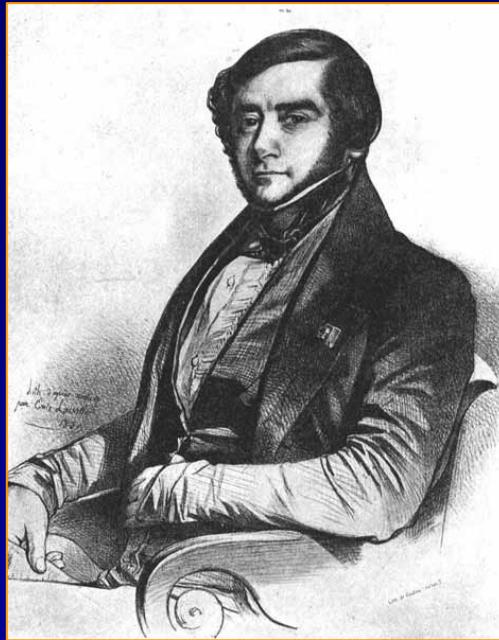
Primer mapa geológico
“El mapa que cambio el mundo”

15 hojas de 0,5 x 0,5 m
Mosaico de 2,5 x 1,5 m

1842

Alcide d'Orbigny (1802-1857)

Primer mapa geológico de América del Sur

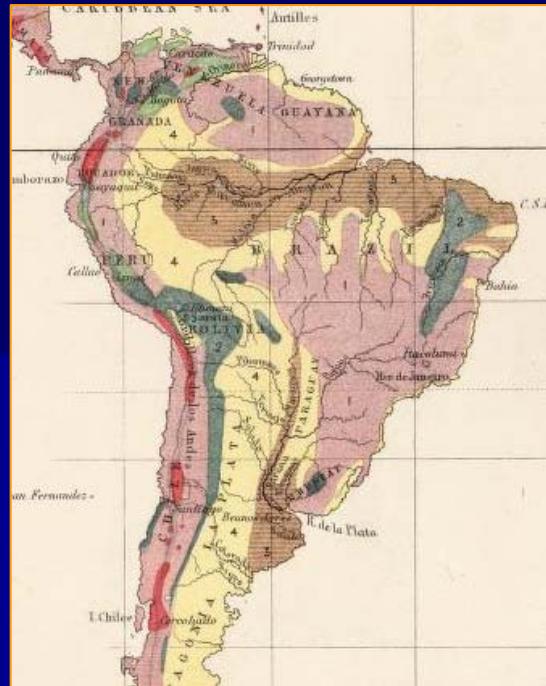
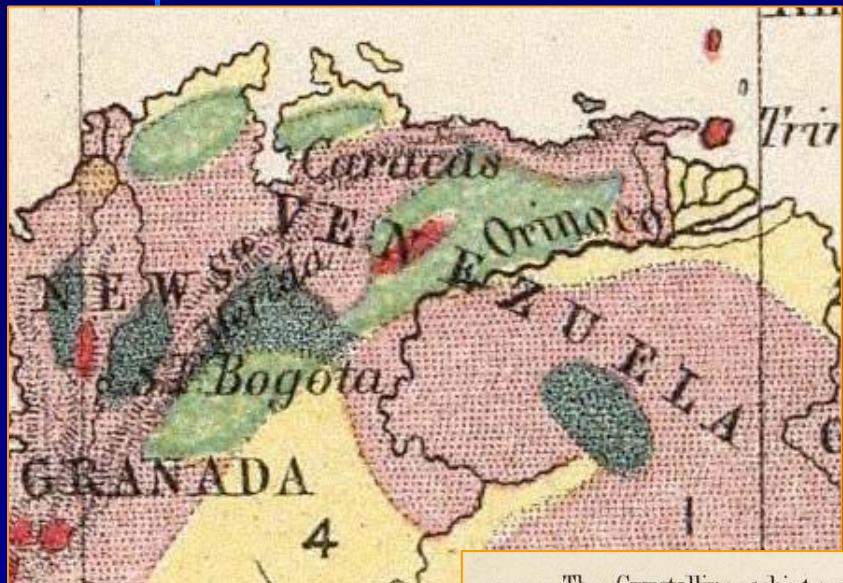


Viaje 1826-1832

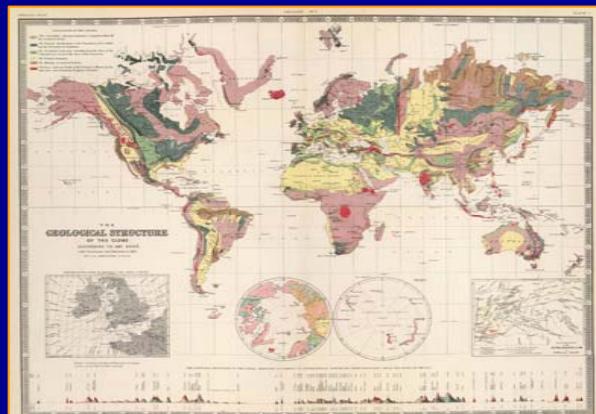
Fundador de la micropaleontología

1845 Ami Boué (1794-1881)
Essai d'une carte géologique du globe terrestre

1856 Actualizado por
A. K. Johnston (1804-1871)



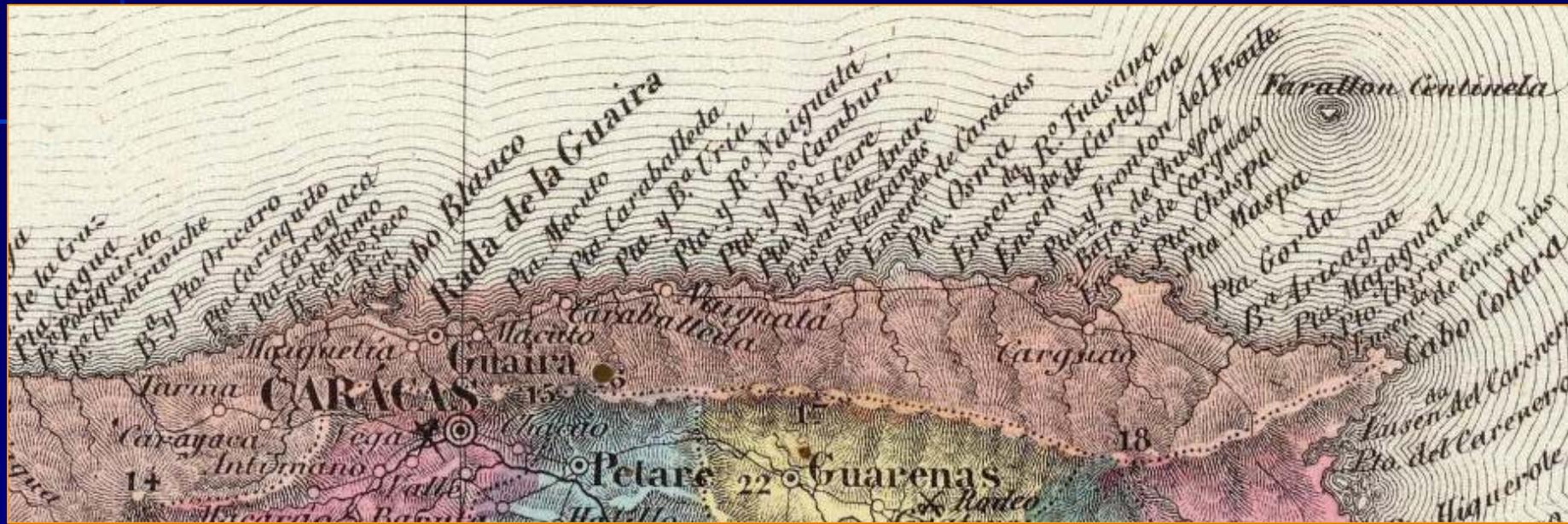
THE
GEOLOGICAL STRUCTURE
OF THE GLOBE
ACCORDING TO AMI BOUÉ,
with Corrections and Additions to 1855.
BY A. K. JOHNSTON, F.R.G.S.





1841

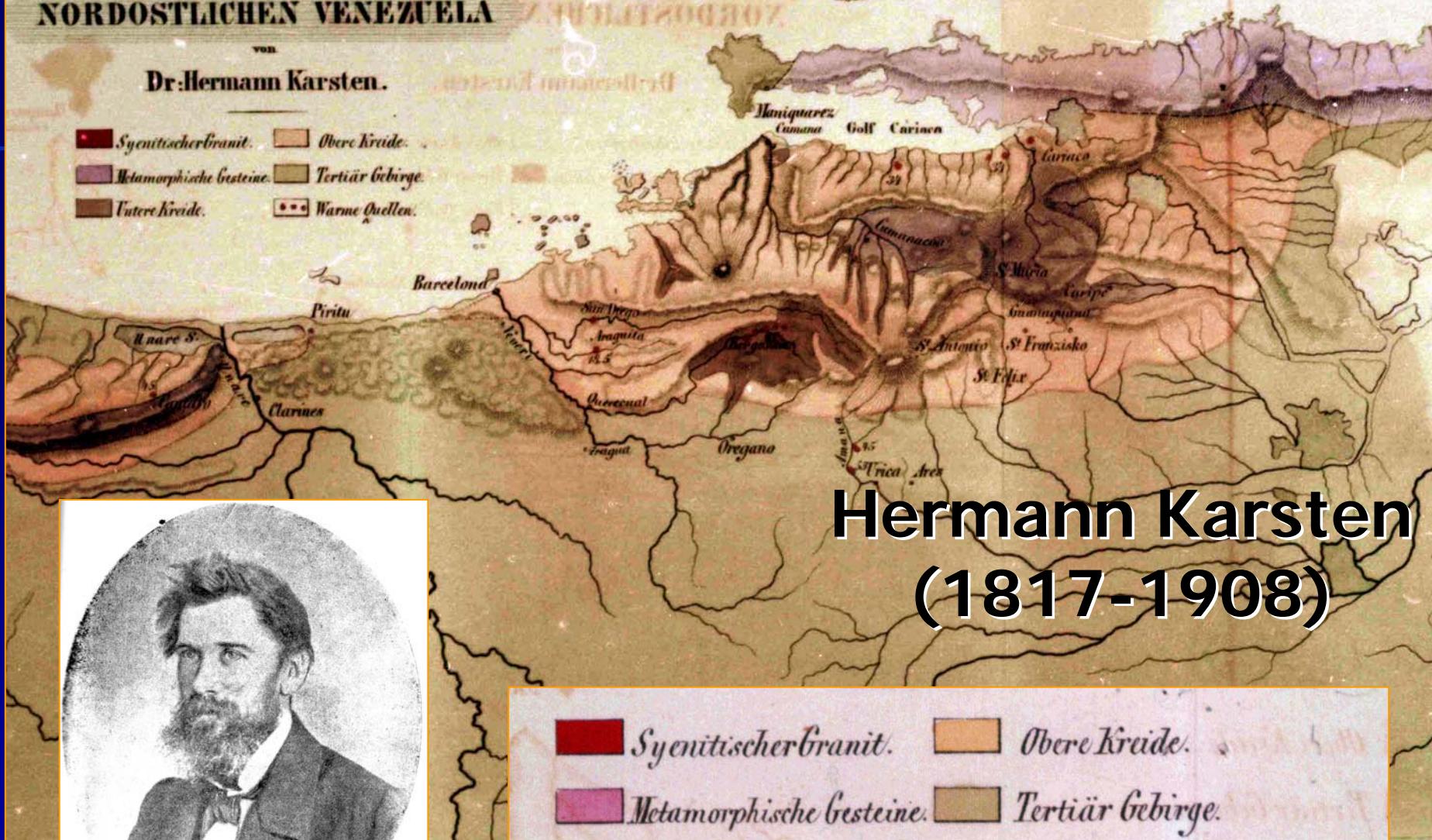
Agustín Codazzi (1793-1859)



* 1850 *

Geognostische Karte
des
NORDÖSTLICHEN VENEZUELA
von
Dr. Hermann Karsten.

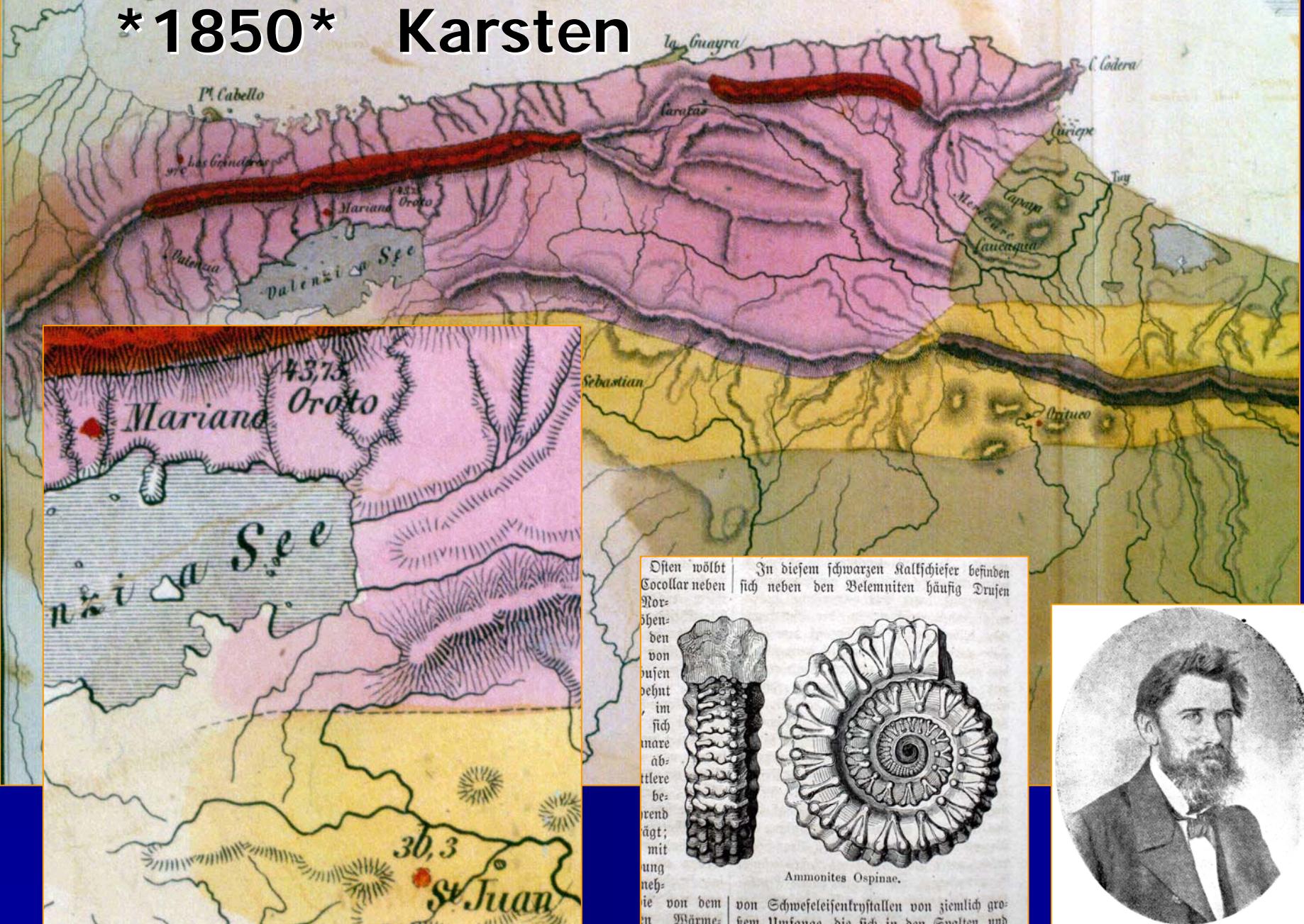
- Syenitischer Granit.
- Obere Kreide.
- Metamorphe Gesteine.
- Tertiär Gebirge.
- Untere Kreide.
- Warme Quellen.

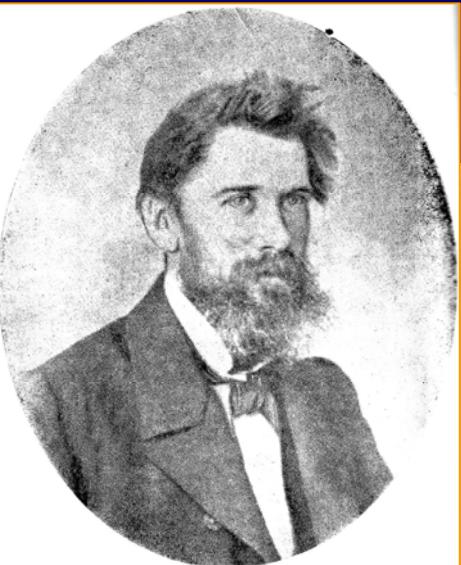


Hermann Karsten
(1817-1908)

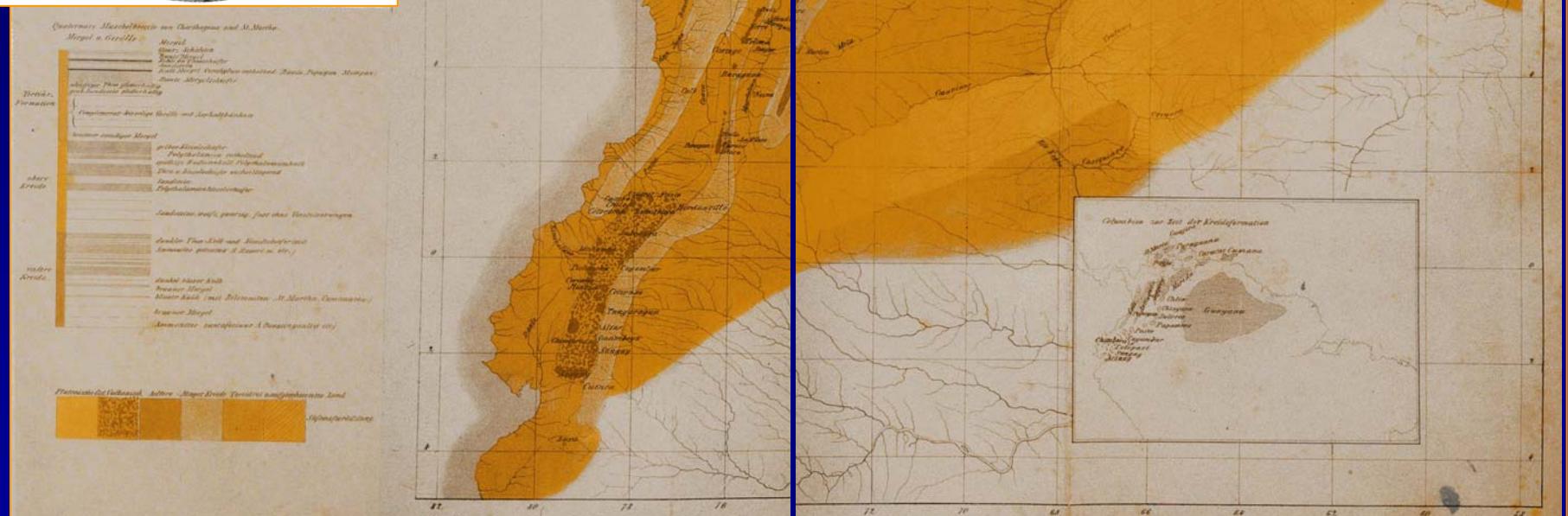
- Syenitischer Granit.
- Obere Kreide.
- Metamorphe Gesteine.
- Tertiär Gebirge.
- Untere Kreide.
- Warme Quellen.

1850 Karsten





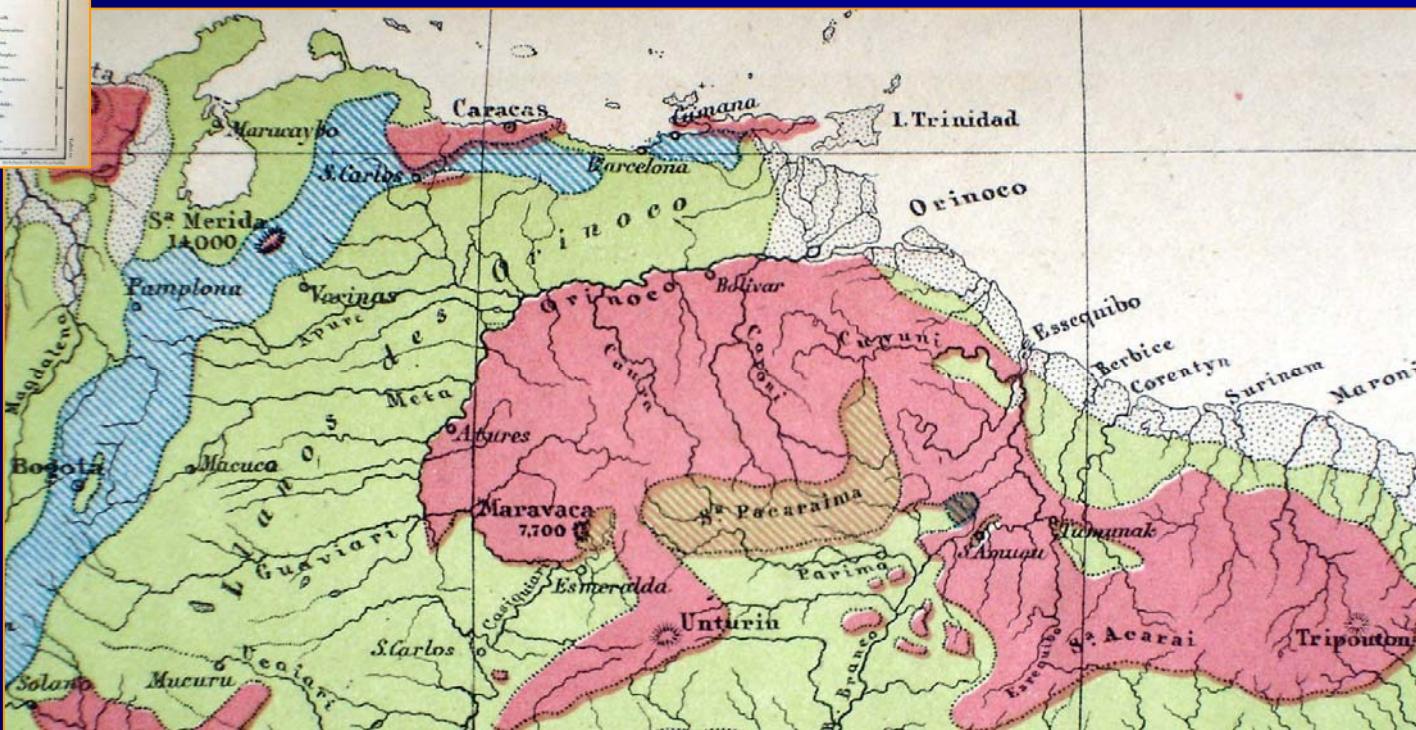
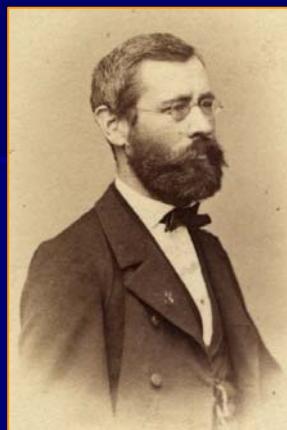
1856 Karsten

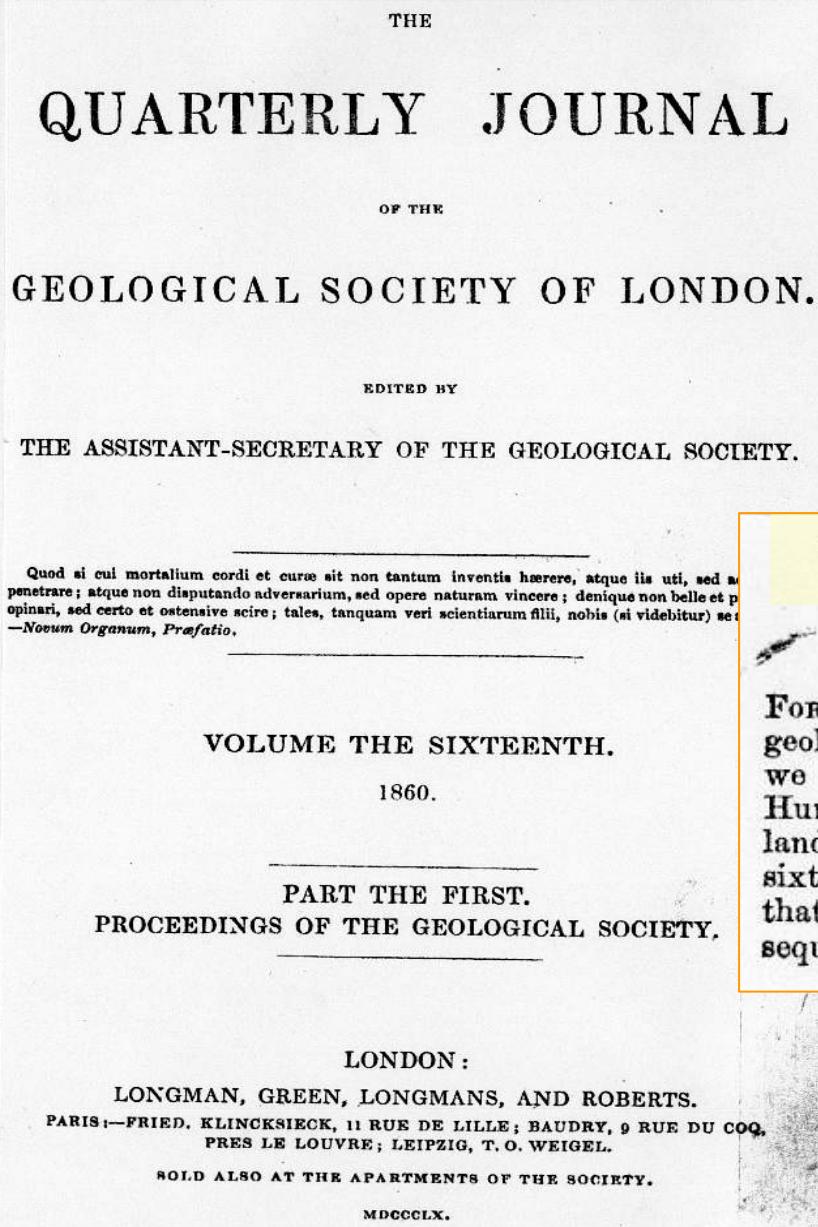


Die geognostischen Verhältnisse, Neu-Granada's. Viena
1:8.000.000

1856

Franz Foetterle (1823–1876)





1860

G. P. Wall

1. *On the GEOLOGY of a Part of VENEZUELA and of TRINIDAD.*
By G. P. WALL, Esq.

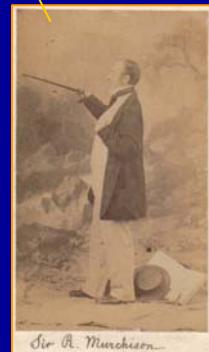
[Communicated by Sir R. I. Murchison, V.P.G.S.]

[Plate XXI.]

FOR our earliest distinct notions of the physical conformation and geological structure of this portion of the South American continent, we are indebted to the researches of that illustrious observer, Humboldt, who, on his visit to equinoctial America (1799), first landed on the coast of Venezuela, and prosecuted during a period of sixteen months a series of investigations in several departments of that State, thus rendering the most essential service to all subsequent travellers; for whilst some of his conclusions must be mo-

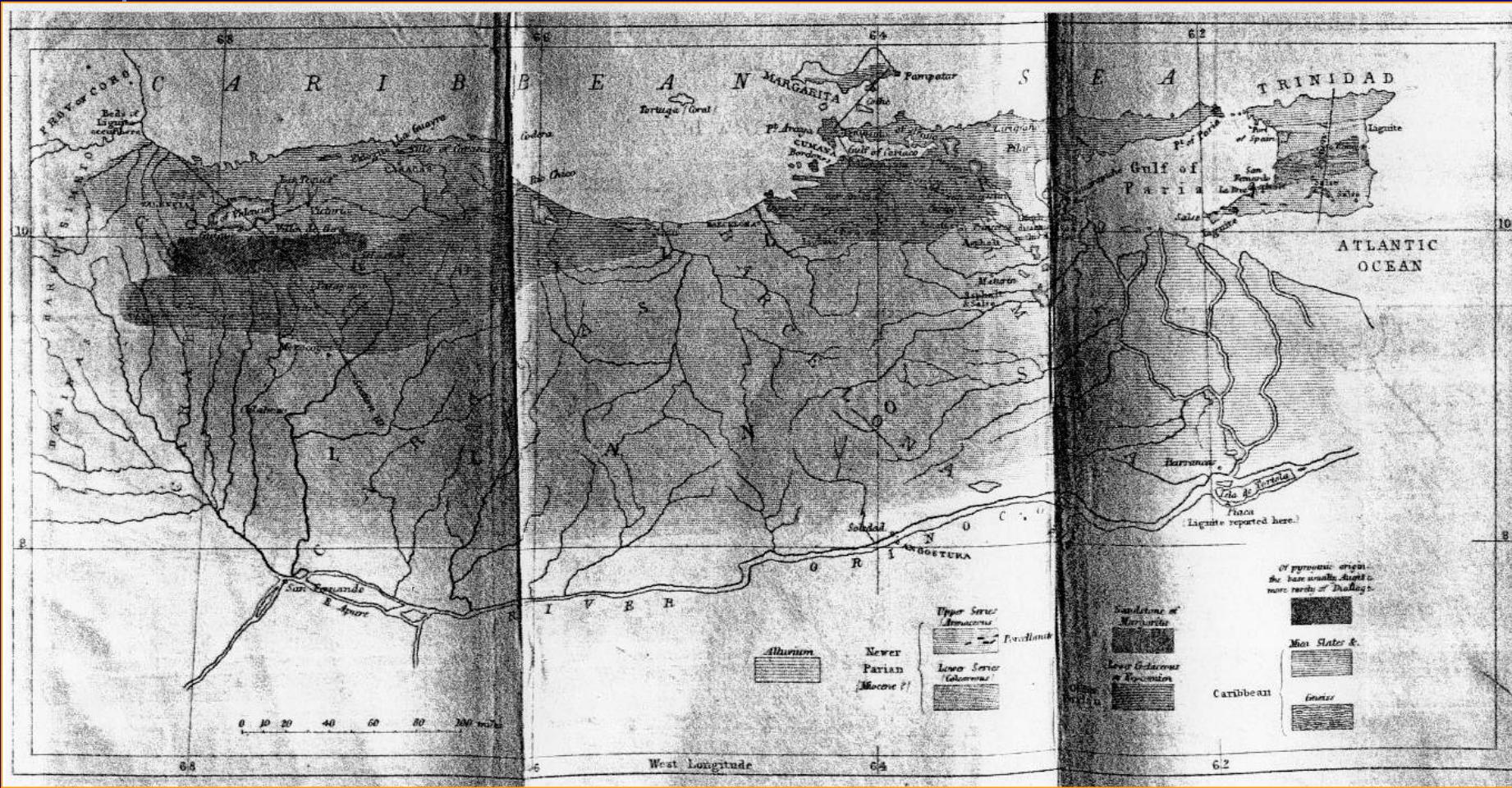
Sir Roderick Impey
Murchinson

(1792-1871)



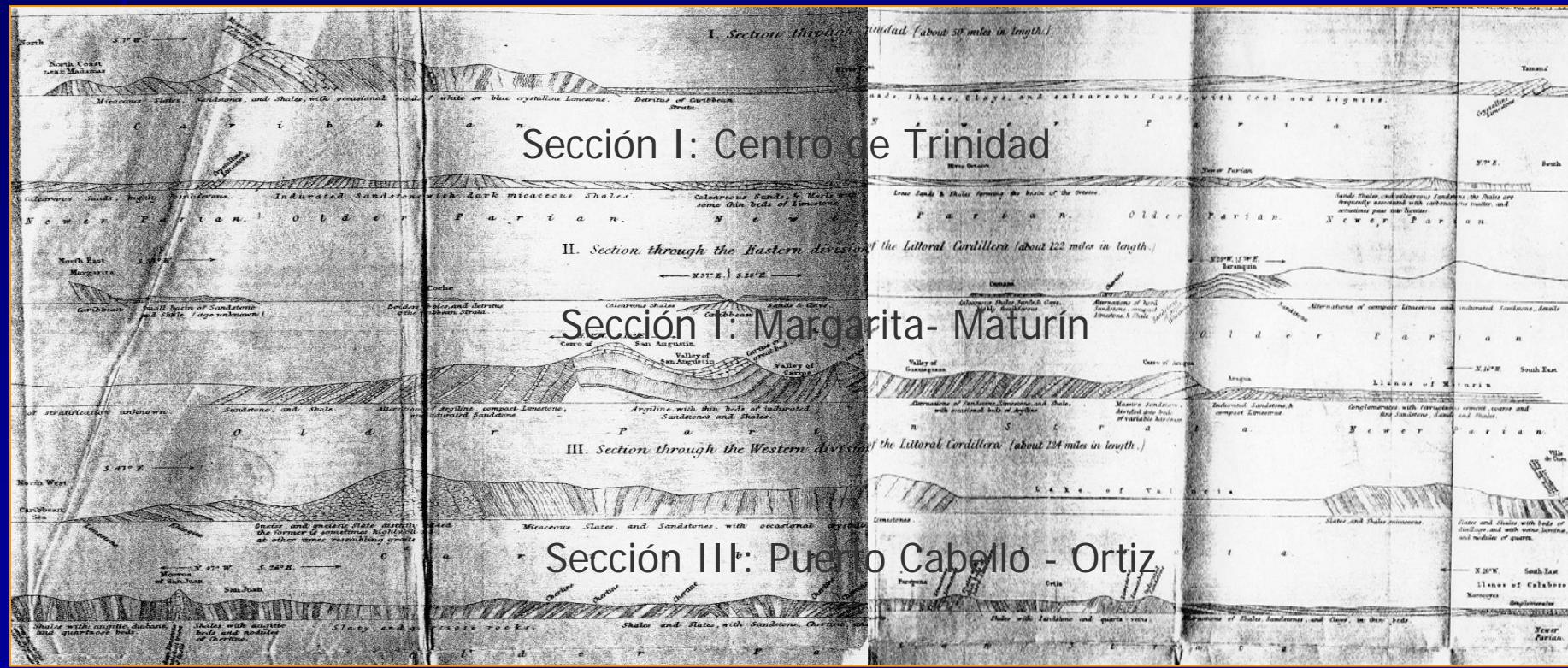
1860

Wall



1860

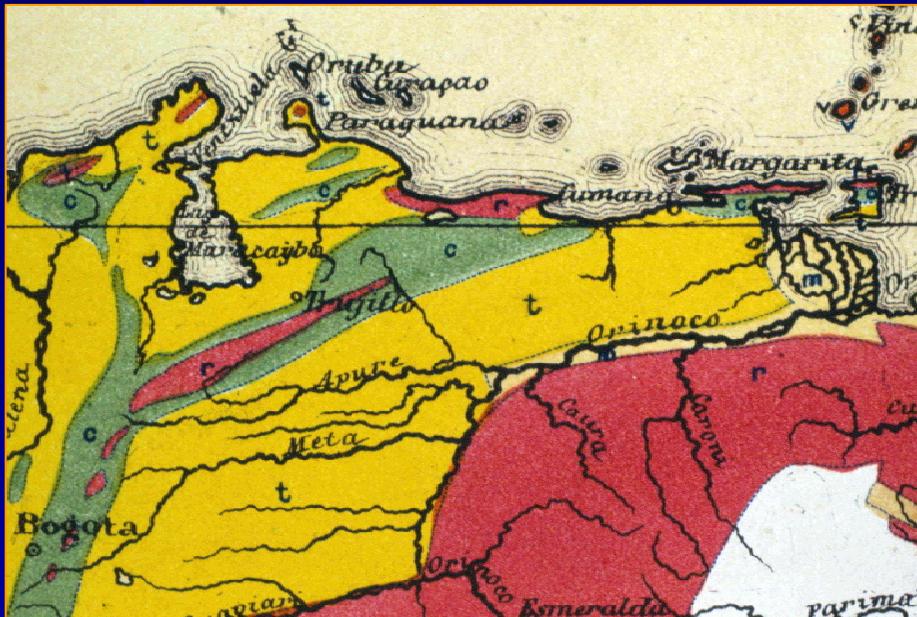
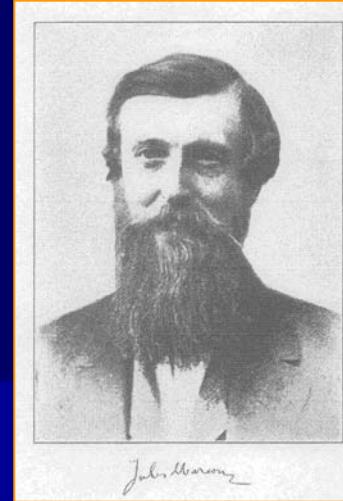
Wall



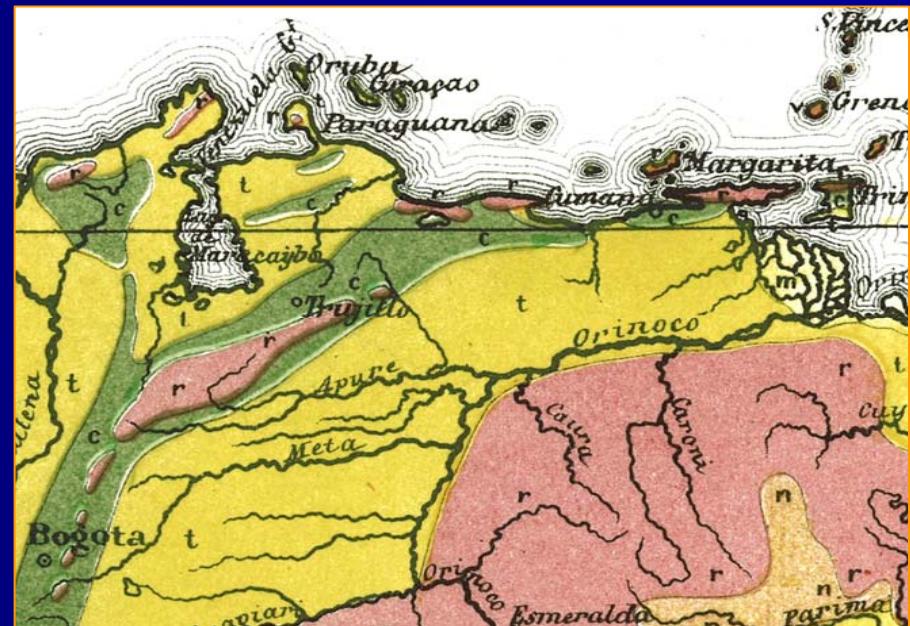
1861, 1875

Jules Marcou (1824-1898)

Carte géologique de la terre



1ra. ed., 1861



2da. ed., 1875

1875

Jules Marcou

GEOLOGICAL MAP of **THE WORLD**

by

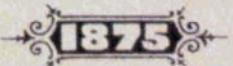
JULES MARCOU

Constructed by

J. M. ZIEGLER.

Scale: 1: 23,000,000.

Zurich J. WURSTER & C^o. Publishers.



LONDON: EDWARD STANFO
55 Charing Cross S.W.

LONDON: EDWARD STANFORD,
55 Charing Cross S.W.  **PARIS: F. SAVY,**
24 Rue Hautefeuille.

MILANO, NAPOLI, PISA:
ULRICO HOEPLI.

TABLE OF COL FORMATIONS,

Modern rocks.	Recent	
	Quaternary.	
Tertiary rocks.	Pliocene:	Anti beds, Limestone of Virgatii, Normandy Plaenavaux, Nièvre and Monte Mario beds Tortonian, St. Jean de Marne marls, Helvetic, Superga beds, and Calcareous Faluns de la Toscane and Calcaires de Longjumeau, Sables de Fontainebleau, Pierre Gypse de Montmartre. Calcaire deau Numanitie formation, comprising Chalk formation, comprising Calcaire Greensand formation, comprising Upper Yaccaonian, Whalley clay and Hastings sand Upper oolite, comprising Satine, Porcellan Biferdian, comprising Argonian, Bifid Lower oolite, comprising from the Lias, comprising from the Marnes d' Keuper, comprising: Kässener Schich Muschelkalk, comprising the Göttinger Hunter-Sandstein, comprising the Sa Rachstein, comprising: Rauchwacke, Roth - rodt - biengende, comprising the Upper coal-measures of Newcastle, Sac Millstone grit of Yorkshire and Kilburn Mountain limestone of Derbyshire, Tu Lower limestone shale, comprising: dis tinctive of Arns, Illinois, Ronne Ellen and red sandstones or Upper forma Eifel limestone, Chieftain beds, Mackinaw Duxian of Torbay and Linton, New Br Upper silurian, comprising: Ludlow, Wiri inclined; la faune troisième et Lower silurian, comprising: laracide la faune seconde de Barrande et Taconique
Secondary rocks.	Cretaceous:	
few red sandstone rocks.	Jurassic:	
Carboniferous rocks.	Triassic:	
Paleozoic rocks or Grauwacke.	Dyassie.	
Cristalline rocks.	Coal measures.	
Volcanic rocks.	Carboniferous. Limestone.	
	Old red sandstone.	
	Silurian:	
	Taconique	



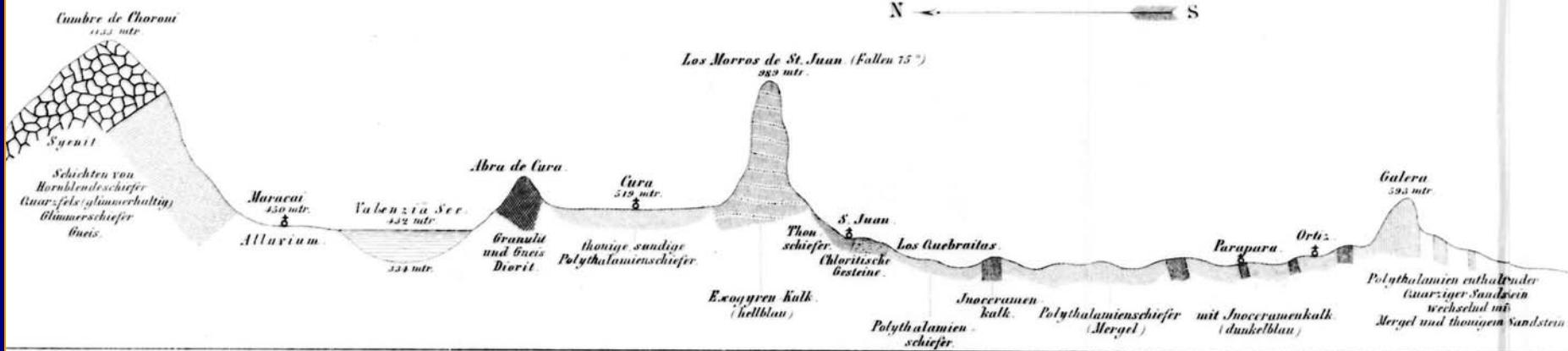
1862

Karsten

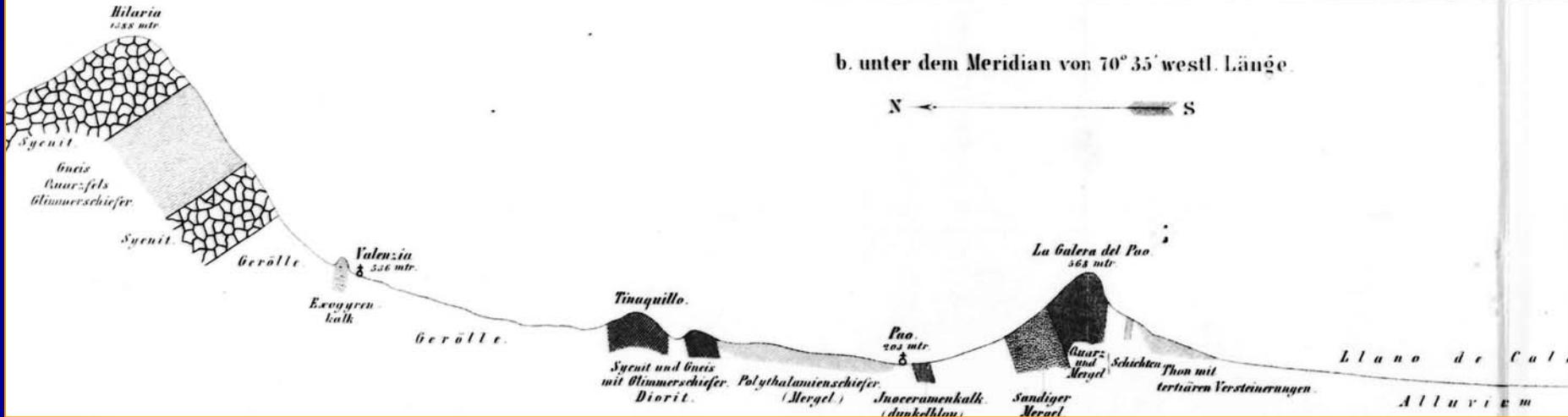
in der Breitenstreckung.

Geognostische Durchschnitte der Küstenkette von Venezuela

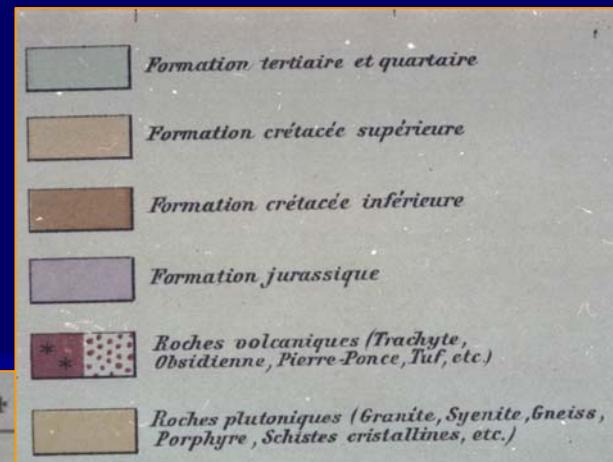
a. unter dem Meridian von $70^{\circ} 5'$ westl. Länge



b. unter dem Meridian von $70^{\circ} 35'$ westl. Länge



1886 Karsten



Fundador de
la primera
Escuela de
Minas,
Guasipati,
1892



PLANO DEL TERRENO
PERTENECIENTE Á LA COMPAÑÍA
THE QUEBRADA RAILWAY, LAND & COPPER COMPANY LIMITED
DENOMINADO
ESTADO BOLIVAR

El presente plano es copia exacta del original levantado en diciembre 31 de 1869.

M. E. PALACIO
C. M. E.



NOTA:

Se hace constar que este plano es una copia del
entregado por la Compañía al Inspector Técnico de Minas,
y que no reviste carácter oficial.

Caracas / Noviembre 12 de 1891.

El Ministro de Fomento,
VICENTE AMENGUAL.

1891

**Miguel Emilio
Palacio**

(1849-1931)

1888

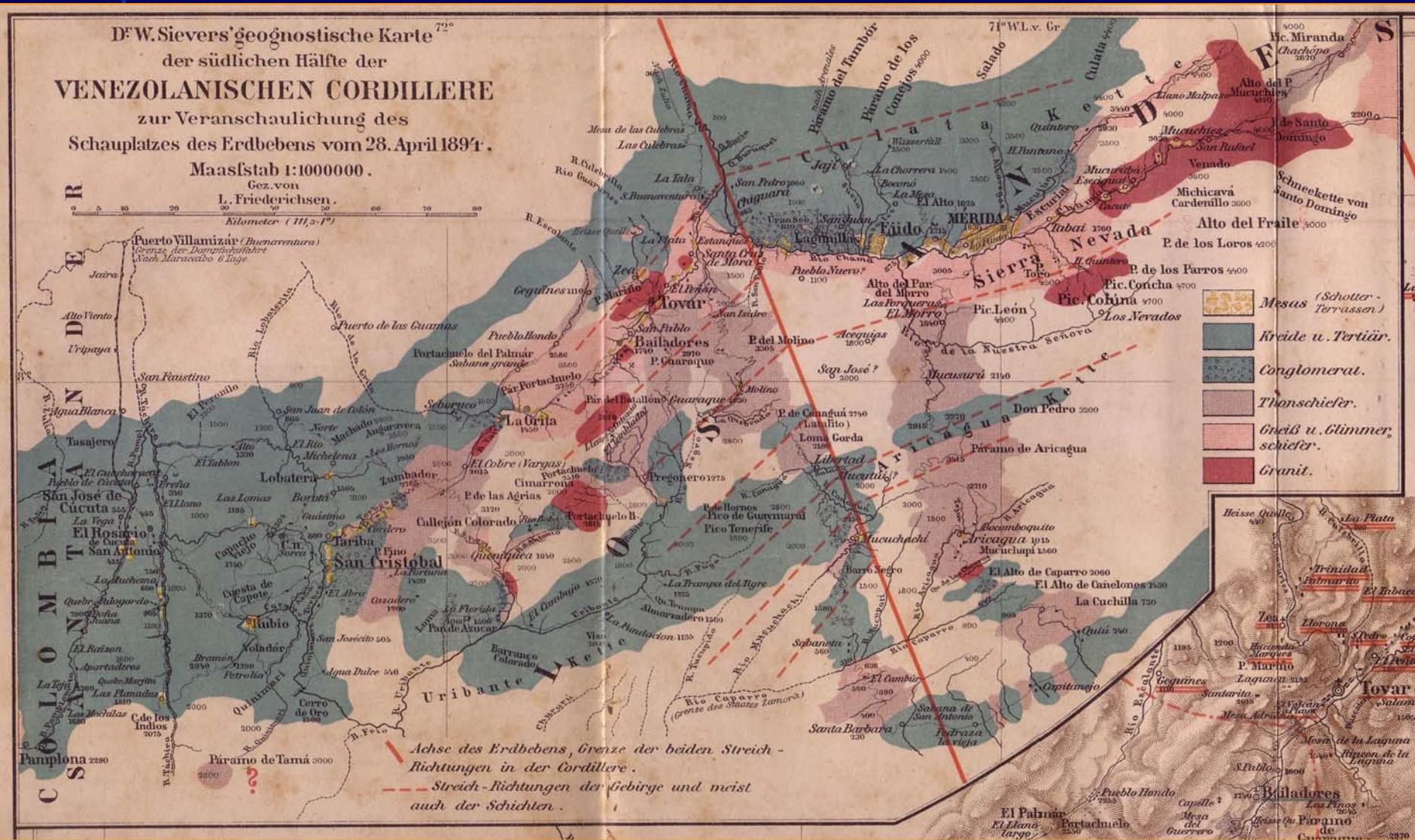
Wilhelm F. Sievers (1860-1921)

Die Cordillera von Merida



Cúcuta-Caracas
1:1.000.000

1895 Wilhelm F. Sievers



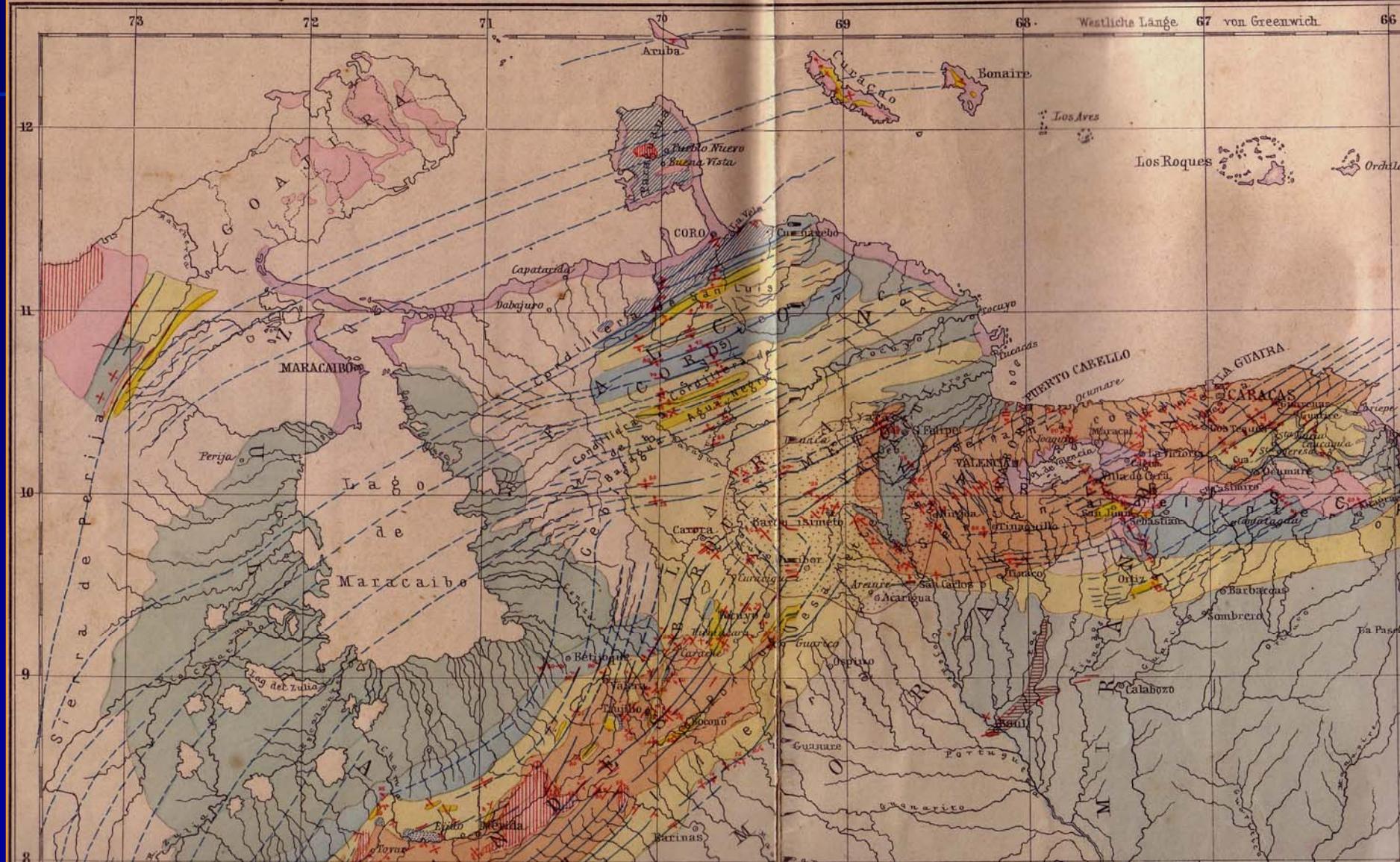
* 1896 *
Sievers CABELLO



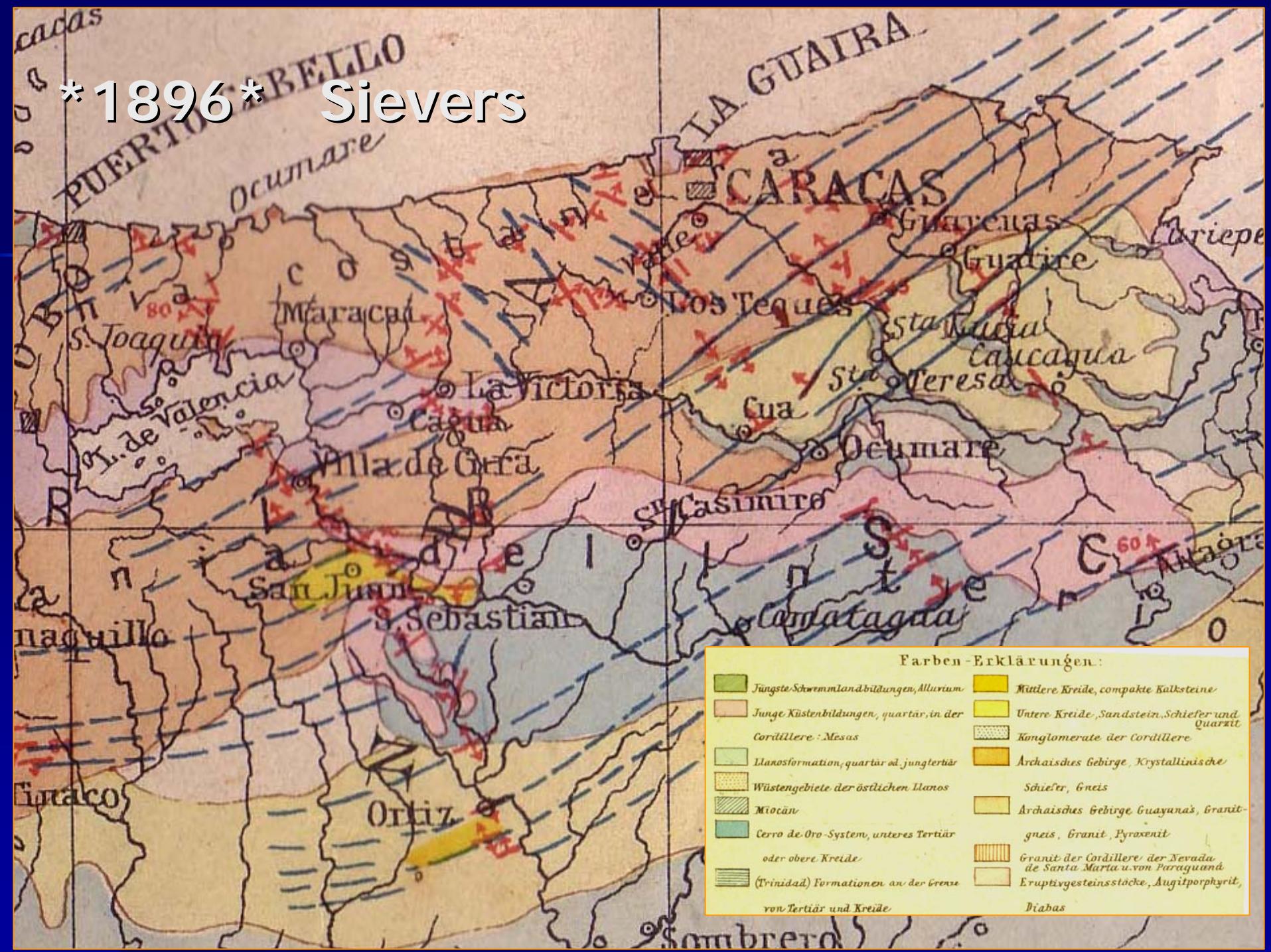
1896 Sievers

Petermann's Geogr. Mitteilungen

NÖDLICHES VENEZUELA von W. Sievers. — I. ÜBERSICHT DER GEOL



1896 Sievers





Homenaje del autor al amago Alvaro.

Ausgegeben am 10. September 1898.

Sonder-Abdruck aus Band LXXIV, Nr. 10 des

GLOBUS.

Illustrierte Zeitschrift für Länder- und Völkerkunde.
Vereinigt mit der Zeitschrift „Das Ausland“.

Herausgeber: Dr. Richard Andree, Verlag von Friedr. Vieweg & Sohn in Braunschweig.

Erscheint in halbjährlichen Bänden von 24 Nummern. — Preis vierteljährlich 6 Mark. — Zu beziehen durch alle Buchhandlungen und Postanstalten. (In der deutschen Zeitungs-Preisliste für 1898 unter Nr. 2974 aufgeführt.)

Die Inseln vor der Nordküste von Venezuela.

Nach den bisherigen Quellen und unter Berücksichtigung des Tagebuchs und der Gesteins-Sammlung Richard Ludwigs.

Dargestellt von W. Sievers.

In Band 73, Nr. 19 dieser Zeitschrift habe ich bei „Die Aves sind zwei Gruppen von Cayos oder Inselchen,

1898 Sievers

1914 Sievers

GEOLOGISCHE KARTE
VON
SÜD- U. MITTEL- AMERIKA.

Nach Steinmann, Brackebusch, Stübel, Sapper u.A.

Maßstab 1: 50 000 000
Kilometer.

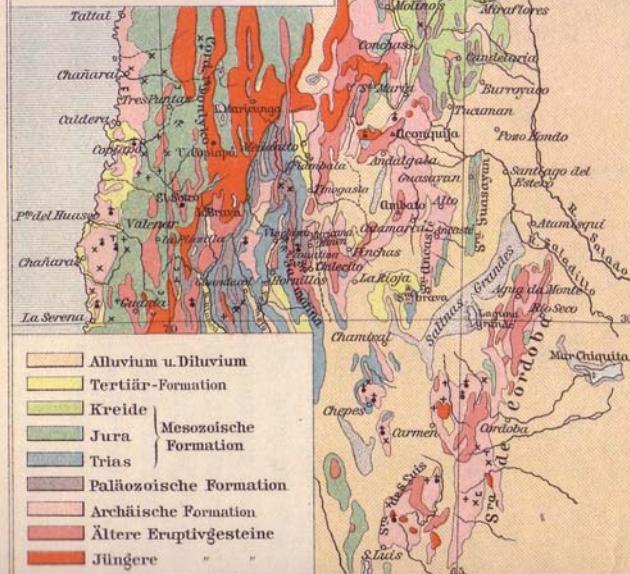
Alluvium u. Diluvium
Tertiär-Formation
Mesozoische Formation
Paläozoische Formation
Archäische F.u. ältere Eruptivgesteine
Jüngere Eruptivgesteine

Im 19. u. 20. Jahrh. tätige Vulkane. • Nichttätige Vulk. ♦ Größere Fördergeb. v. Kohlen

Argentinische Kordillere.

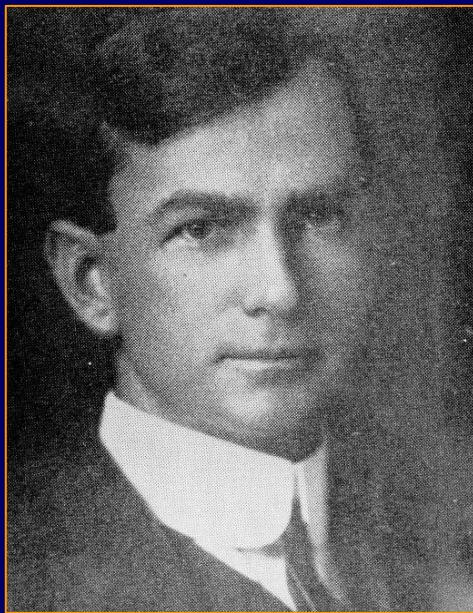
Maßstab 1: 12 000 000
Kilometer.

Goldgruben
Silber
Kupfer
Eisen
Blei
Nickelgruben
Salz
Asphalt, Petroleum
Mineralwasser
Steinkohle

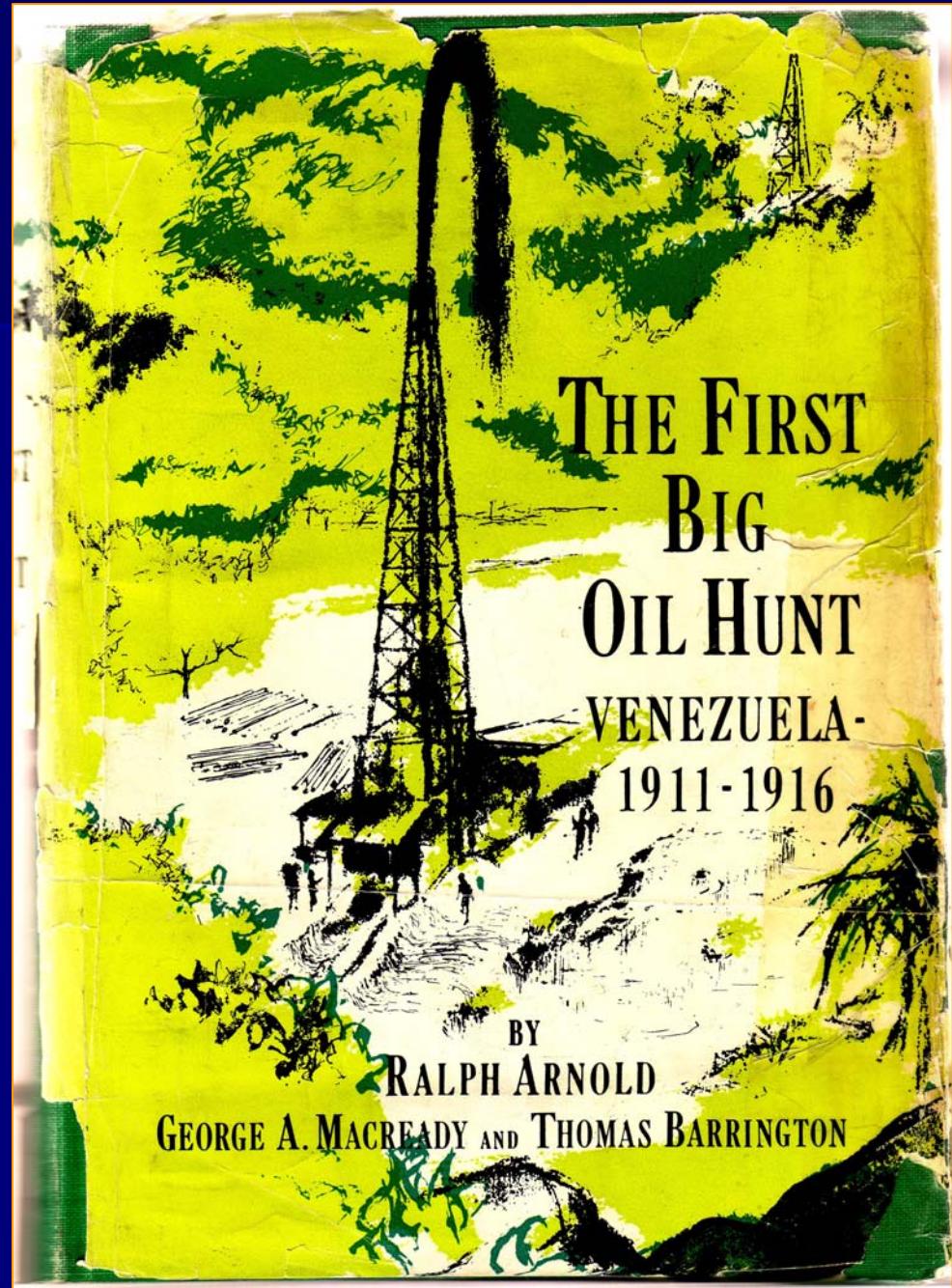


1911-1916

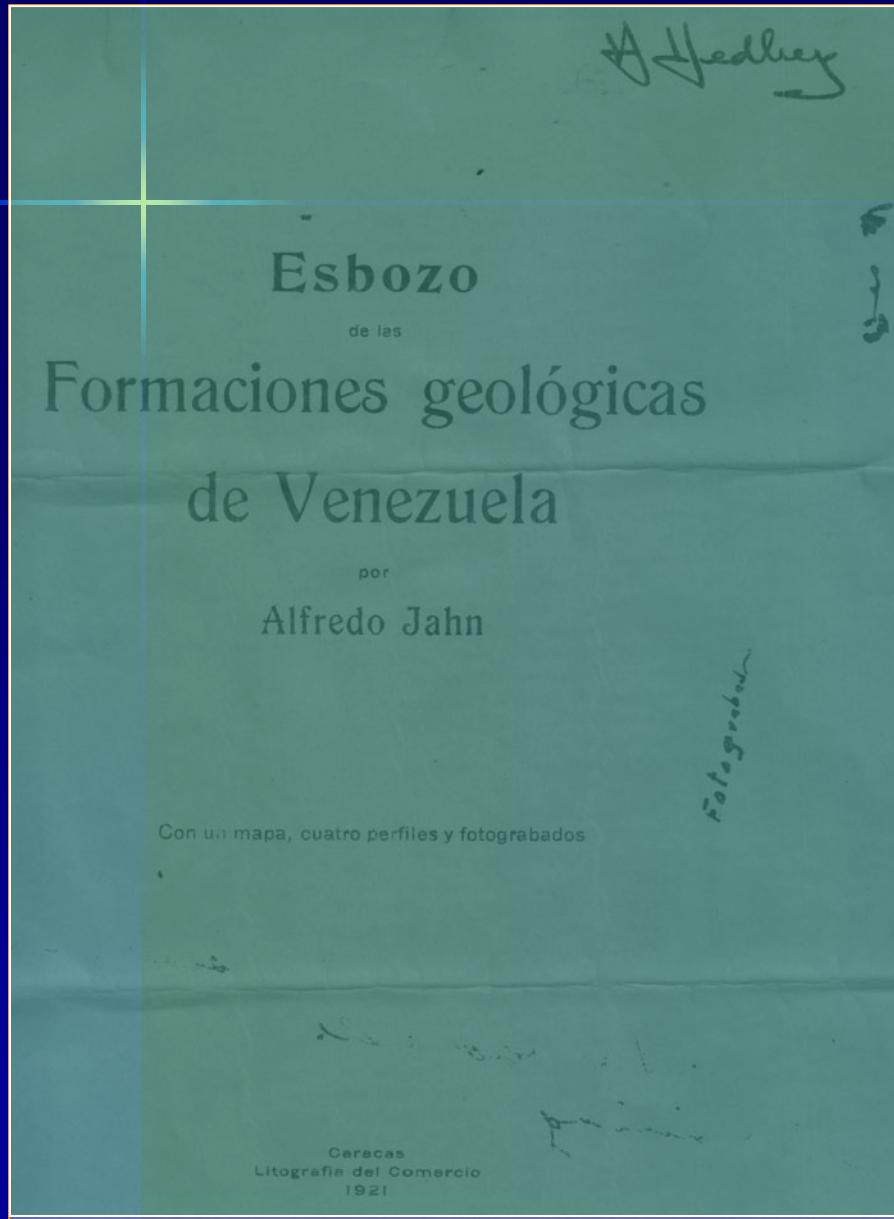
Ralph Arnold (1875-1961)



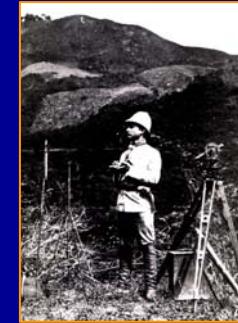
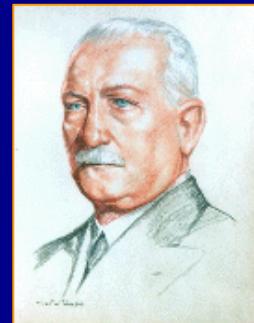
Royal Dutch/Shell Group
The Caribbean Petroleum Co.



1921 Alfredo Jahn (1867-1940)



ALFREDO JAHN JR.
INGENIERO
INSPECTOR TECNICO DE LOS FERROCARRILES DE VENEZUELA.



1921 Jahn

Mapa Geológico
DE
Venezuela
POR
A. Jahn

SEGUN SUS PROPIAS OBSERVACIONES:
LAS DE HUMBOLDT, KARSTEN, WALL, SIEVERS,
KOCHE-GRÜNBERG, BAUER Y LOS TRABAJOS DE LA
CARIBBEAN PETROLEUM COMPANY.

1921

ESCALA 1: 2.000.000

EDIT. LITOGRAFIA DEL COMERCIO, CANADAS

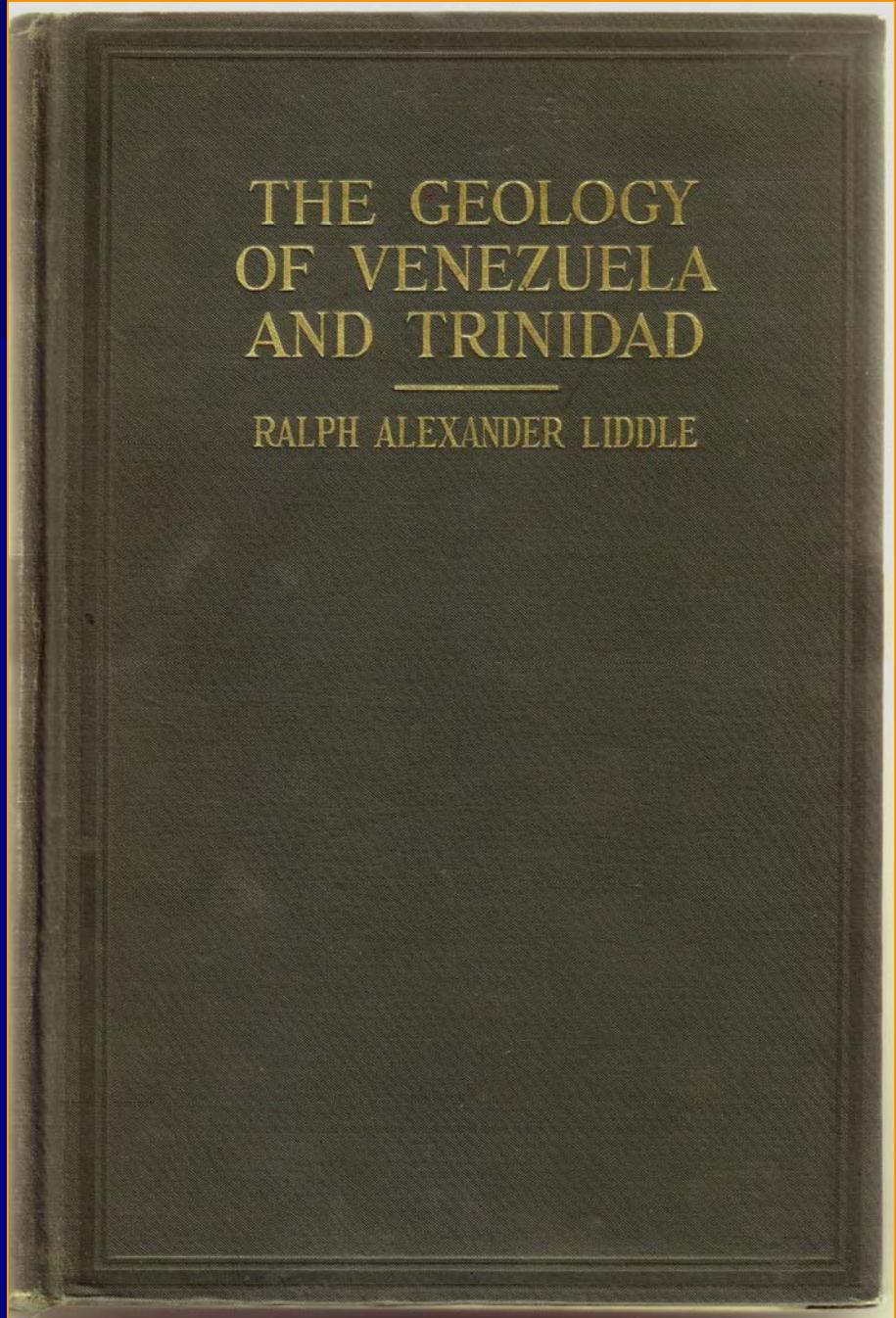


1928

R. A.
Liddle
(1896-1963)



Max Krueger, 1927. Río Guasare



1928 Liddle

RECONNAISSANCE OF THE AREAL GEOLOGY
OF
NORTHERN VENEZUELA
BY
R.A.LIDDLE

SCALE 1:1500 000

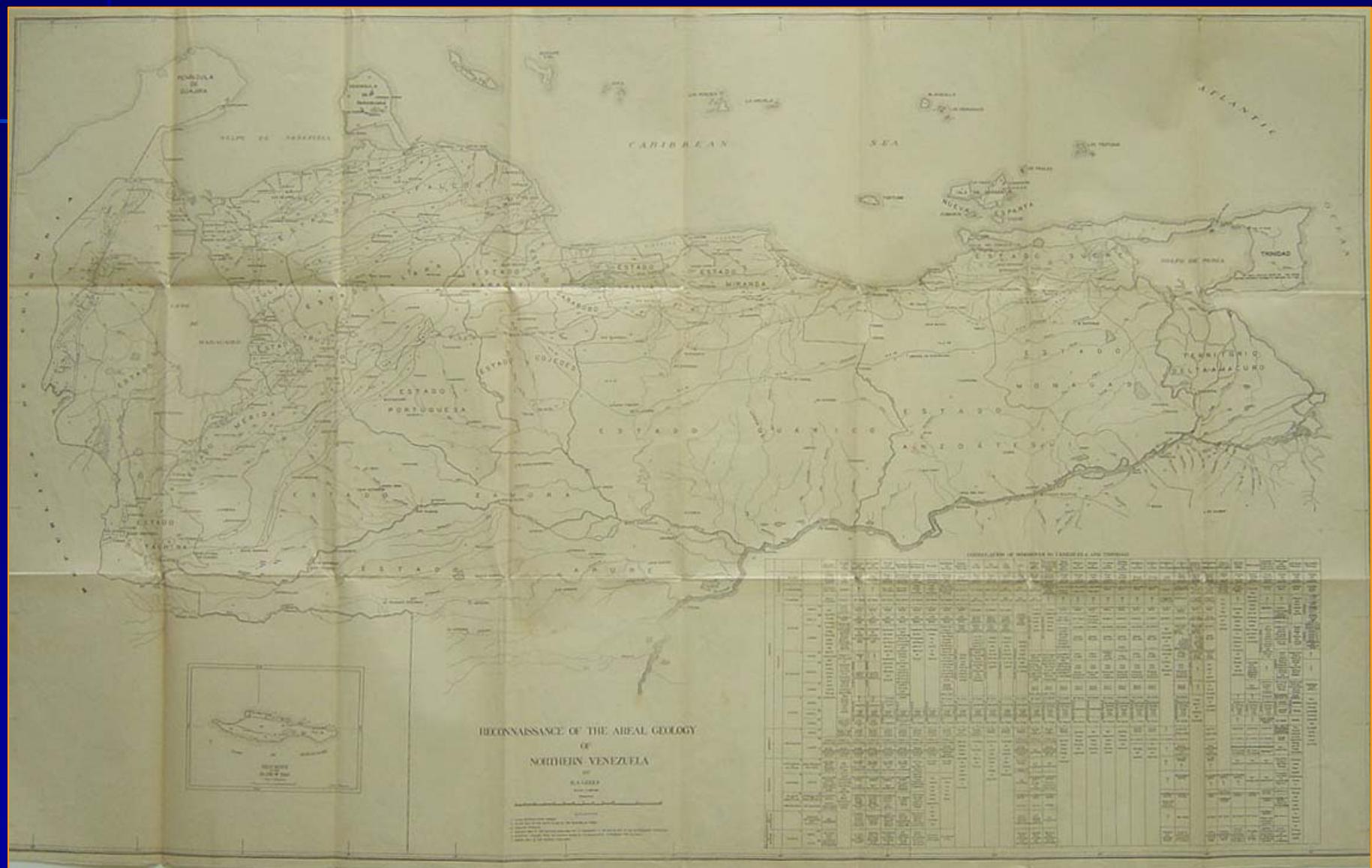
Kilometers



EXPLANATION

- + LOCAL DEPOSITS NEAR CUMANA.
- * OCCUR ONLY ON THE SOUTH FLANK OF THE VENEZUELAN ANDES.
- ✖ ARGILINE DEPOSITS.
- † EXPOSED ONLY IN THE GUAYANA HIGHLANDS BUT IS CONSIDERED TO BE EQUIVALENT TO THE BARRANQUIEN FORMATION.
- ◆ DEFINITELY YOUNGER THAN THE GUAYANA SERIES OR ITS EQUIVALENTS. IS PROBABLY PRE-SILURIAN.
- KNOWN ONLY IN THE GUAYANA HIGHLANDS.

1928 Liddle



1928 Liddle



1928

Liddle

		limestone reef	MARLY limestone reef	II
7A	Absent through faulting and unconformity	COLON SHALE in part	C S i	
7B	COGOLLO LIMESTONE	COGOLLO LIMESTONE	CO LIM	
7C	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	E C E	
8	OLD RED SERIES Red shale Sandstone Limestone	Old granite mass, Locally intruded by igneous rock	OLD RED SERIES O S dev	

PALAEZOIC	PROTEROZOIC	PROTEROZOIC	PROTEROZOIC	ARCHEOZOIC	CAICARA	RECENT	GOAJIRPA PENINSULA	ISLAND OF TOAS	RIO SOCUY AND RIO GUASAPE	RIO CACHIRI AND INCARITE	TOTUMO AND RIO LA LUJA	RIO COBOSO RIO PICHE	RIO MACAOITA RIO APONCITO	RIO AFON	RIO NEGRO AND RIO YASA	BUENA ESPERANZA, RIO LEXO	RIO DE ORO	RIO CATATUMBO	RIO TARRA	
QUATERNARY							Raised beaches, sand dune deposits	Satinin clay, sand, sands	River gravels, loamy, loam and gravel	River alluviums	Extensive gravel with out from mountain	Alluvial cones and terraces	Extensive alluvial cones and terraces	Alluvial gravel and clay	River terraces	River and upland alluvium	River and upland alluvium	River and upland alluvium	River and upland alluvium	
	PLEISTOCENE						Old inland sand dunes	Absent	?	?	Old river terraces	Old river deposits	Older cones and terraces	Older cones and terraces Mammillon remains	Not found	Not found	Not found	Not identified	Not identified	Not identified
	PLIOCENE						Morly limestone	Absent	Not found	Not found	Not known	Not known	Not found	Not found	Not found	Not identified	Not found	Not identified	Not identified	
	4A	UPPER					Not exposed, though probably present under Palmaréjo Flora and fauna suggests Lower or Middle Miocene. Stratigraphic position indicates Middle Miocene	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	LA VILLA BEDS	GUAYABO	GUAYABO	GUAYABO	
	4B	MIDDLE					LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	LOS RANCHOS BEDS	UPPER SHALE HORIZON	UPPER SHALE HORIZON	UPPER SHALE HORIZON	
	4C	LOWER					Concealed by younger overlapping beds	Concealed by beds which are nearly horizontal and which transgress older and more highly folded	Concealed by beds which are nearly horizontal and which transgress older and more highly folded	La Villa and Los Ranchos beds unconformably transgress older and more highly folded and truncated	Conditions similar throughout northern part of District of Perija	Conditions same as to north in the district	Shale outcrop on Rio Negro overlying Missoy Trujillo formation probably part of Sandy Shale horizon	FIRST COAL HORIZON	FIRST COAL HORIZON	FIRST COAL HORIZON				
	5A	UPPER					Oligocene and Eocene not exposed in this limited area. Probably faulted out areas intensely disturbed.	Absent	?	?	all sediments between Middle Miocene and Eocene	in places reaching to Sierra de Parija and lapping against Eocene and Cretaceous rocks	in the south-western part of Maracayao Basin the Sandy Shale horizon contains the Oligocene and Lower Miocene beds most of which are transgressed by Los Ranchos beds	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	Sandy shales and sandstones. Carries a little lignite	Sandy shales and sandstones. Carries a little lignite	SANDY SHALE HORIZON	
	5B	MIDDLE					which transgress older and more highly folded	UPPER COAL SERIES	UPPER COAL SERIES	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	SANDY SHALE HORIZON	
	5C	LOWER					They occur to the east and west.	?	?	Eroded and overlapped	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR	MIRADOR
	6A	UPPER					Local marly limestone reef	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO	MIRADOR-TRUJILLO		
	6B	MIDDLE					Local marly limestone reef	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON	THIRD COAL HORIZON		
	6C	LOWER					Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	Local marly limestone reef	
	7A	UPPER					Absent through unconformity	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part	COLON SHALE in part		
	7B	LOWER					COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE	COLON LIMESTONE		
	7C	CRETACEOUS					BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE	BASAL CRETACEOUS CONGLOMERATE		
	8A	UPPER PERMIAN					OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	OLD RED SERIES	
	8B	RED BEDS					Red shale Sandstone Limestone	Old granite mass, cut by igneous rock	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	Well developed	
	9	MIDDLE					RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES	RIO CACHIRI SERIES		
	10	LOWER SILURIAN ON ORDOVICIAN					Dark limestone, quartzite, black shale	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	Locally fossiliferous	
	11	UPPER DEVONIAN					Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float	Caribbean Schist Known only from float		
	12	PRE-SILURIAN					Chiefly silvery-grey mica schist	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	Angular igneous blocks	
	13	METAMORPHIC					Not recognized	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks	Conglomerate of massive igneous blocks		
	13A	IGNEOUS					Basic	Granitic, gneissic, diorite and basalt	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous	Old igneous mass, Intrusions as young as Cretaceous		
	13B	ACIDIC					intrusives which reach to Cretaceous	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions	breccias of old land mass and later intrusions		

Otras ediciones:

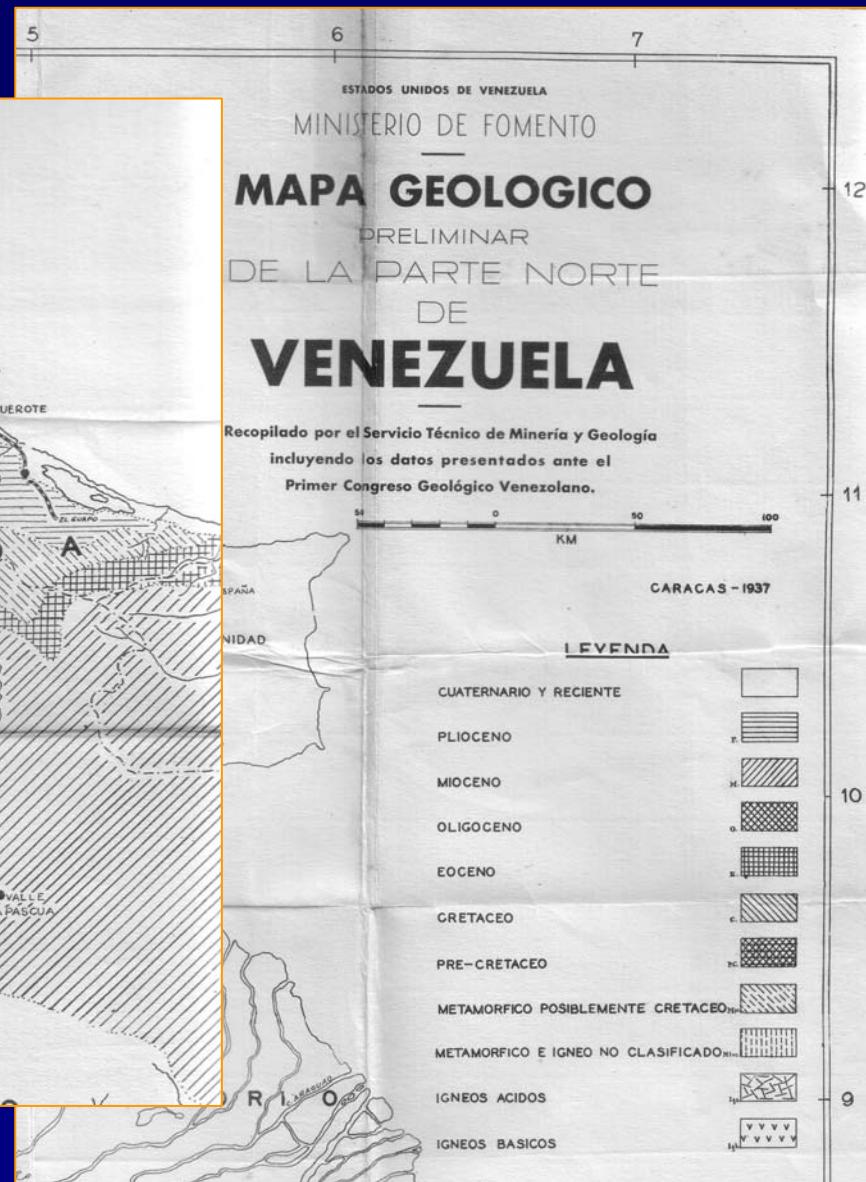
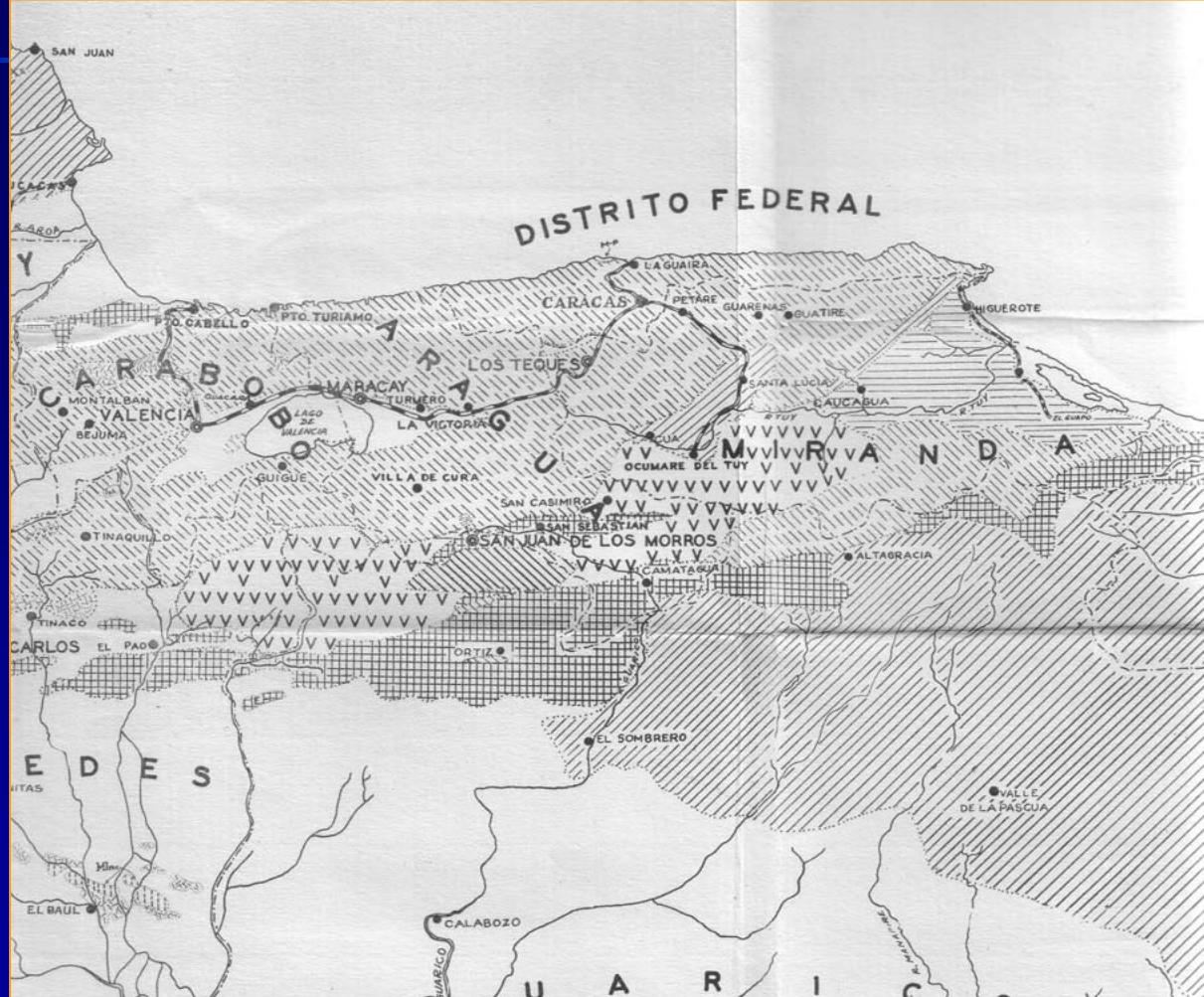
1946, 1975?

1937

Servicio Técnico de Minería y Geología Ministerio de Fomento



1937 Servicio Técnico de Minería y Geología. Ministerio de Fomento



Geological Notes on the Central Part of the
Cordillera de la Costa, Venezuela ⁽¹⁾

by

Santiago E. Aguerrevere ⁽²⁾ and Guillermo Zuloaga ⁽²⁾

INTRODUCTION

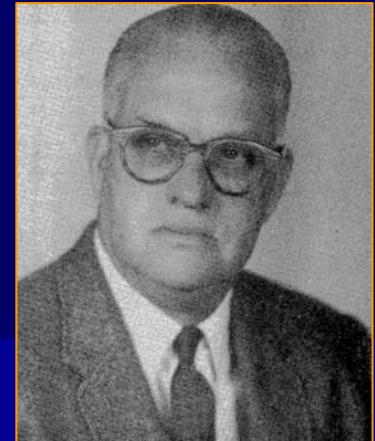
We believe it useful to present at the First Venezuelan Geological Congress a paper on the central part of the Cordillera de

1937
**Santiago E.
Aguerrevere**

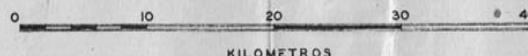
(15-8-1899 al 15-11-1984)



**Guillermo
Zuloaga**
(1904-1984)



CROQUIS GEOLOGICO
DE LA
PARTE CENTRAL DE LA CORDILLERA DE LA COSTA
PRESENTADO ANTE EL PRIMER CONGRESO GEOLOGICO VENEZOLANO
POR
S.E. AGUERREVERE Y G. ZULOAGA



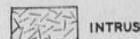
LEYENDA



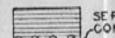
TERCIARIOS



INTRUSIONES BASICAS



INTRUSIONES ACIDAS



SERIE DE VILLA DE CURA
CONGLOMERADO DE CHARALLAVE



"AUGEN GNEISS" DE PEÑA DE MORA



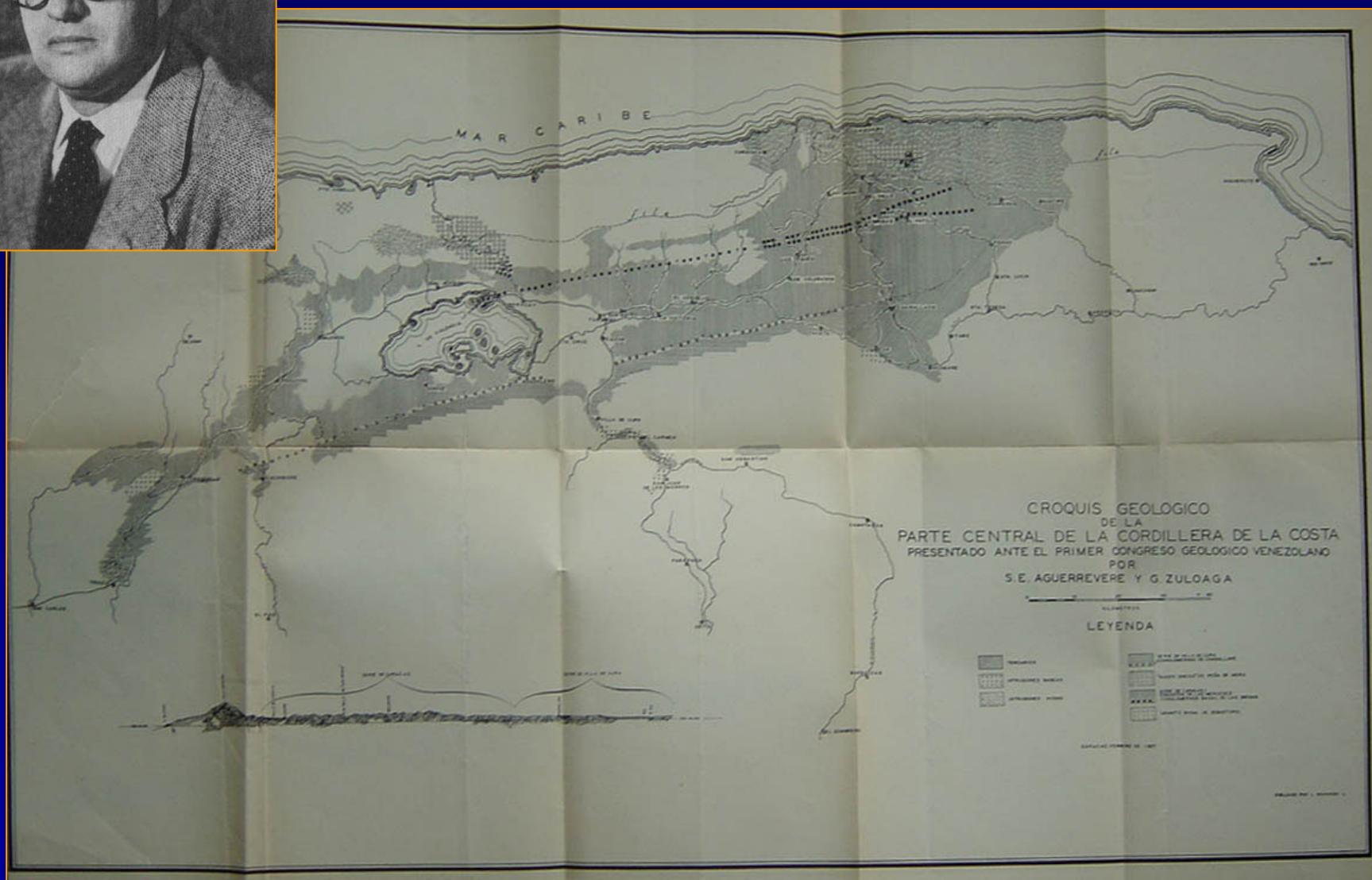
SERIE DE CARACAS I
ESQUITOS DE LAS MERCEDES
CONGLOMERADO BASAL DE LAS BRISAS



GRANITO BASAL DE SEBASTOPOL



1937 S. E. Aguerrevere & G. Zuloaga

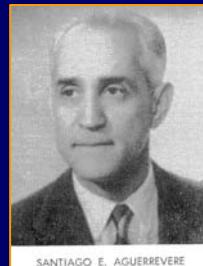


1942

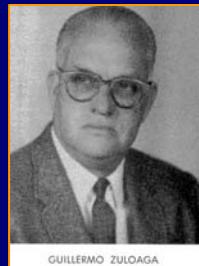
Instituto de Geología



VÍCTOR M. LOPEZ



SANTIAGO E. AGUERREVERE



GUILLERMO ZULOAGA

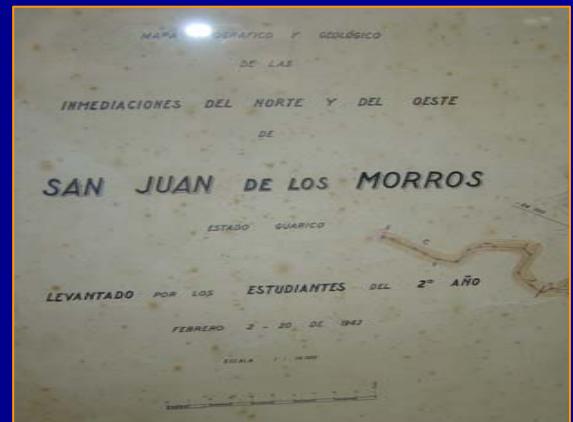


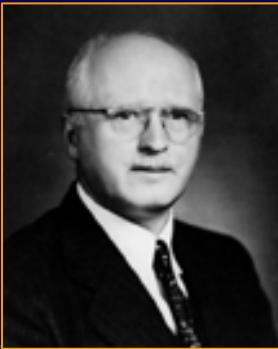
PRIMERA PROMOCIÓN DE LA ESCUELA DE GEOLOGÍA, CON SU PROFESORADO

Víctor López (1905-1989)

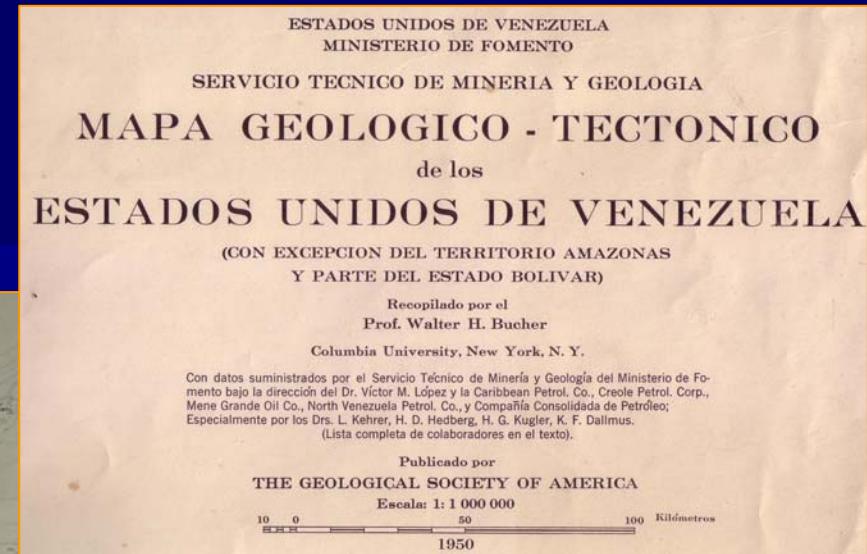
Santiago Aguerrevere (1899-1984)

Guillermo Zuloaga (1904-1984)

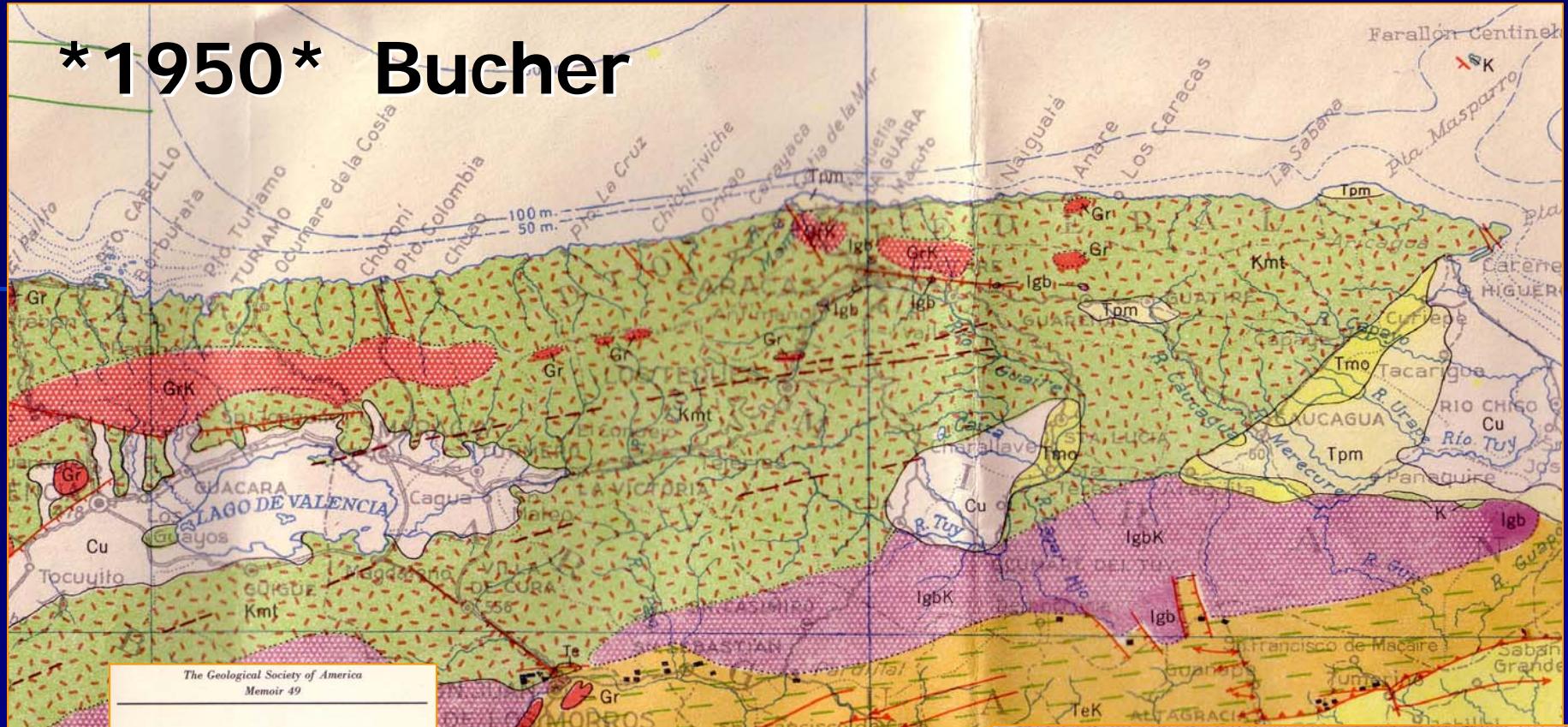




1950 Walter Hermann Bucher (1888-1965)



1950 Bucher



The Geological Society of America
Memoir 49

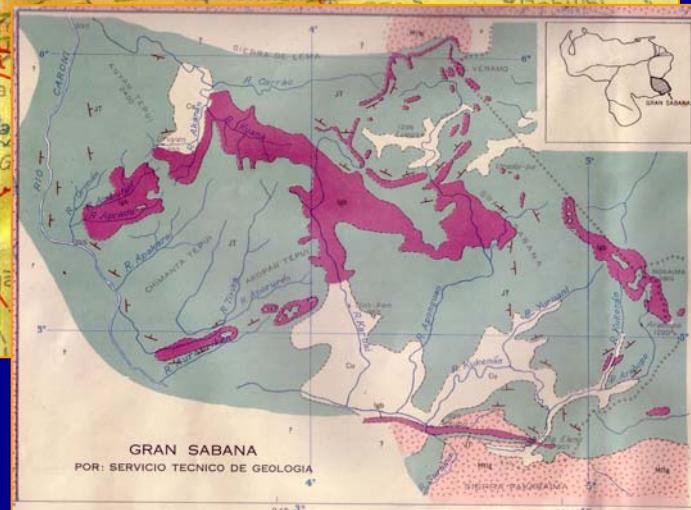
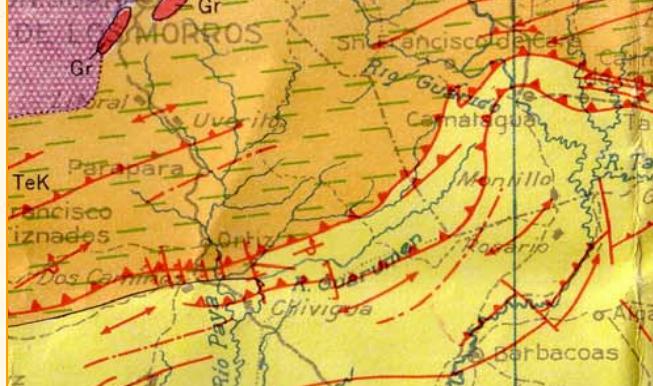
GEOLOGIC STRUCTURE AND OROGENIC HISTORY OF VENEZUELA

TEXT TO ACCOMPANY THE AUTHOR'S GEOLOGIC
TECTONIC MAP OF VENEZUELA

BY
WALTER H. BUCHER
Columbia University, New York, N.Y.



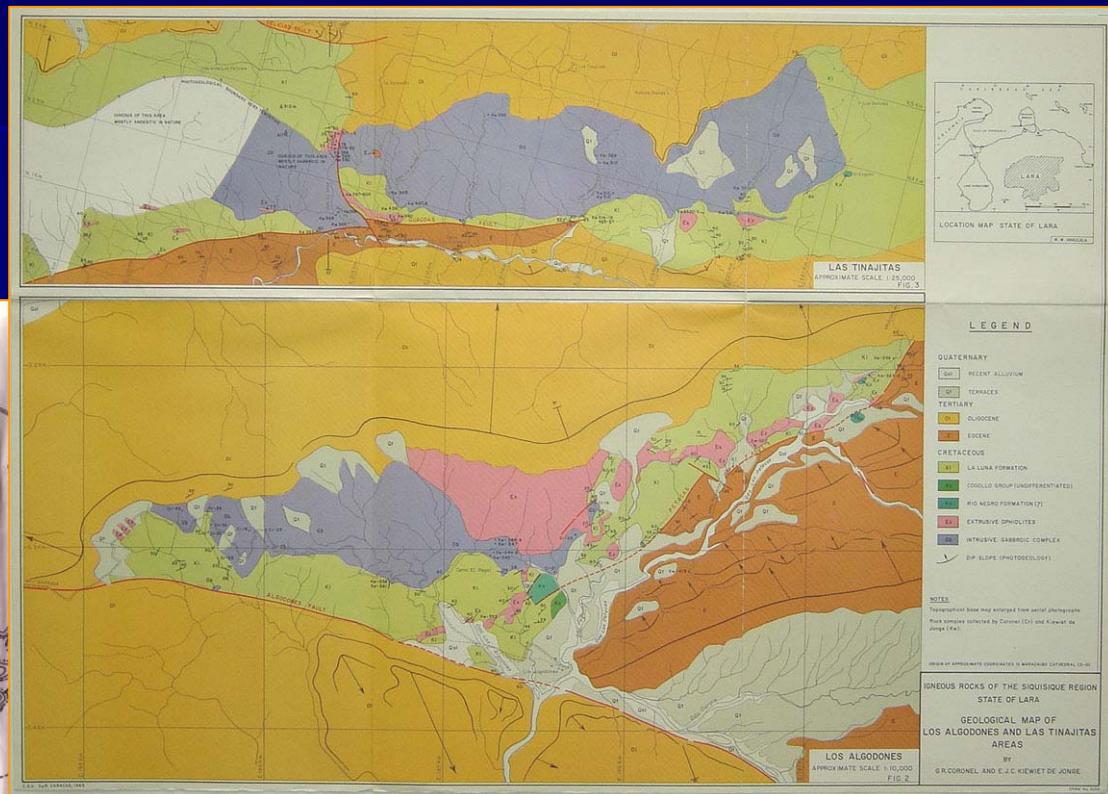
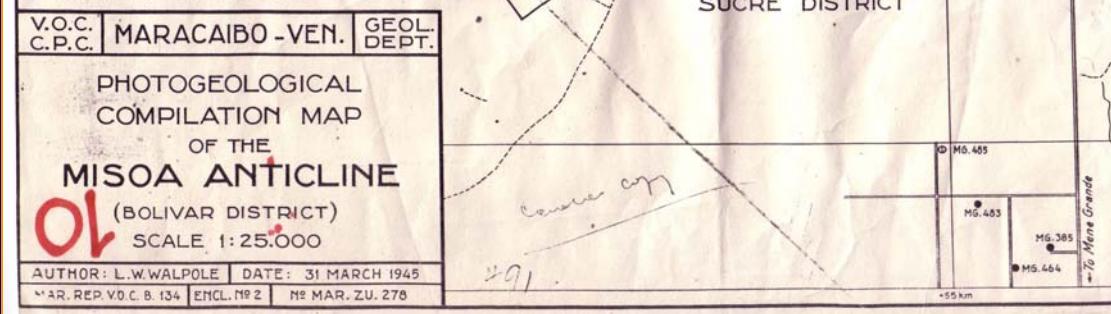
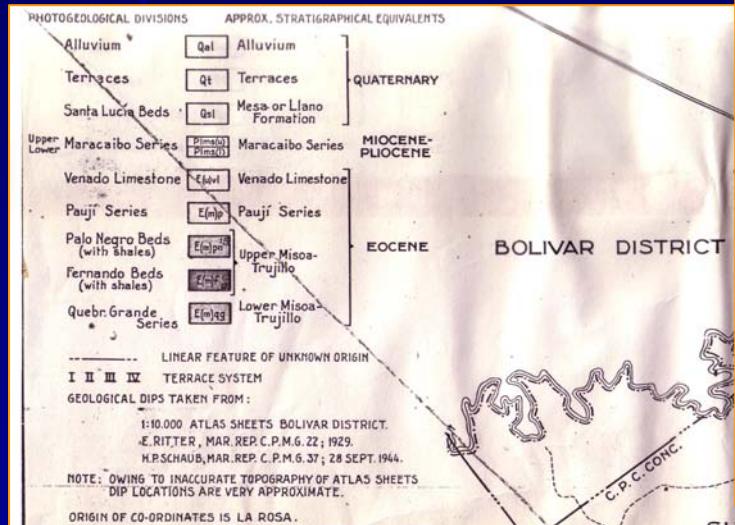
February 25, 1952



1920's a 1960's

Cia. Shell de Venezuela

- Occidente-



GEOLOGICAL SKETCH-MAP
OF
THE WESTERN VENEZUELAN ANDES

L. KEHRER AND E. KUNDIG

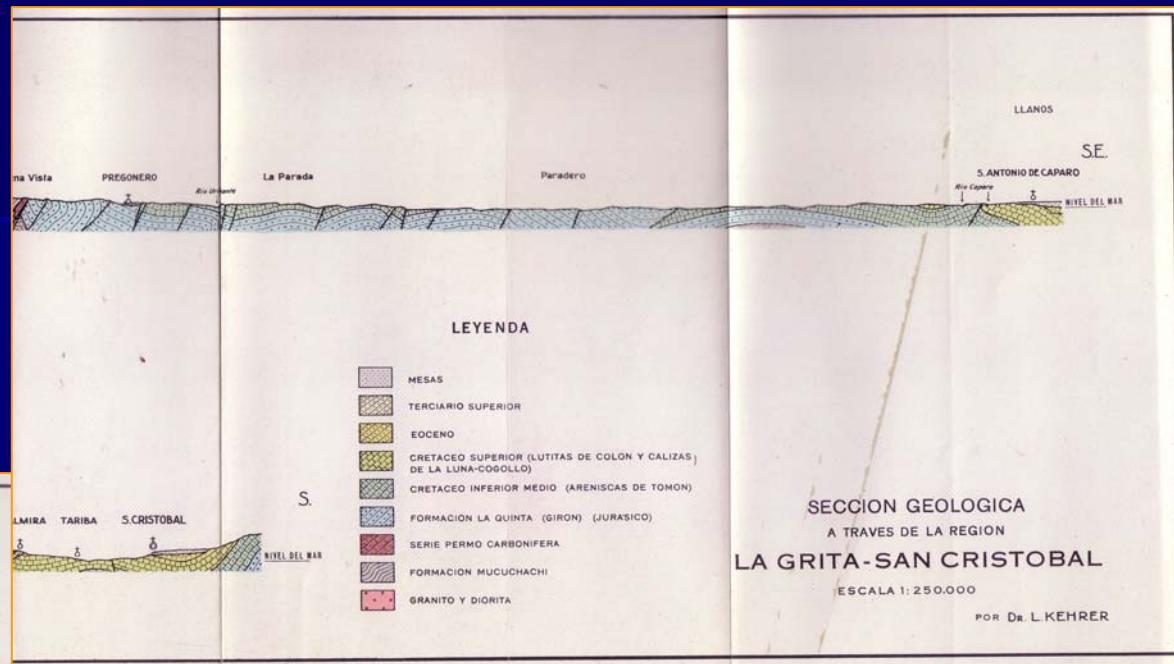
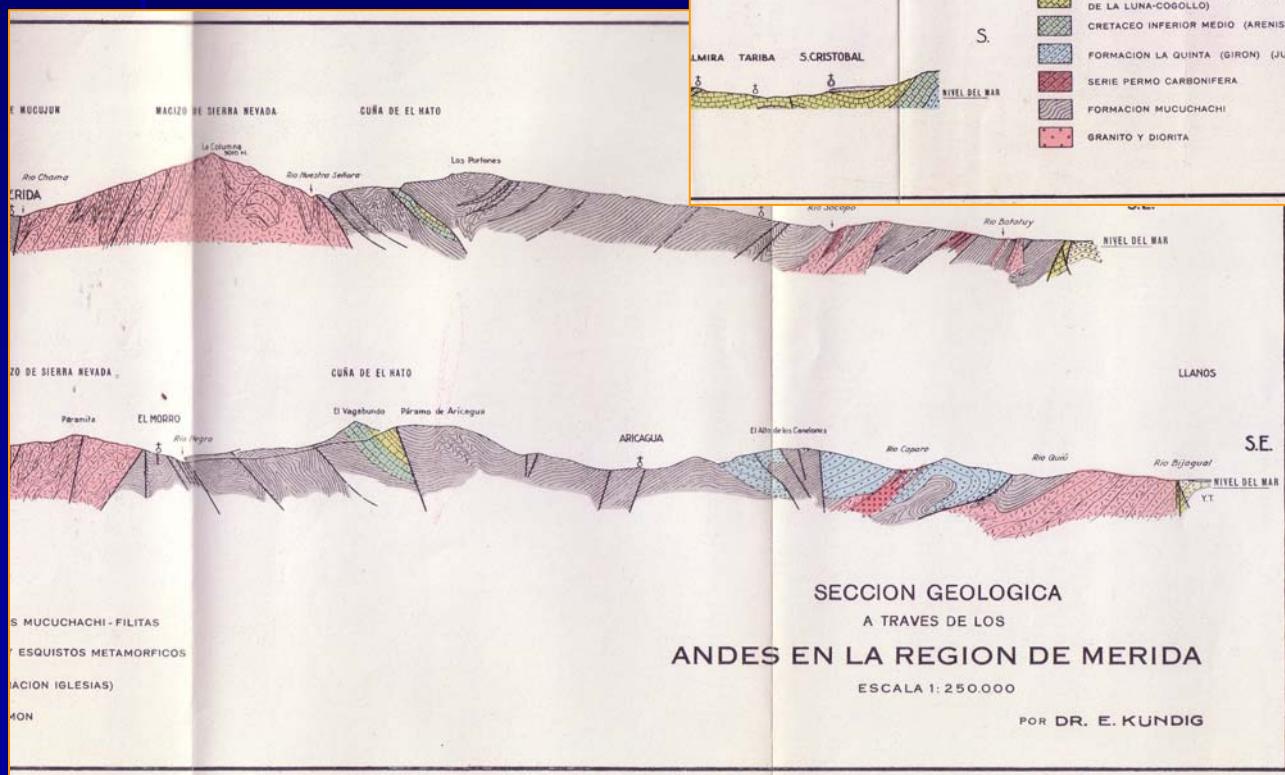
BASED ON THEIR OWN SURVEYS AND THOSE OF
OCHSNER - RITTER - GSSELL - SCHLAICH - CHRIST

SCALE 1:500.000

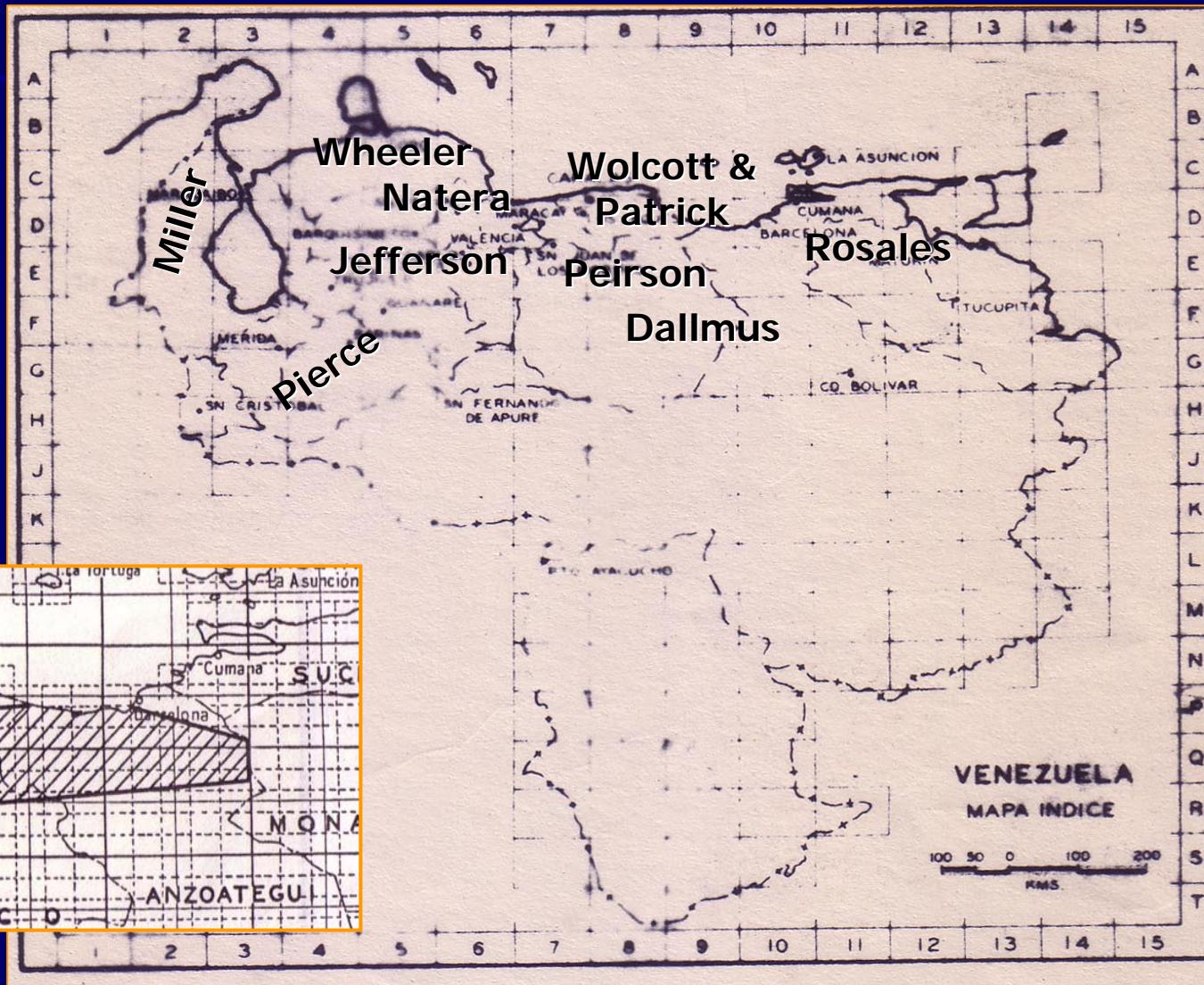
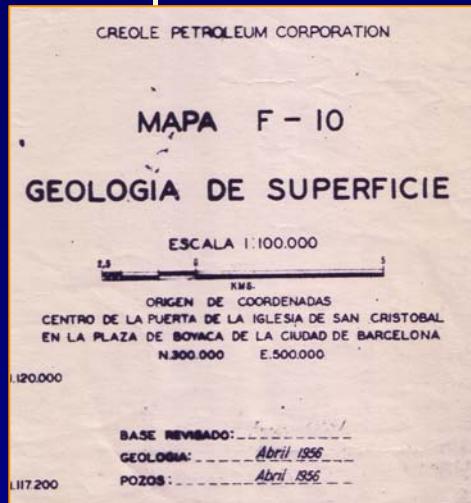
0 3 6 9 12 15 18 hr

1937 L. Kehrer & E. Künding

1938 L. Kehrer & E. Kündig



*1950´s – 1960´s -Proyecto de integración geológica- Creole Petroleum Corporation

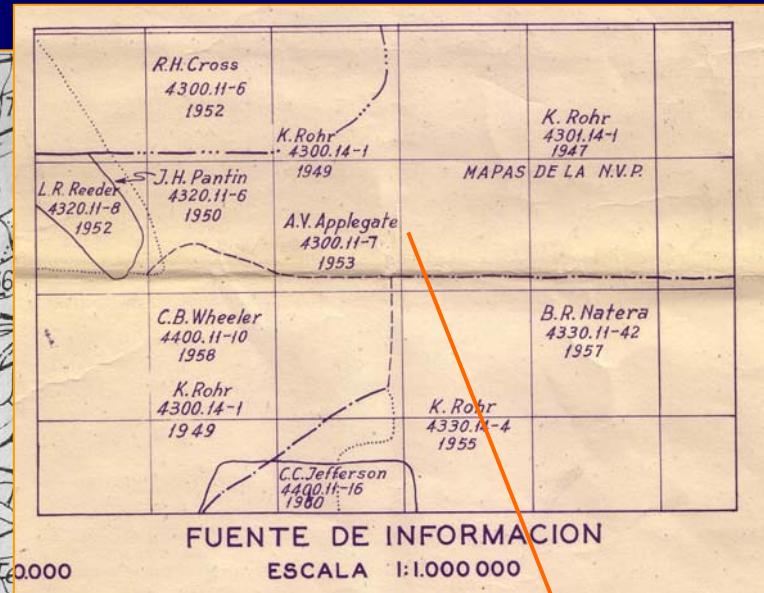
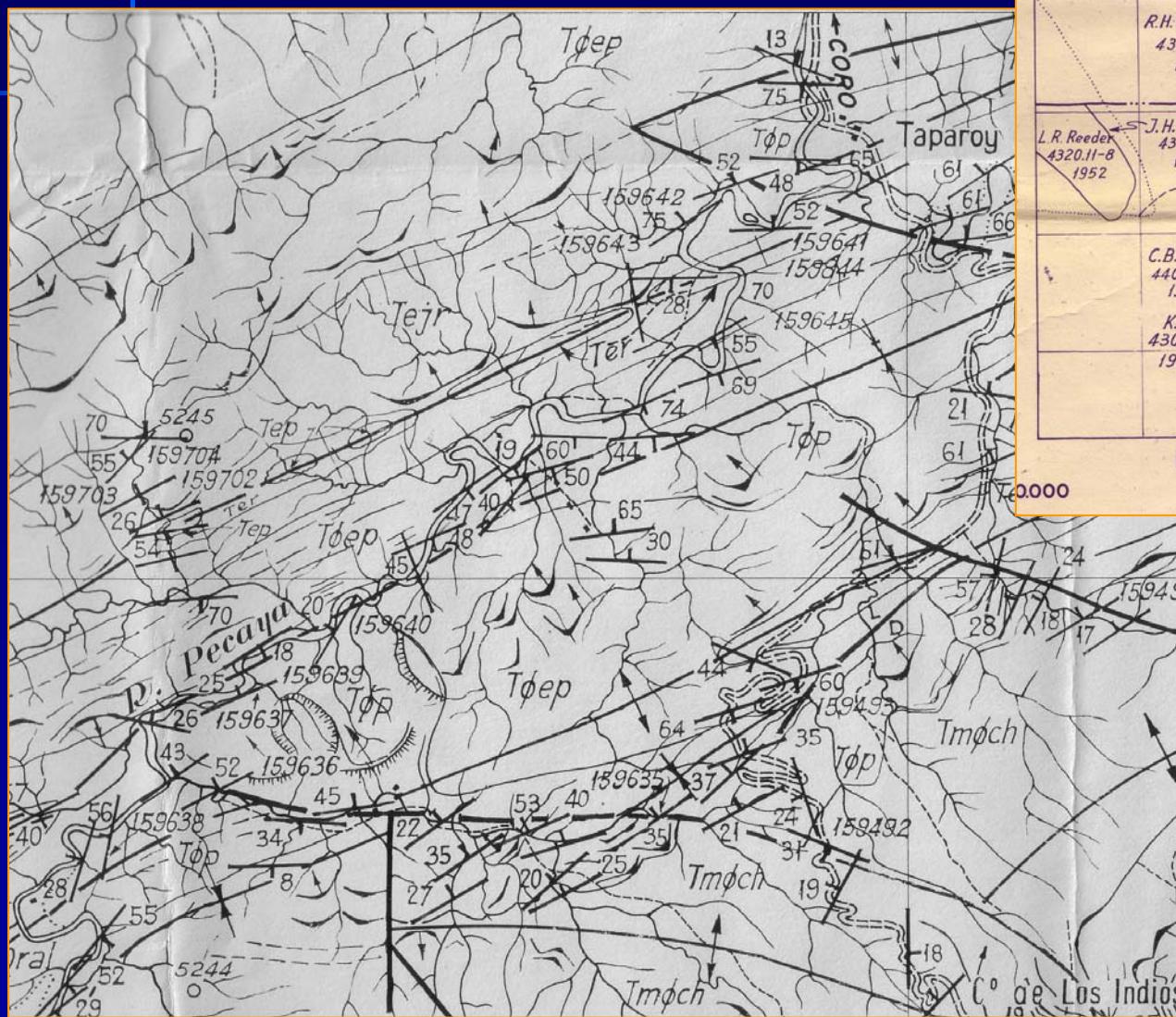


Peirson A. L.

*1950's - 1960's

-Proyecto de integración geológica-

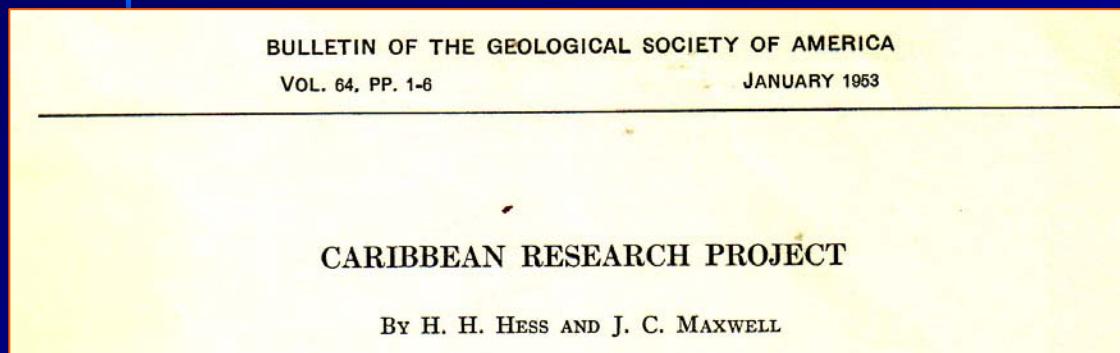
Creole Petroleum Corporation



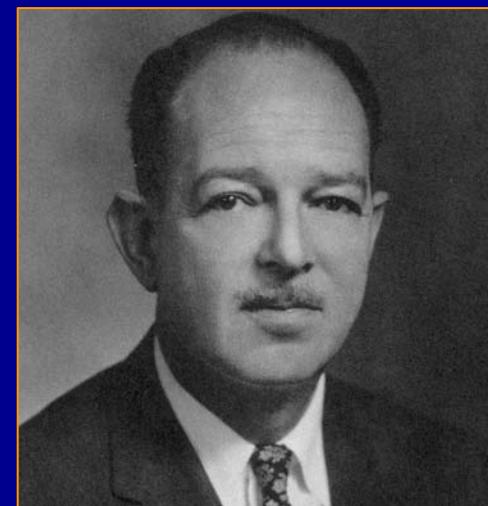
1947-1976

-Proyecto de Investigaciones Geológicas del Caribe de la
Universidad de Princeton y otras-

Harry Hammond Hess (1906-1969)



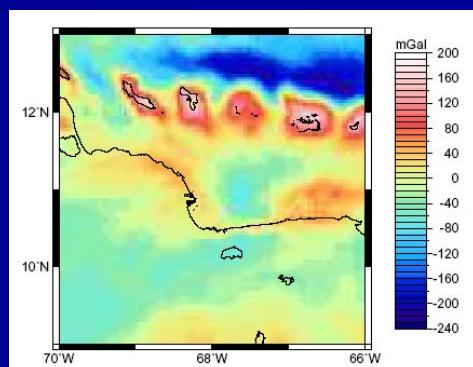
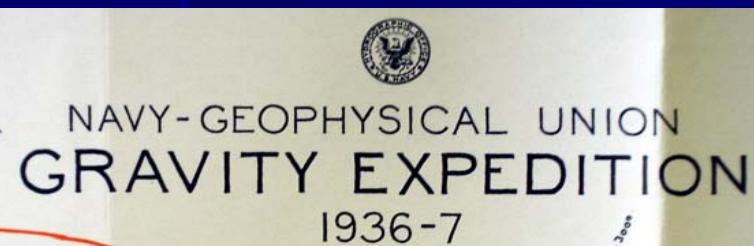
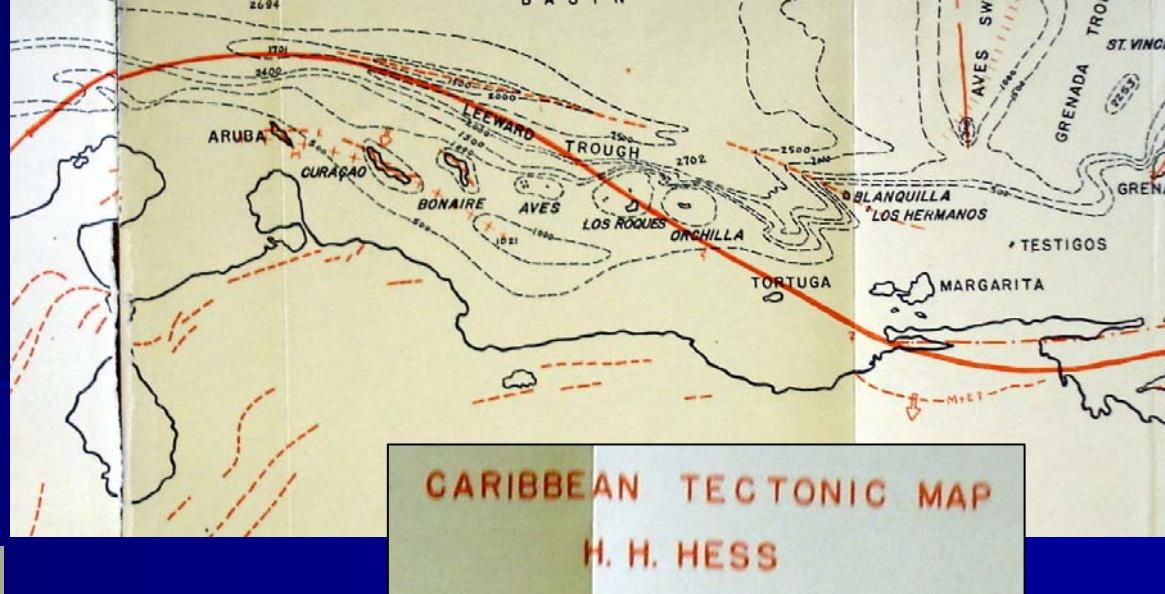
The beginning of this research stems from the work of R. M. Field in the Bahamas during the late 1920's. This led to an invitation to Vening Meinesz to participate in a gravity-measuring cruise of the U.S.S. Submarine S-48 (Hess, 1933) and in the subsequent cruise of the U. S. S. BARRACUDA with Ewing, Hoskinson, and Hess (Hess, 1938). Since the war



facilitated by a contract between the Office of Naval Research and Princeton University (N6onr-27008), and by generous support of the field mapping in Venezuela by the Dirección de Geología (A. Schwarck Anglade, Director) of the Ministerio de Minas e Hidrocarburos of the Republic of Venezuela.

1938

Harry H. Hess



Cortesía: Dr. Carlos Izarra.

USB. 2005

Harry H. Hess (1906-1969)

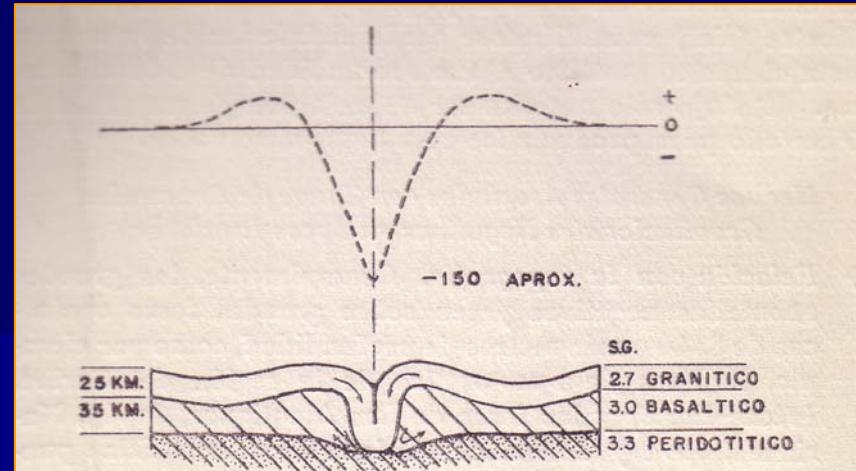
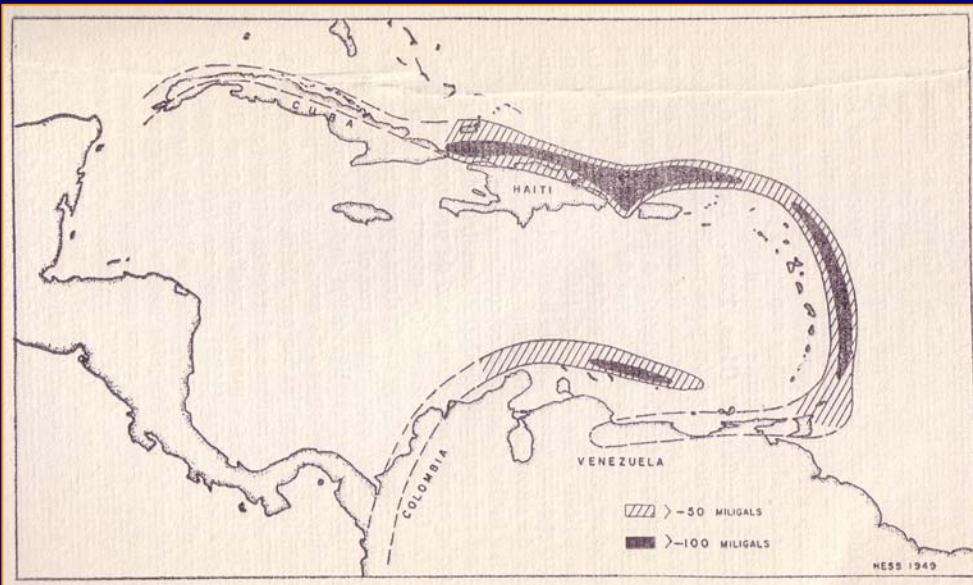


Figura 2.—Interpretación de las anomalías gravitacionales en términos de la estructura de la corteza. La magnitud del plegamiento y la distribución de la densidad necesaria para explicar la curva de anomalías es indicada. Ligeras variaciones en suposiciones acerca de la densidad, espesor de las capas de la corteza, y forma del plegamiento son posibles, sin embargo, ellas no cambiarían la interpretación cuantitativamente.

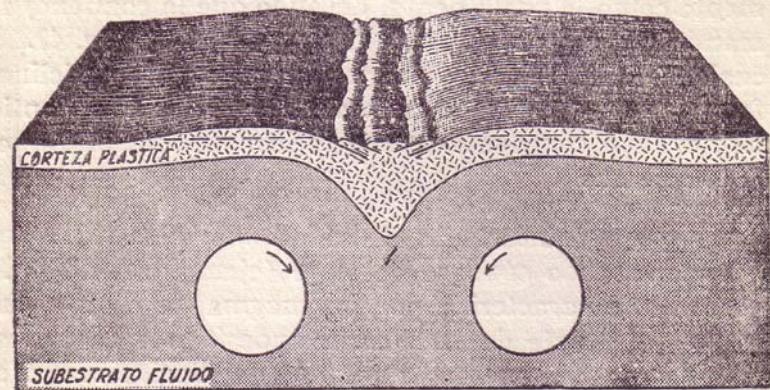
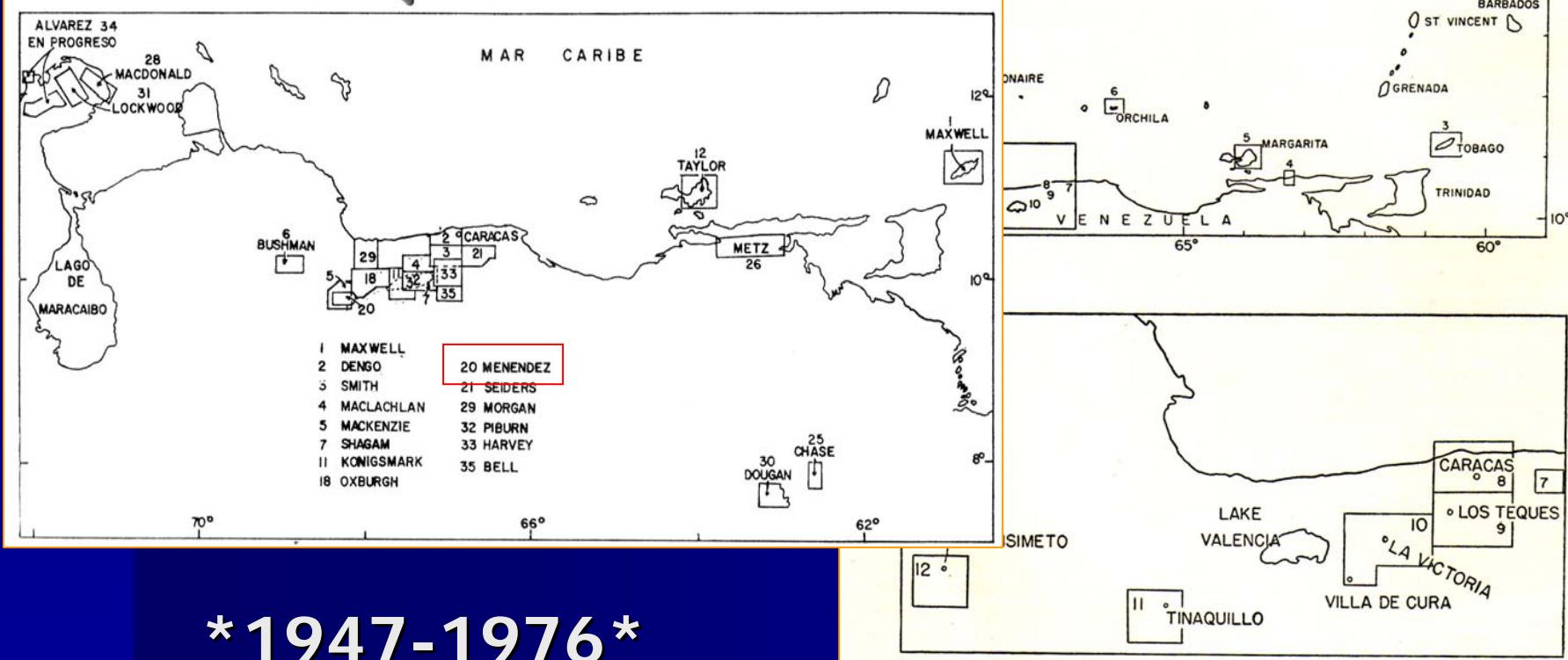


Figura 3.—Experimentos de Griggs. La fuerza aplicada se origina de los cilindros en rotación que provocan corrientes simuladas de convección en el substrato. El efecto de arrastre de las corrientes sobre la corteza produce el plegamiento. Obsérvese el material comprimido en la depresión encima del pliegue y la analogía con el "Barbados Ridge" de la figura 8.



1947-1976

Hess *et al.*

FIGURE 1.—INDEX MAP SHOWING AREAS IN WHICH WORK HAS BEEN COMPLETED OR IS IN PROGRESS

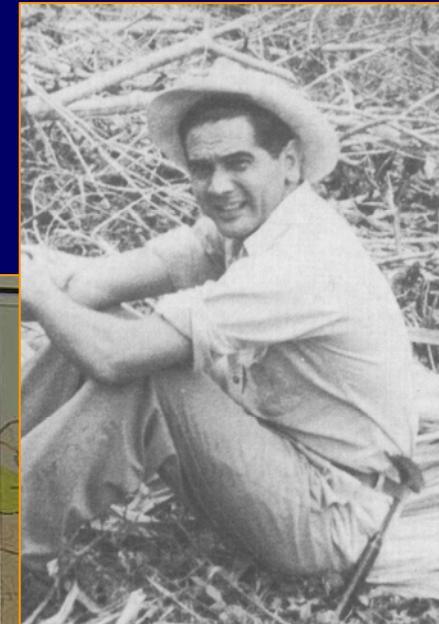
Key

- 1. Christman (1953)
- 2. Christman, in preparation
- 3. Maxwell (1948)
- 4. Maxwell-Dengo (1951)
- 5. Hess-Maxwell (1949)
- 6. Hess, unpublished report
- 7. Hess-Dengo, unpublished report
- 8. Dengo (1951; 1953)
- 9. Smith (1953)
- 10. MacLachlan, in progress
- 11. MacKenzie, in progress
- 12. Bushman, in progress
- 13. Maxwell, reconnaissance of older rocks, unpublished report

Gabriel Dengo Memorial Award

1951

Gabriel Dengo (1922-1999)



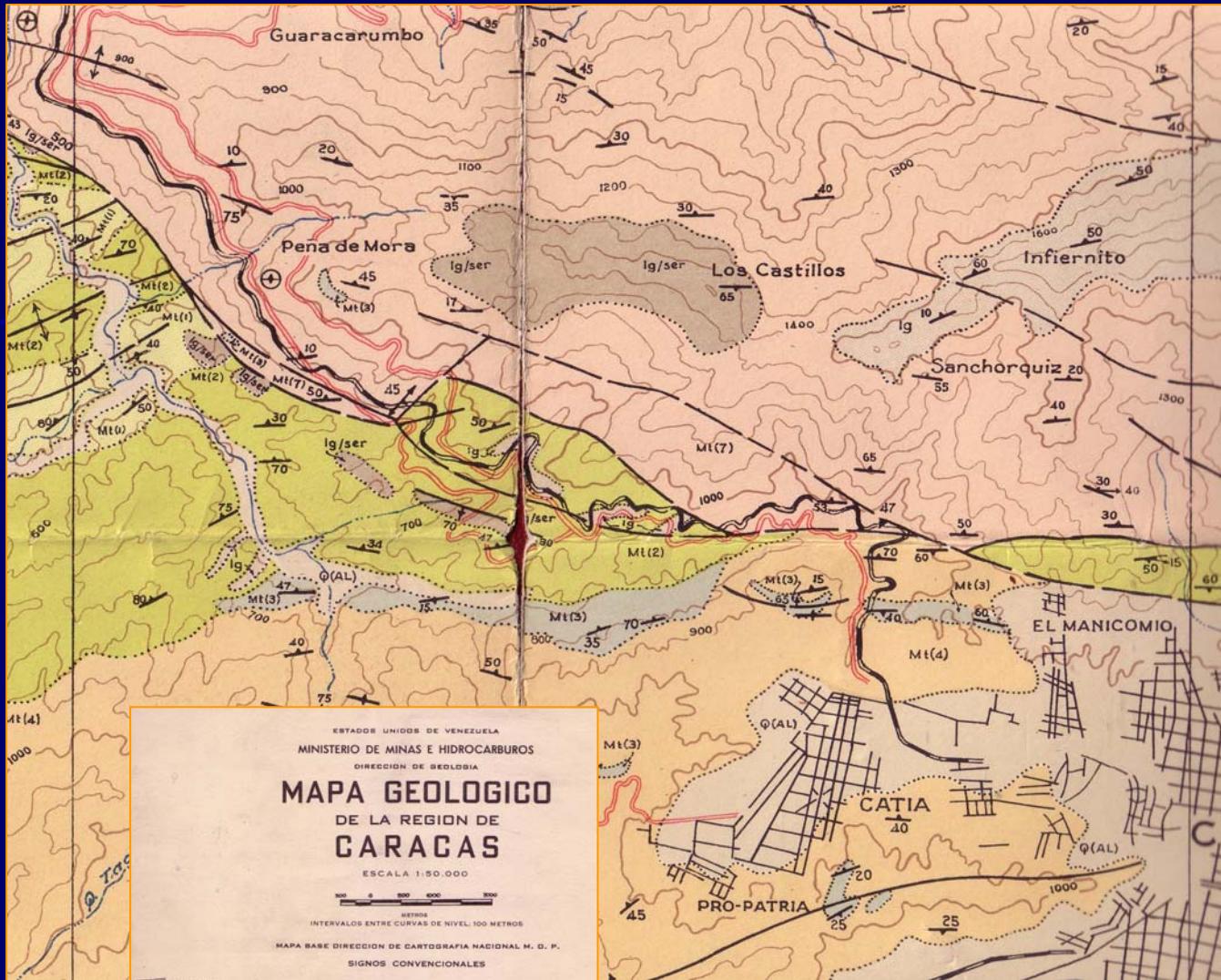
1951

Dengo

CARTAS ADYACENTES		
PTO. MAYA 2402	LA GUAIRA 2403	CABO CODERA 2501
MARACAY 2405	LOS TEQUES 2406	CAUCAGUA 2504
SAN JUAN DE LOS MORROS 2408	CAMATAGUA 2409	ALTAGRACIA DE ORITUCO 2507

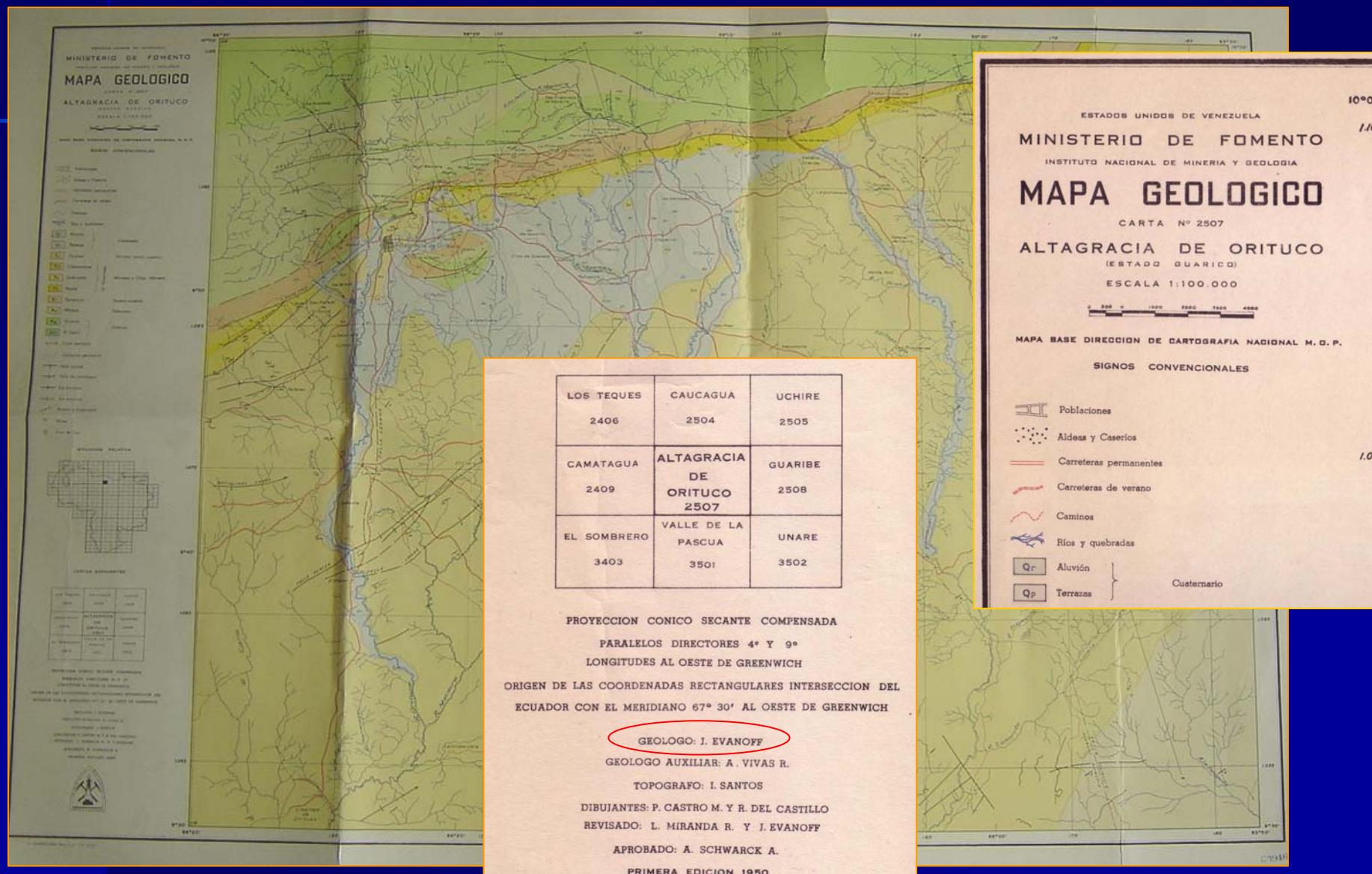
GEOLOGO: GABRIEL DENG
REVISADO: LEANDRO MIRANDA RUIZ
DIBUJADO: R. F. DEL CASTILLO Y PEDRO CASTRO MARTIN
APROBADO: A. SCHWARCK ANGLADE

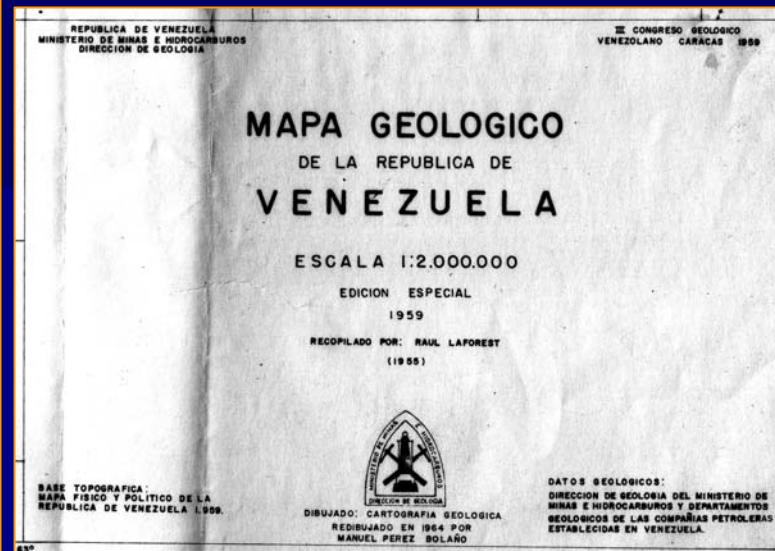
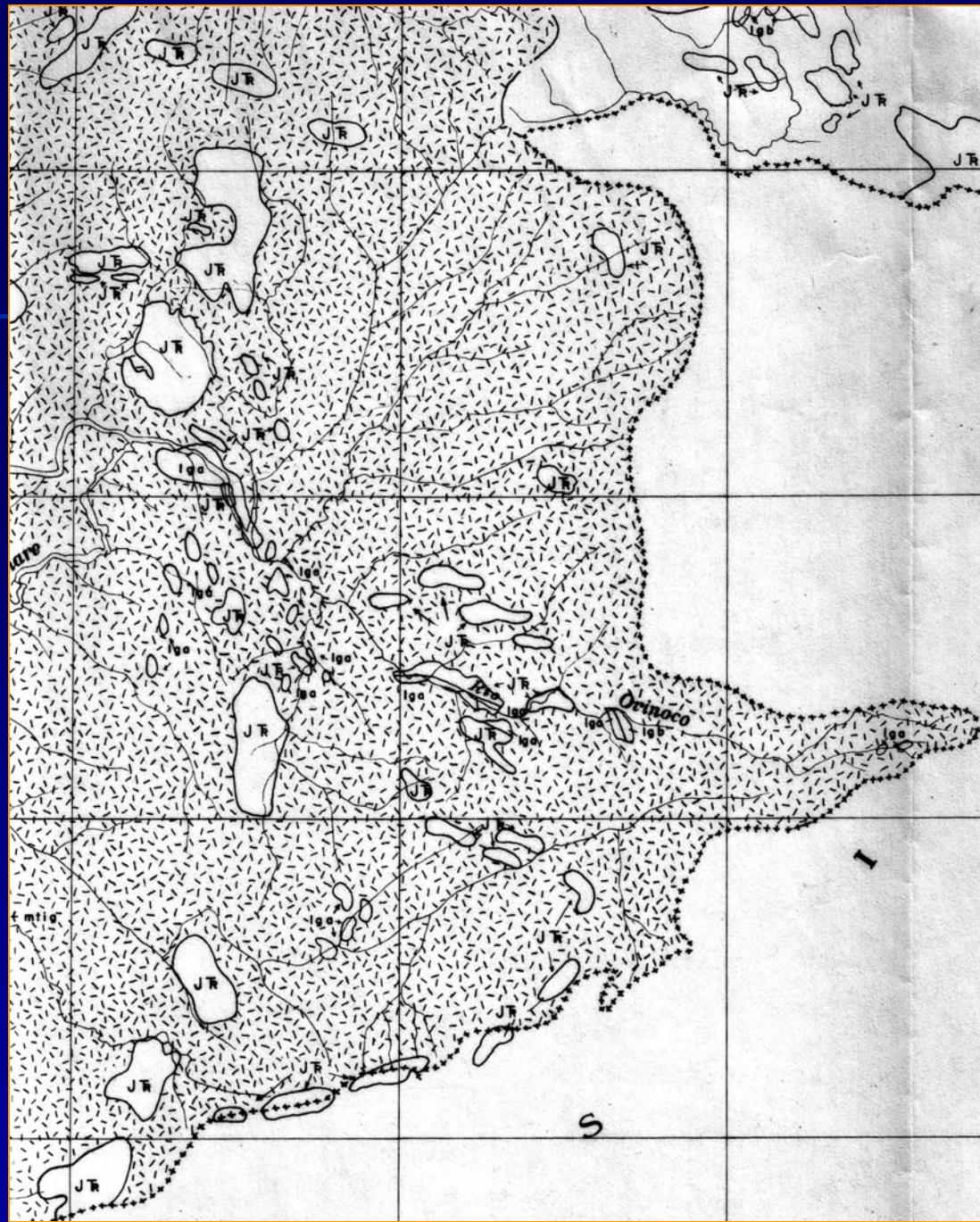
PRIMERA EDICION 1951



>1950

M.F., M.M.H.





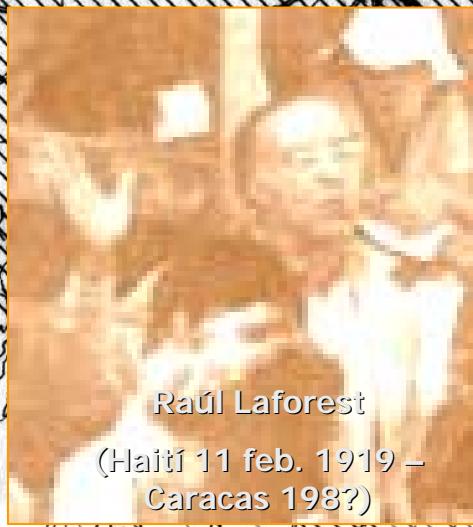
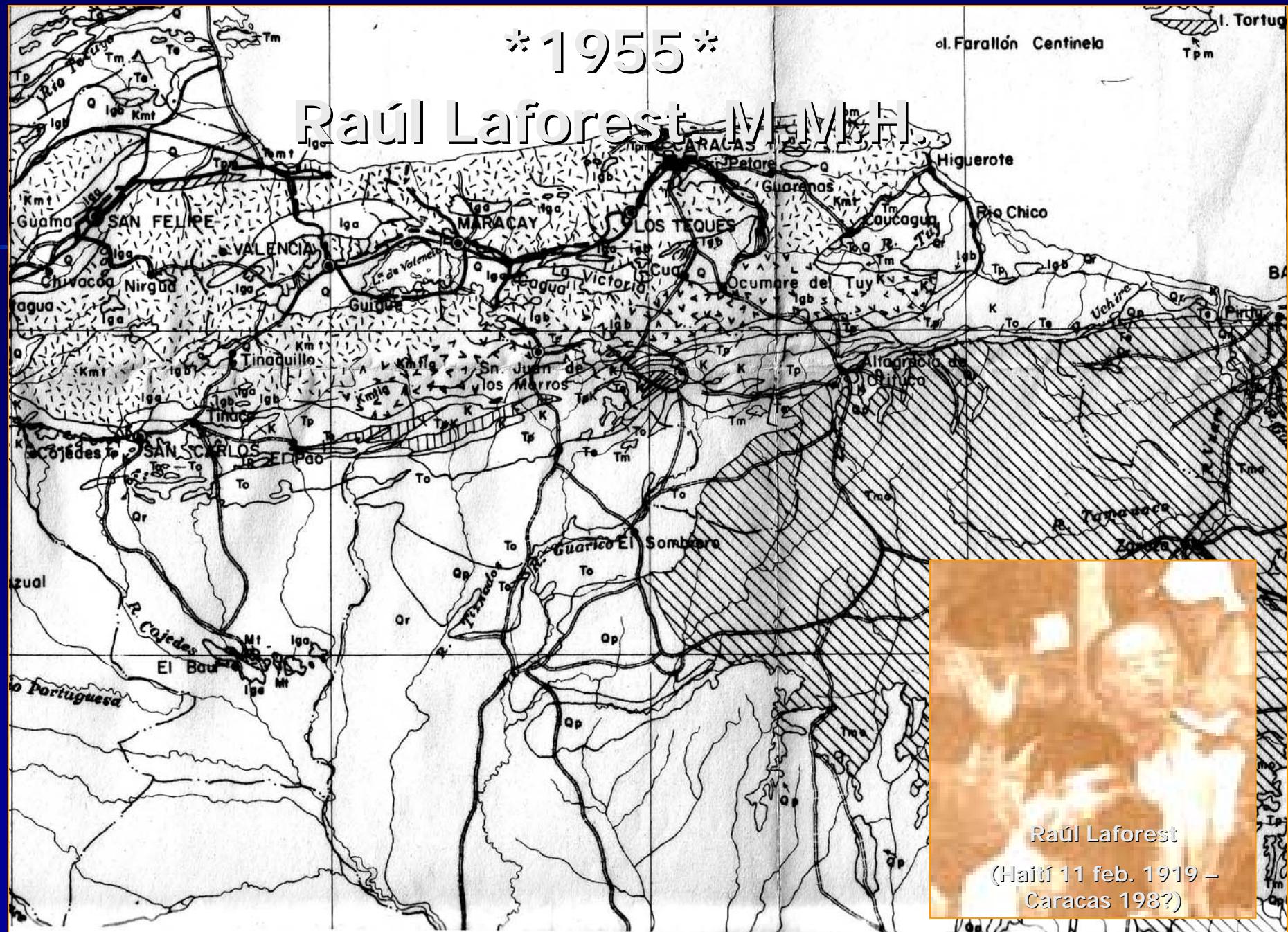
1955, 1959
Raúl Laforest.
M.M.H.
1:1.000.000
1:2.000.000

* 1955 *

Raúl Laforest

ol. Farallón Centinela

I. Tortug
Tp m



1950-1975

Ministerio de Minas e Hidrocarburos

MAPAS QUE PUEDEN ADQUIRIRSE EN LA
DIRECCION DE GEOLOGIA
MINISTERIO DE MINAS E HIDROCARBUROS
EDIFICIO BANCO CARACAS — VEROES A SANTA CAPILLA

Escala	Título del Mapa
1:1.000.000	Geológico de Venezuela
1:2.000.000	Geológico de Venezuela
1:1.000.000	Geológico Tectónico de Venezuela
1:2.000.000	Geológico Tectónico de Venezuela
1:2.000.000	Suelos
1:2.000.000	Fisiográfico
1:25.000	Secciones estructurales de la región de Caracas
1:100.000	Geológico de la Gran Sabana, Edo. Bolívar
Sin escala	Perspectiva angular de la región de Santa Elena de Bolívar
1:25.000	Geológico de Macanao, Edo. Nueva Esparta
1:1.000.000	Geológico-minero de los Edos. Sucre y Nueva ...
1:1.000.000	Geológico-minero del Edo. Falcón
1:2.000.000	Del Oriente de Venezuela en relación con la
1:25.000	Geológico estructural de San Juan de los Mor...
1:25.000	Cuenca Hullera de Lobatera (Estado Táchira)
1:62.500	Estudios geomorfológicos de las islas Coche
1:200.000	Croquis de la parte central de la costa del Edo...

1954

MAPAS DE VENEZUELA QUE PUEDEN ADQUIRIRSE
EN LA DIRECCION DE GEOLOGIA DEL MINISTERIO DE MINAS
E HIDROCARBUROS

ESCALA	TITULO DEL MAPA	Nº DE ACCESO
VENEZUELA		
1:2.500.000	Geológico y Tipos de Rocas de Venezuela	00372
1:2.000.000	Geológico de la República de Venezuela	00382
1:2.000.000	Geológico de Venezuela (Caolín)	00359
1:1.500.000	Geológico de Venezuela (Calizas)	00364
1:1.500.000	Geológico de Venezuela (Arenas)	00358
1:1.500.000	Geológico y de Recursos Minerales de Venezuela	00357
1:250.000	Geológico-Tectónico Generalizado de la Parte Occidental de la Región Central de la Cordillera de la Costa, con 2 hojas de cortes anexos	02219
1:6.000.000	Mapa de Recursos Minerales de Venezuela	00344
1:4.000.000	Mapa Fisiográfico Republica de Venezuela	00346
1:2.000.000	Mapa del Oriente de Venezuela en relación con la Industria del Hierro	00390
1:2.000.000	Mapa Indice de Estados y Distritos de Venezuela	00369
1:1.500.000	Tipos de Terrenos Región Norte de Venezuela	00356
1:2.000.000	Mapa de Suelos de Venezuela	00376
1:1.000.000	Mapa Geológico-Tectónico del Norte de Venezuela, 2 hojas	02216
1:100.000	Mapa Geológico de los Andes Centrales de Venezuela (Leyenda)	02672
1:100.000	Mapa Geológico Andes Centrales	00288
1:100.000	Cortes geológicos de los Andes Centrales de Venezuela	02670
1:500.000	Mapa Metalogénico Pronóstico de los Andes Venezolanos	02673
1:100.000	Mapa Geológico de la Cordillera de la Costa	00006

1975

MMH, MEM

REPUBLICA DE VENEZUELA
MINISTERIO DE MINAS E HIDROCARBUROS
DIRECCION DE GEOLOGIA

MAPA GEOLOGICO DE LA CORDILLERA DE LA COSTA ZONA CENTRO OCCIDENTAL EDOS. COJEDES-CARABOBO-ARAGUA

ESCALA 1:100.000
KILOMETROS

GEOLOGIA POR:

LUIS A GONZALEZ SILVA

FOTOGEOLOGIA: A. SABATER D.

REVISADO: A. BELLIZZIA G.

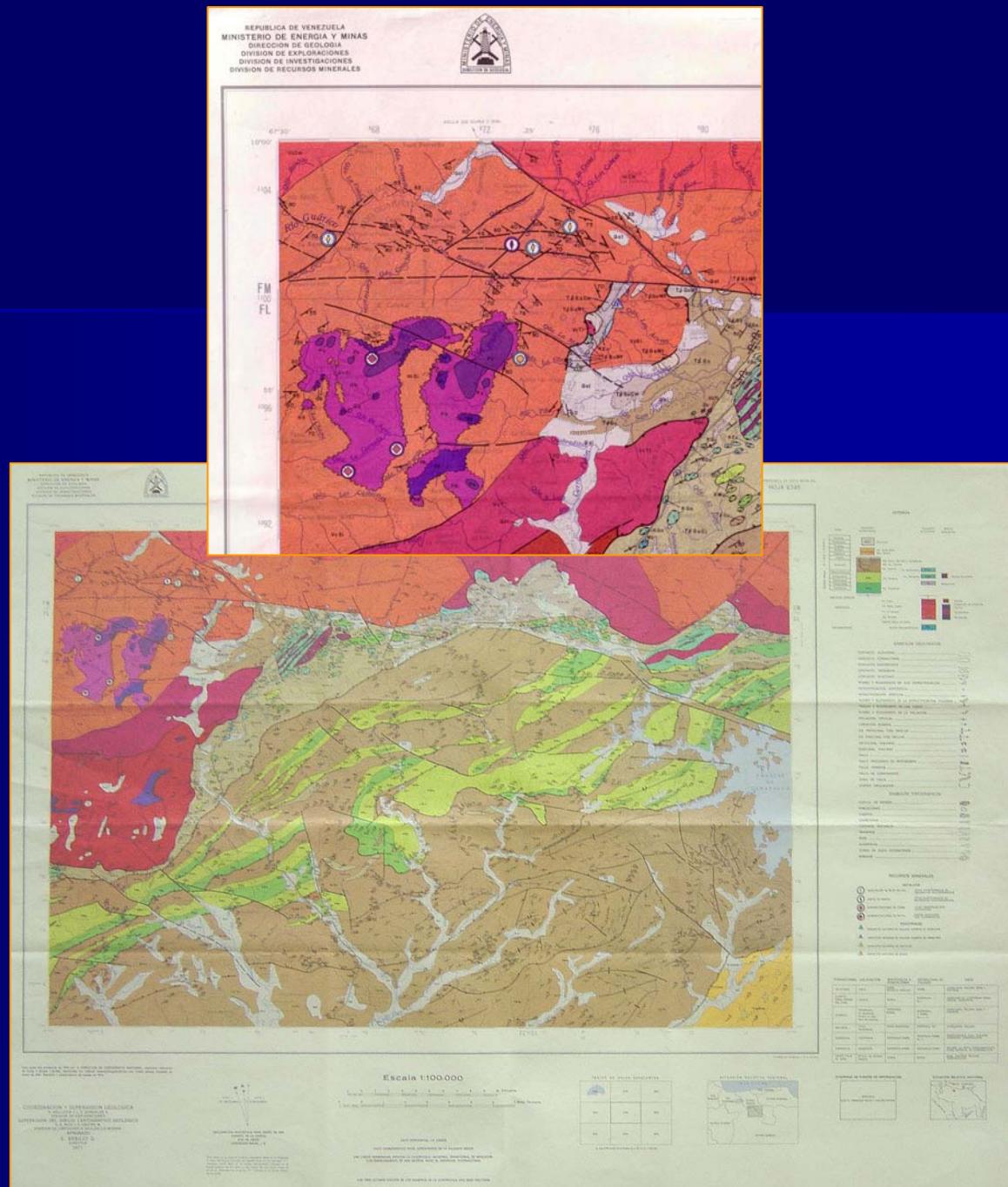
APROBADO: E. ARAUJO Q.

DIRECTOR

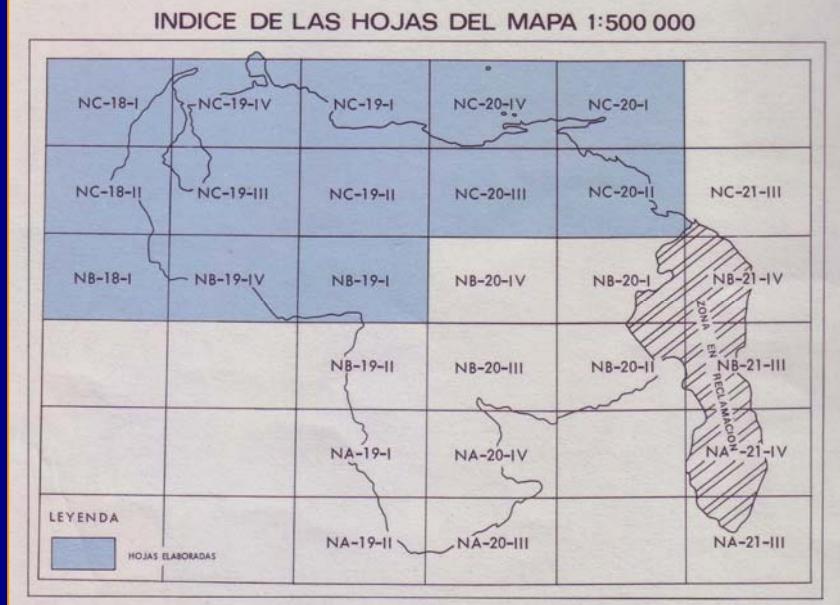
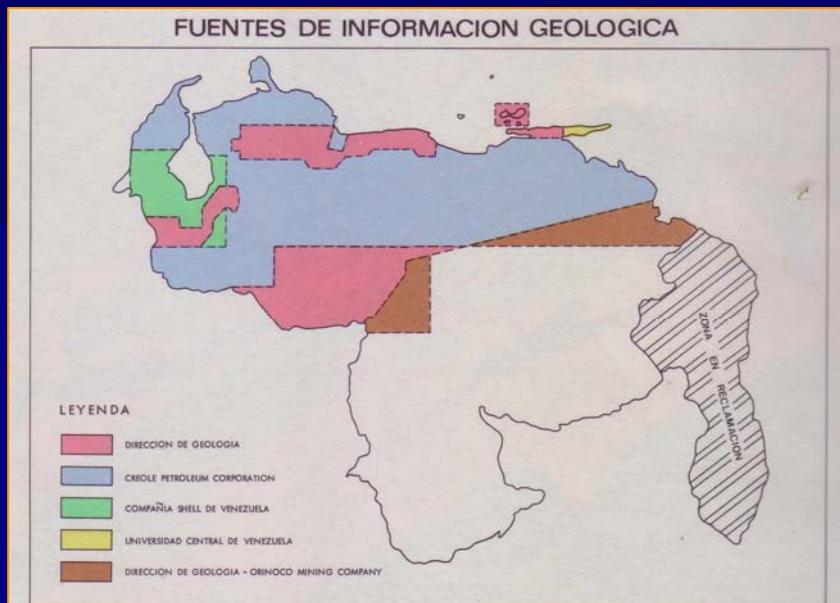
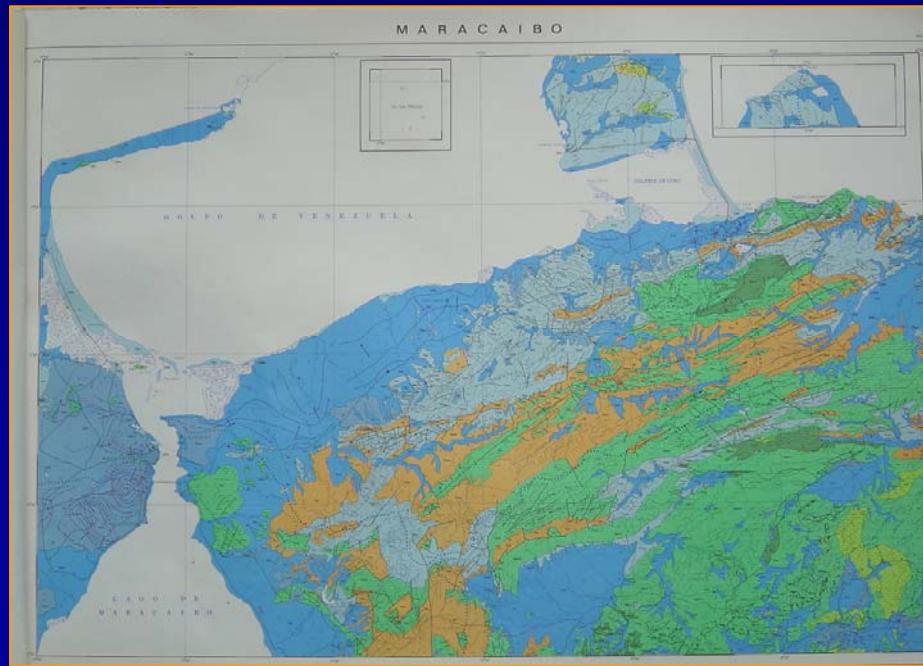
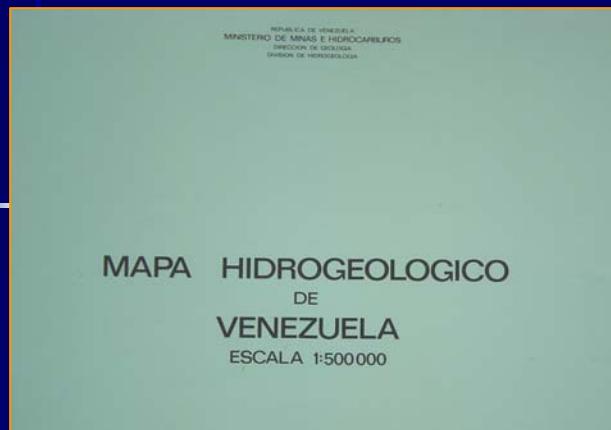
CARACAS: JULIO DE 1969

IV CONGRESO GEOLOGICO VENEZOLANO

Luis González Silva (1930-1991)
Xavier Picard (1940-1980)



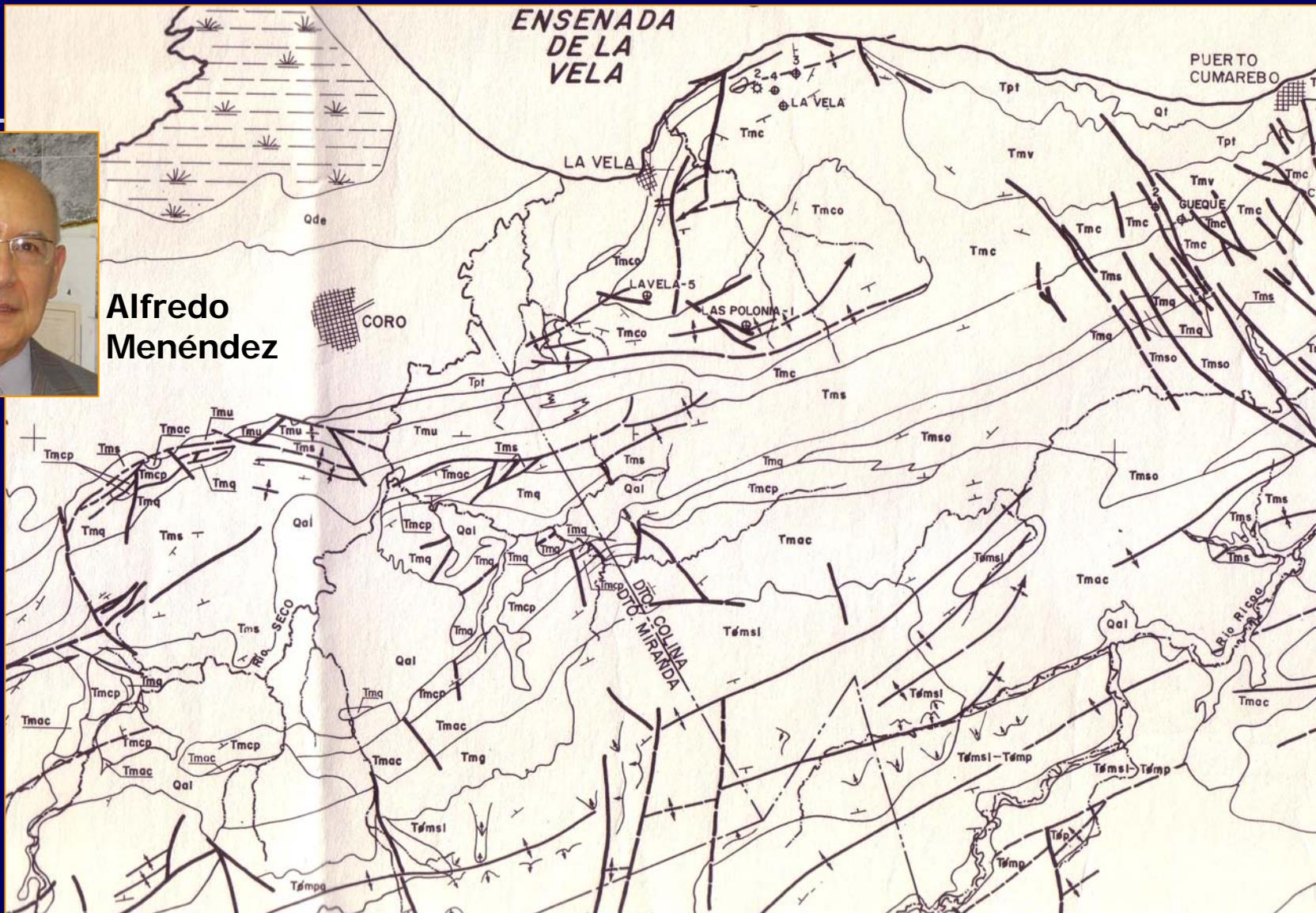
1972 M.M.H. - Mapa Hidrogeológico



1972 M.M.H. Mapa Hidrogeológico



Alfredo
Menéndez

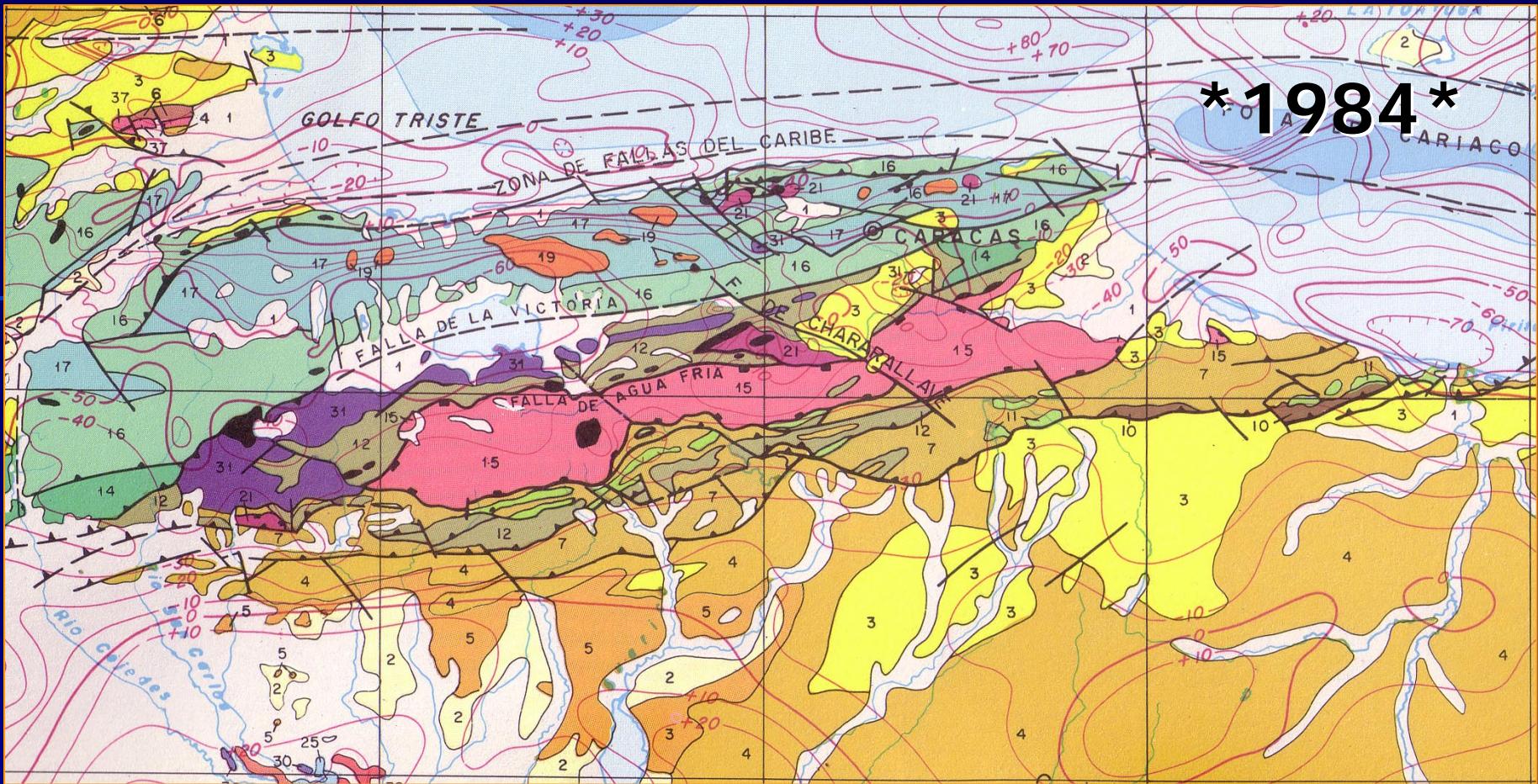




1976 M.M.H.

1:500.000

A. Bellizzia, N. Pimentel & R. Bajo



MAPA GEOLOGICO ESTRUCTURAL DE VENEZUELA

ESCALA 1:500.000

ESCALA GRAFICA

Proyección cónica conforme de Lambert (Dato horizontal: provisional de Sur América)

Preparado en la División de Exploraciones Geológicas

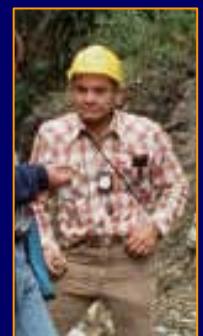
Compilado e integrado por:

Alirio Bellizzi G., Nelly Pimentel M. y Rosario Bajo O.

Tm	MIOCENO
To-Tm	OLIGOCENO - MIOCENO Formación Quebradón diferenciada Serranía del Interior
To	OLIGOCENO
Te-To	EOCENO - OLIGOCENO

Algunos geólogos del MMH y MEM

Armando Useche
(1931-1995)



Alírio Bellizzia



Luís González Silva



Ignacio Fierro



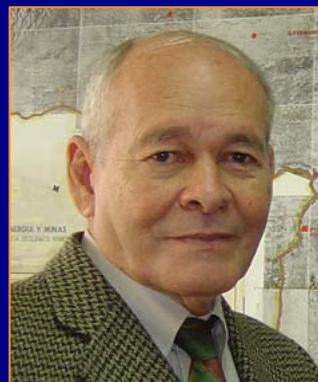
Raúl García Jarpa



Nesim Benaim



Alfredo Menéndez



Aníbal Espejo



Juan H. Ríos

1962
Foster D.
Smith

PRIMER CONGRESO VENEZOLANO DE PETROLEO
MARZO 1962

MAPA GEOLOGICO - TECTONICO DEL NORTE DE VENEZUELA

Coordinador: Dr. Foster D. Smith, Jr., Mobil Oil Co. de Venezuela

Preparado por el Personal Técnico de las Entidades siguientes:

Compañia Shell de Venezuela

Creole Petroleum Corporation

Mene Grande Oil Company

Ministerio de Minas e Hidrocarburos

Mobil Oil Co. de Venezuela

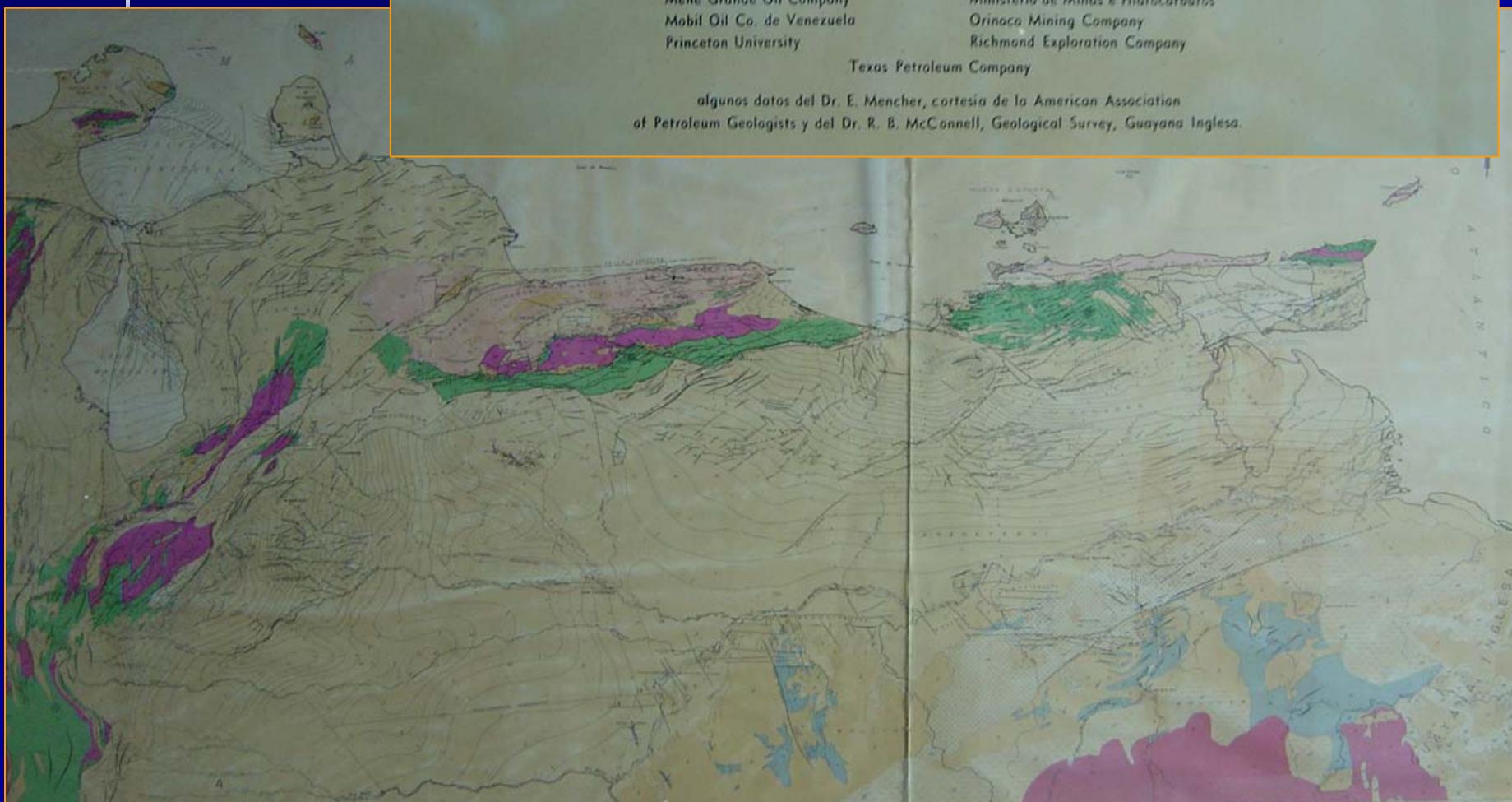
Orinoco Mining Company

Princeton University

Richmond Exploration Company

Texas Petroleum Company

algunos datos del Dr. E. Mencher, cortesía de la American Association
of Petroleum Geologists y del Dr. R. B. McConnell, Geological Survey, Guayana Inglesa.



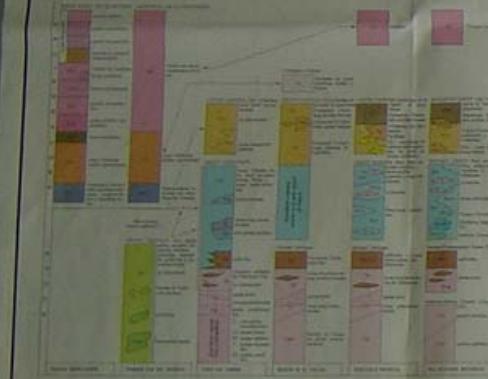
MAPA GEOLOGICO
DE LA REGION SEPTENTRIONAL DEL
ESCUDO DE GUAYANA
VENEZUELA

ESCALA: 1:500,000

0 10 20 30 40 50 60

DATOS GEOLOGICOS
Orinoco Mining Company
Ministerio de Minas & Hidrocarburos
Compañia Shell de Venezuela
British Guiana Geological Survey

BASE TOPOGRAFICA
Compañia Shell de Venezuela



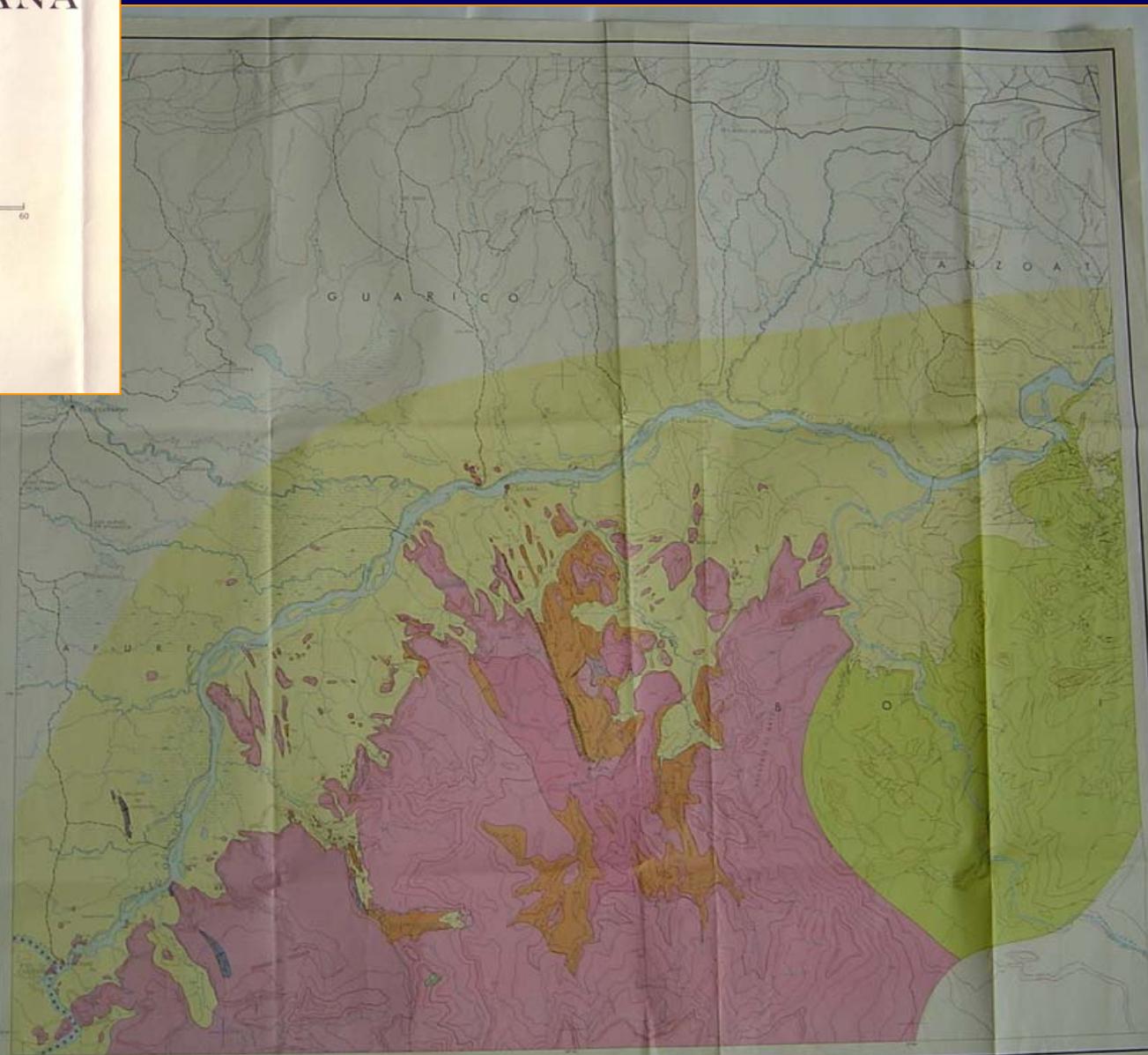
COMPLICACIONES TERRITORIALES DE 1968
ESTACIONES RELATIVAS

LEGENDA

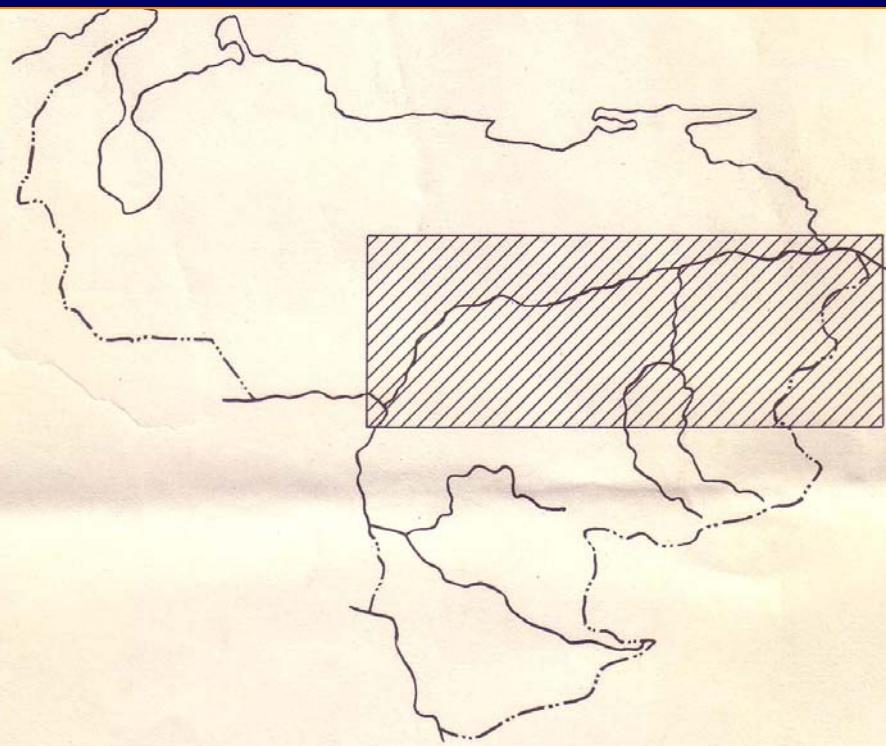
NOTAS

NOTA: La información contenida en este mapa es de carácter confidencial y solo debe ser utilizada por las autoridades competentes y sus funcionarios. No se permite su divulgación ni su uso para fines comerciales sin el consentimiento explícito de la autoridad competente.

1968 Orinoco Mining Co.



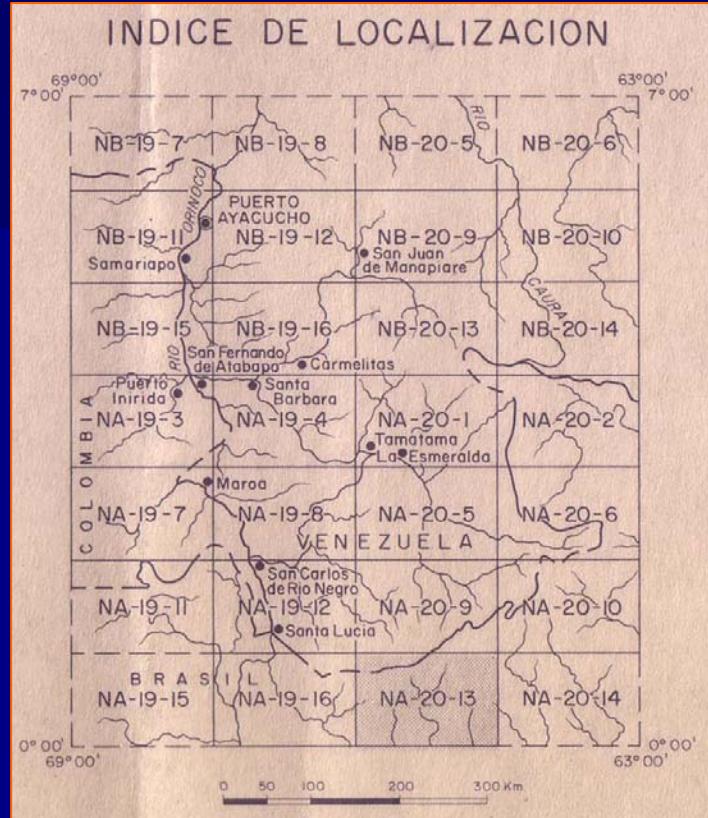
1968 Orinoco Mining Co.



COMPILADO POR G.C. McCANDLESS, M.S. DEL DEPARTAMENTO DE GEOLOGIA
DE LA ORINOCO MINING COMPANY, CON BASE EN LOS LEVANTAMIENTOS REGIONALES
REALIZADOS POR EL DEPARTAMENTO, E INTEGRADO CON LOS MAPAS
E INFORMES PUBLICADOS POR EL MINISTERIO DE MINAS E HIDROCARBUROS,
LA COMPAÑIA SHELL DE VENEZUELA Y EL SERVICIO GEOLOGICO DE LA
GUAYANA INGLESA

DIBUJADO: M. HERNANDEZ V.
SUPERVISADO: A. SCHWARCK ANGLADE
APROBADO: S. LUCHSINGER

1971-1974 Codesur



REPUBLICA DE VENEZUELA MINISTERIO DE OBRAS PUBLICAS COMISION PARA EL DESARROLLO DEL SUR DE VENEZUELA CODESUR			
TITULO	LEVANTAMIENTO DE RADAR DEL TERRITORIO FEDERAL AMAZONAS VENEZUELA		
DESCRIPCION	INTERPRETACION GEOLOGICA		
HOJA N°	NA-20-13	ESCALA 1:250,000	CODIGO CODESUR
TOTAL DE HOJAS	21	FECHA 1971	CODESUR f-5
ELABORADO POR	INTERNATIONAL AERO SERVICE CORPORATION		
REVISADO POR	APROBADO POR <i>Alvaro Flores</i>		



1971-1974 Codesur

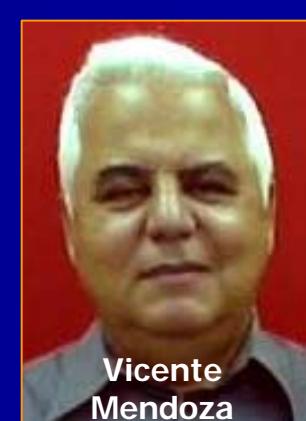
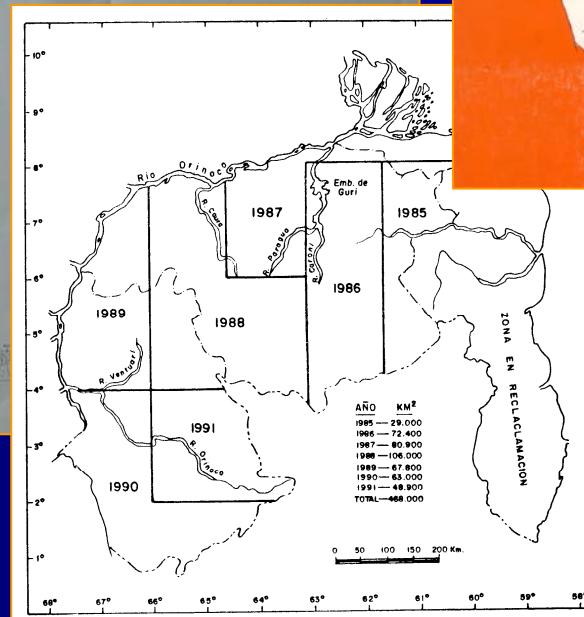
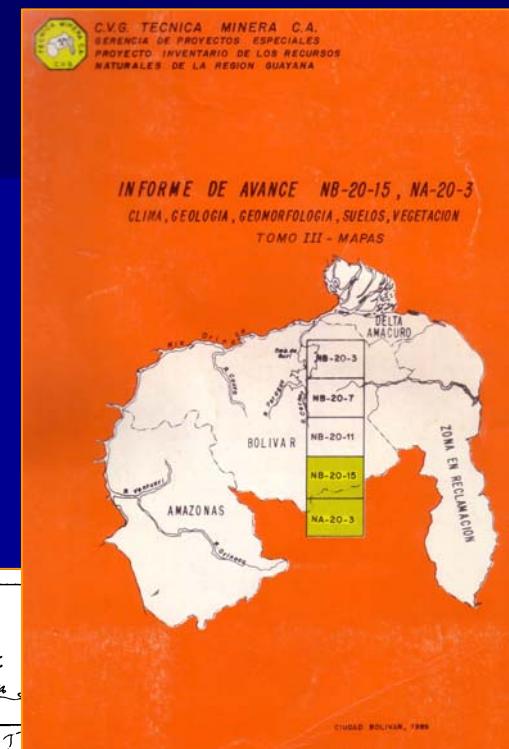
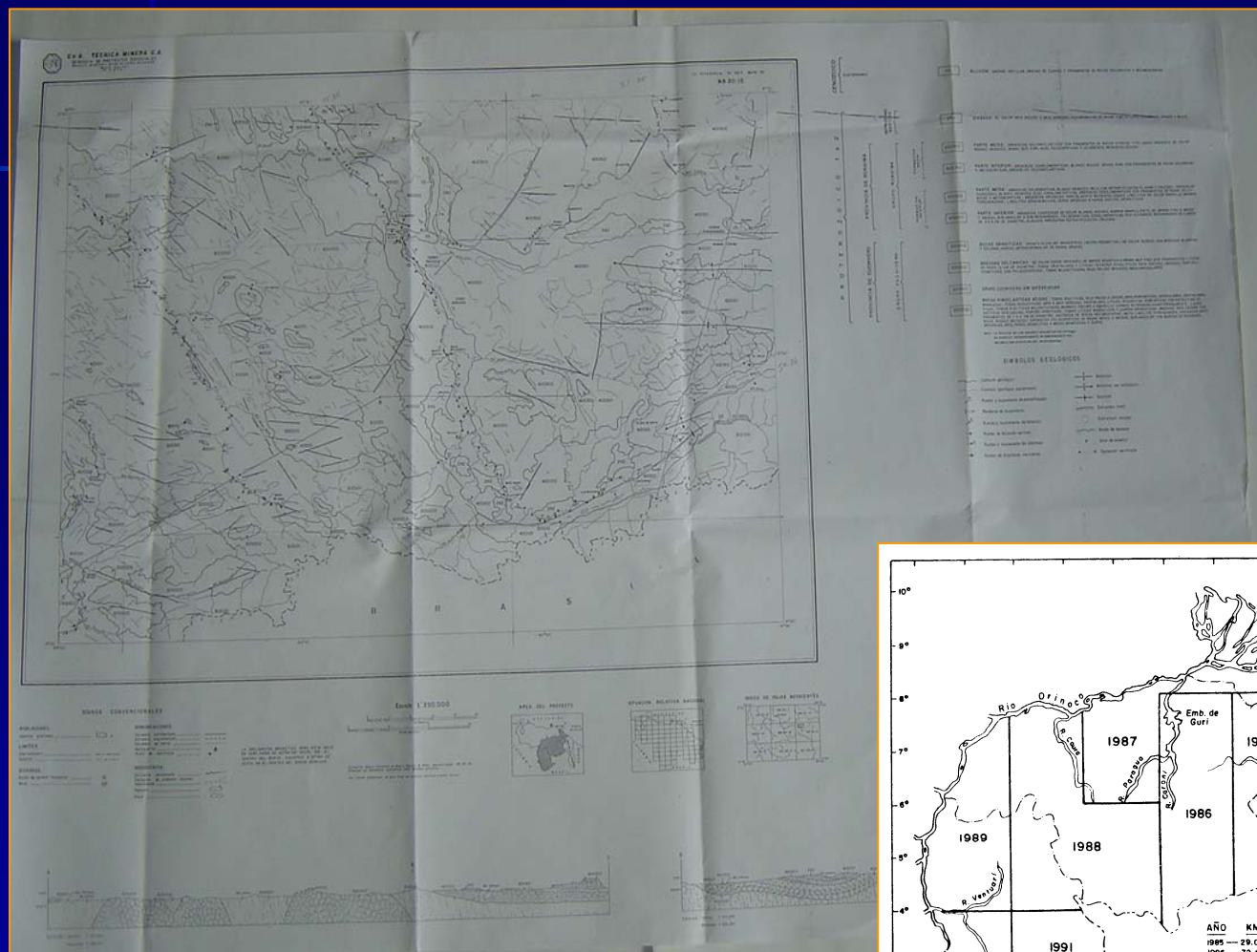


Pablo Colvée

Suhas Talukdar

Eugenio Szczerban

1985-1991

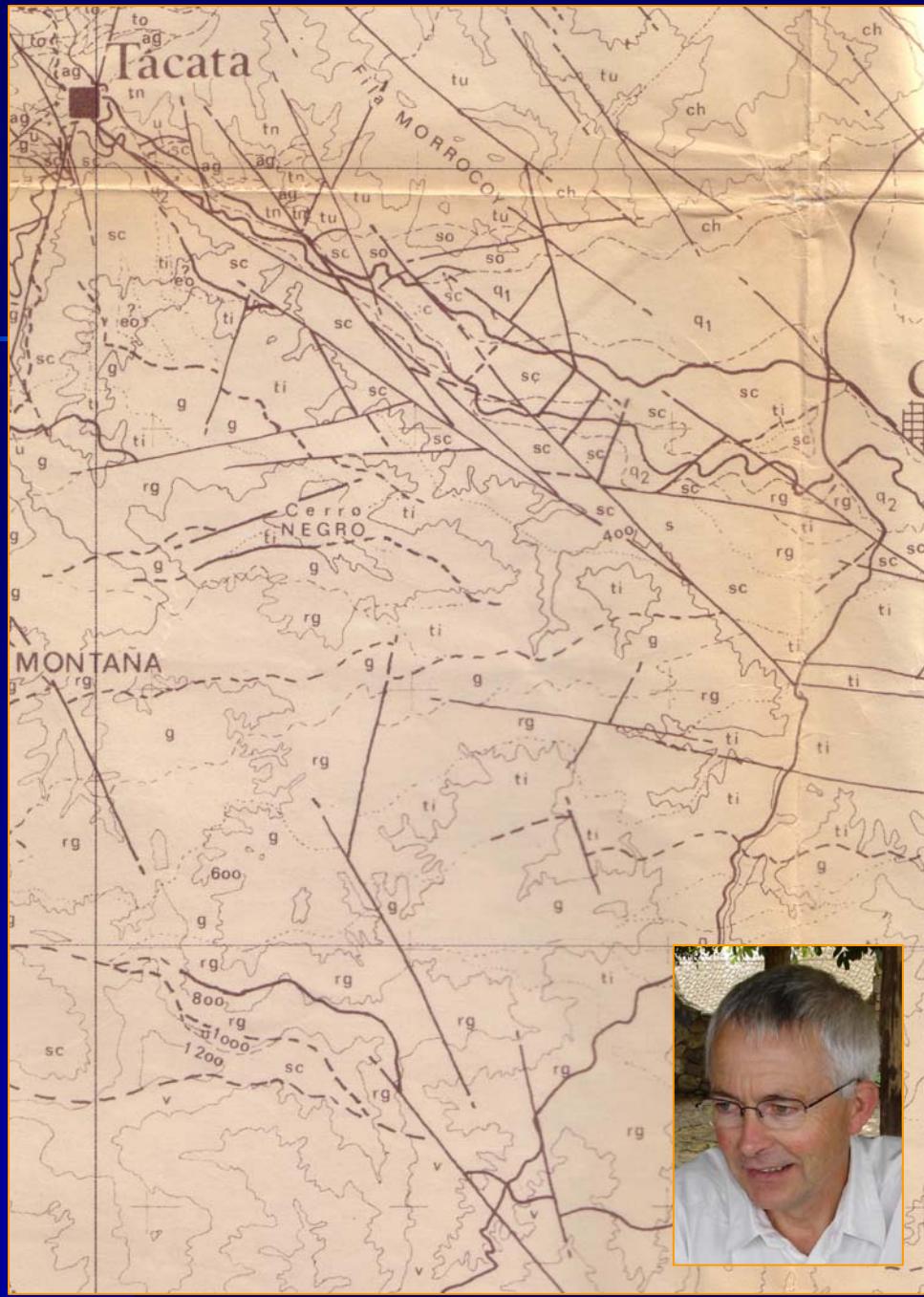


1985-1991 CVG- TECMIN

CENOZOICO	PROVINCIA DE PASTORAL	COMPLEJO DE SUPAMO	GRUPO INYACAM	05	ALUVION: ARENAS, LIMOS, ARCILLAS, GRAVAS DE CUARZO Y FRAGMENTOS DE ROCAS VOLCANICAS Y SEDIMENTARIAS
				d	DIQUES DE DIABASAS: DELBADOS Y ALARGADOS
				232	GABROS: METAMORFIZADOS Y NO METAMORFIZADOS
				2227	GRANITOS POTASICOS: DE GRANO MEDIO A GRUESO CON TEXTURA PORFIDICA, HOMOGENEOS, MASIVOS, CON DESARROLLO DE CRISTALES DE MICROCLINO.
				2226	GRANITOS CIRCULARES: POST-TECTONICOS
				2225	GRANITOS ALCALINOS BIOTICOS:
				2222	GRANITOS ALASKITICOS: DE COLOR GRIS CLARO DE GRANO MEDIO A GRUESO, A VECES PESMATITICO Y TEXTURA HIPANTOMORFICA. PRESENTA LINEACION.
				2125	TRONDIHJEMITAS Y GRANODIORITAS
				2124	PARGNEISES CUARZO: FELDESPATICOS BIOTITICOS ALTERNOS CON CAPAS LENTICULARES DE ANFIBOLITAS Y GNESES HORNABLENDICOS.
				2123	ZONA DE MIGMATITAS: PARGNEISES BIOTITICOS GNEISES HORNABLENDICOS ANFIBOLITAS QUE ALTERNAN CON SILLS DE TRONDIHJEMITA Y GRANODIORITA.
MESOZOICO	SUPER GRUPO PASTORAL	GRUPO CARICHAPAO	GRUPO CABALLAPE	2122	GRANITOS SODICOS: DE GRANO FINO A MEDIO.
				2121	COMPLEJO DE SUPAMO (S.D.): ROCAS GRANITICAS: SODICAS PARGNEISES, MIGMATITAS, CUERPOS GRANODIORTICOS Y ALGUNAS PESMATITAS.
				203205	PARTE MEDIA: VOLCANICAS PIROCLASTICAS META-CUARZO ANDESITAS, META-ANDESITAS Y META-MICROPORFIOS GRANITICOS TECTONIZADOS.
				203200	FORMACION CABALLAPE: SIN DIFERENCIAR META-CONGLOMERADOS, META-GRAUVMACAS, META-LIMOLITAS SILICEAS, META-BRECHAS Y TOBAS ANDESITICAS Y DACITICAS. PRESENTAN ESTRUCTURAS TIPICAS DE FLYSCH.
				210103	LAVAS DACITICAS Y BRECHAS DACITICAS: ASOCIADAS, PAQUETES DE FORMACION LENTICULAR EN LA PARTE MEDIA A SUPERIOR DE LA FORMACION.
				210100	META ARENASCAS: CUARZO FELDESPATICOS SERCITICOS Y FILITAS MANGANESEFERA EN LA PARTE INFERIOR META ARENASCAS FELDESPATICAS, META-TOBAS DACITICAS, ESquistos CUARZO FELDESPATICOS Y ESquistos CLORITICOS EN LA PARTE MEDIA A SUPERIOR.
				212200	META-TOBAS: Y META BRECHAS BASICAS Y ULTRABASICAS, ESquistos ANFIBOLICOS, CUARCITAS.
				212102	LAVAS TOLEITICAS: Y ROCAS ASOCIADAS EN LA REGION DE EL CALLAO LA CUAIMA Y CERRO AZUL.
				212101	LAVAS TOLEITICAS: DE AFINIDAD KOMATITICA, ESquistos TALCO-CARBONATICOS Y ANFIBOLITAS.
				212100	LAVAS BASICAS: ANFIBOLITIZADAS (CORUBIMITANAS HORNABLENICAS) LOCALMENTE ANFIBOLITAS Y ESquistos ANFIBOLITICOS CON ESTRUCTURAS DE ALMONDILLAS, EN PARTE MAGNESIANAS, Y OTRAS TOLEITICAS.
PROTEROZOICO	SUPER GRUPO PASTORAL	GRUPO CARICHAPAO	GRUPO CARICHAPAO (S.D.)	212001	GRUPO CARICHAPAO (S.D.): PARTE INFERIOR: LAVAS BASALTICAS-ANDESITICAS DE COLOR VERDE GRIS VERDOSO Y VERDE NEGRUCAS, A VECES ALMONDILLADAS A VECES MARIAS, A FOIJADAS ASOCIADAS A META-IMOLITAS META-LITICAS, CRYSTALLINAS, ANDESITICAS, SILLS FELSDIOS Y MAFICOS, CURIQUITAS FERROUSAS, ANFIBOLITAS Y ORTOLITAS-IRONITICAS.
				212000	GRUPO CARICHAPAO (S.D.): ANFIBOLITIZADAS DE GRANO FINO A GRUESO DE COLOR GRIS VERDOSO Y CON LAMINACIONES DE CUARZO DE 2 cm. ALGUNAS PRESENTAN ALMONDILLAS ACHATADAS, OTRAS SON FRAGMENTADAS (BRECHAS). TIENEN AFINIDAD QUIMICA DE TOLEITICAS Y KOMATITICAS.

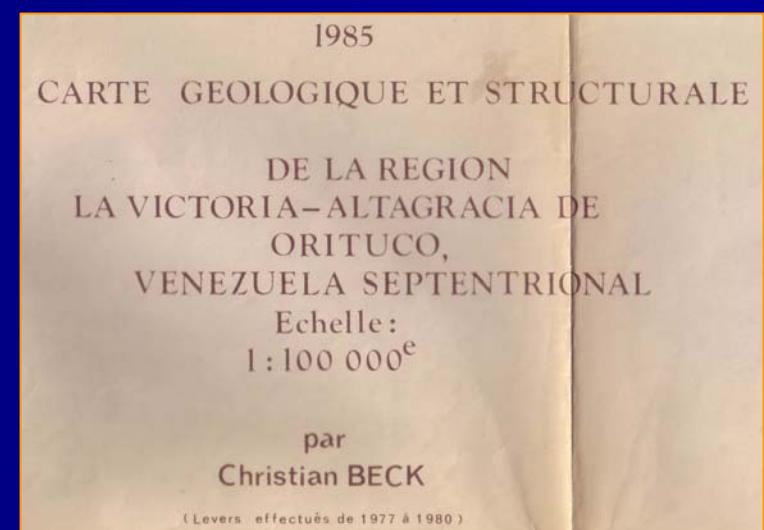
C.V.G. TECNICA MINERA C.A. GERENCIA DE PROYECTOS ESPECIALES PROYECTO INVENTARIO DE LOS RECURSOS NATURALES (P.I.R.N.R.G.)		
MAPA DE GEOLOGIA		
INTERPRETADO:	Yasmin Estanga S., Alfredo Menendez, Javier Romero	
ELABORADO:	Yasmin Estanga S., Alfredo Menendez	
DIBUJADO:	A. Hernandez, G. Herman, A. Saavedra, N. Caraballo, G. Bisconti, M. Nervaez	
REVISADO: Dr. Alfredo Menendez Dr. Galo Yanez, Dr. Henry Briceño	APROBADO: Dr. Galo Yanez	HOJA N°
FECHA:	ESCALA: 1:500,000	REF:
NB 20-3		





* >1974 *

Escuela francesa: Stephan, Beck, Blin

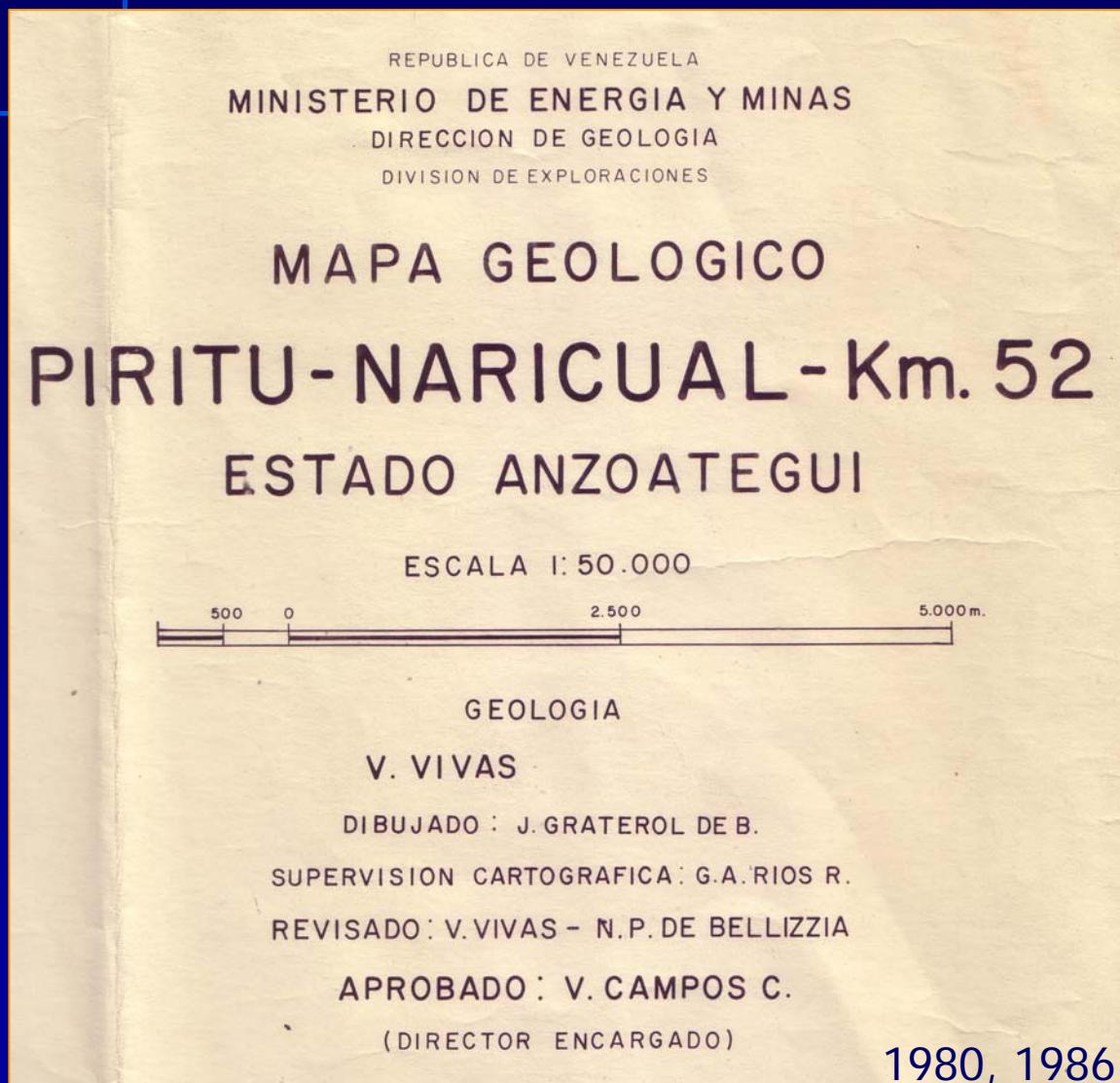


C. Beck

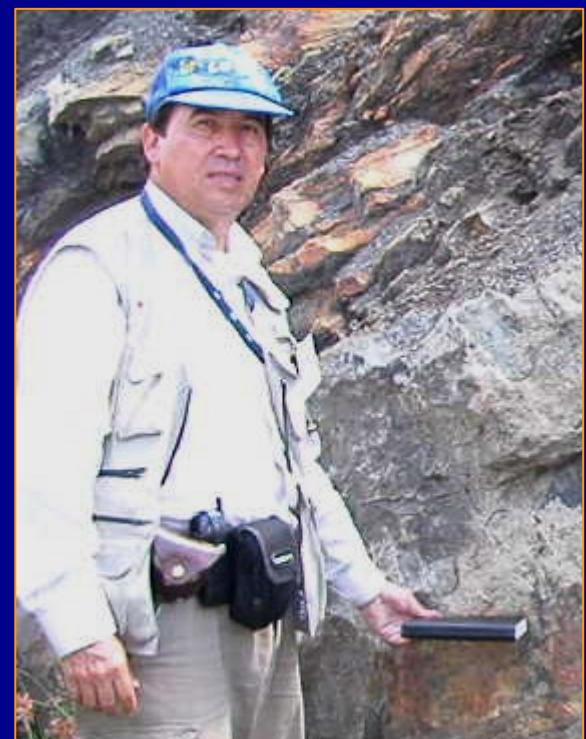
1:100.000

1985, 1986

>1974 Escuela francesa (MEM)

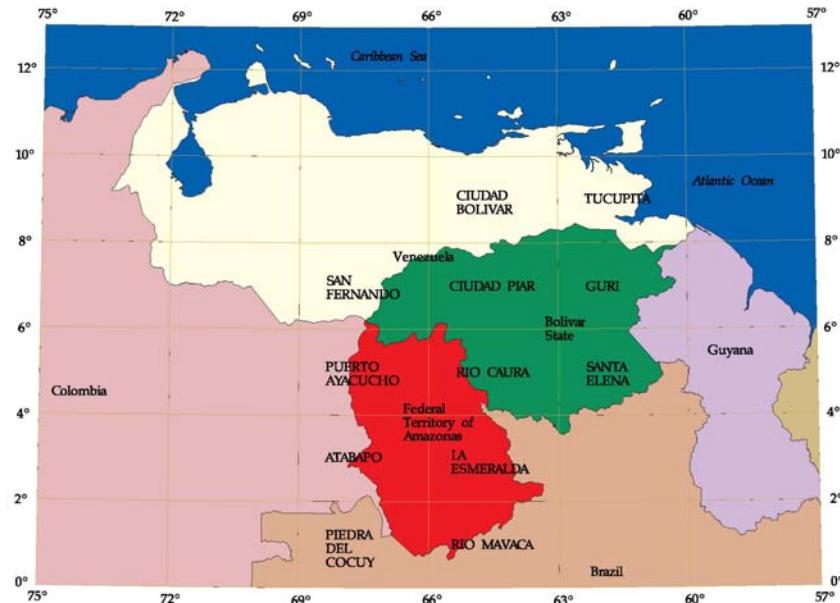


V. Campos,
O. Macsotay,
V. Vivas





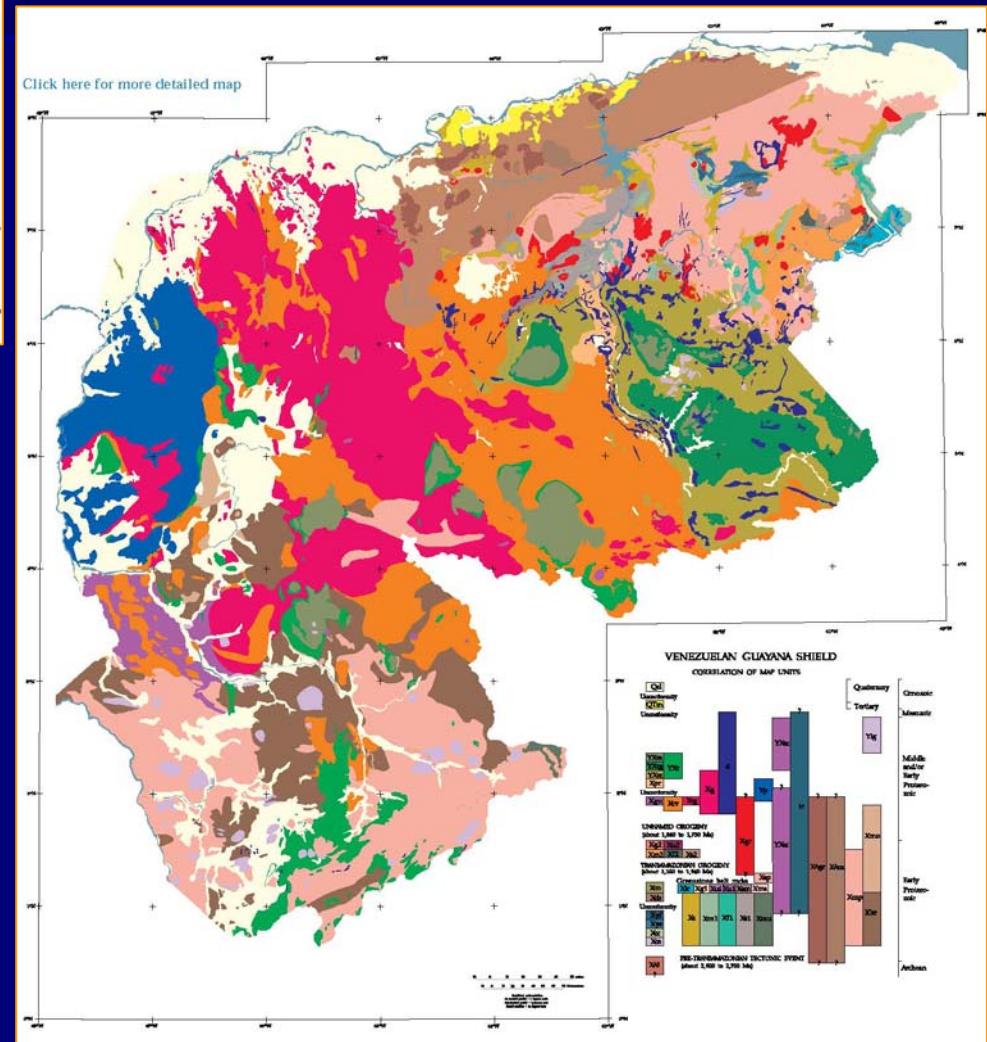
Study Area



* 1989-1997 *

CVG-USGS

USGS DIGITAL DATA SERIES 46
1997
GEOLOGY AND RESOURCE ASSESSMENT
OF THE VENEZUELAN
GUAYANA SHIELD AT 1:500,000 SCALE



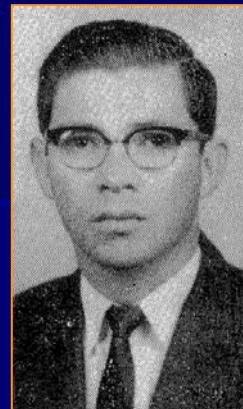
1942-2008 Escuela de Geología, UCV



Ely
Mencher
(1913-1978)



Clemente González
de Juana
(1906-1982)



Nicolás Gerardo
Muñoz
(1935-2002)



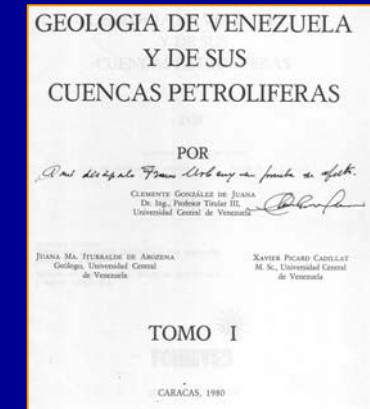
Mario
Vignali



Enrique
Navarro



Suhas
Talukdar



Marino Ostos

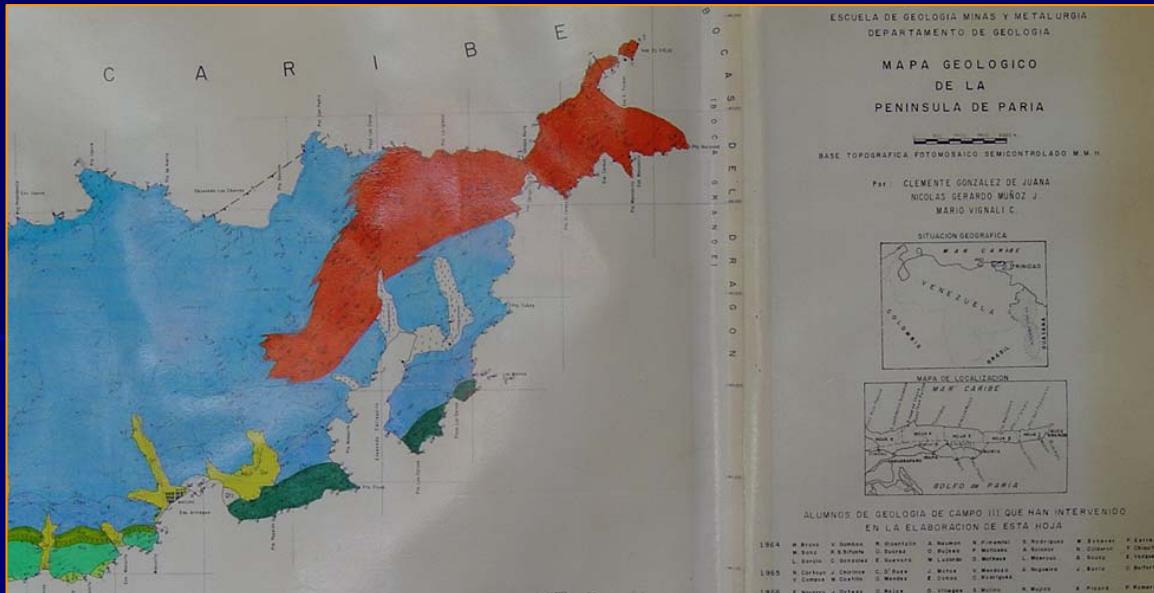
Franklin Yoris

Franco Urbani

Guárico, Lara, Falcón, Margarita-Macanao, Araya-Paria, Cordillera de la Costa

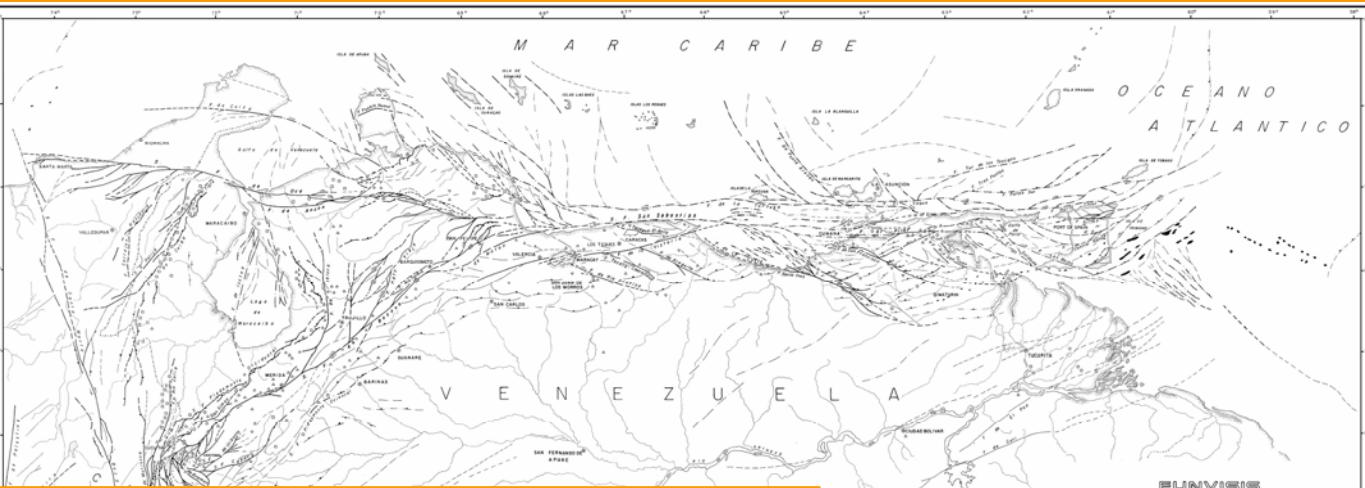
1942-2004
Escuela de Geología, UCV

Península de Paria 1964-1969

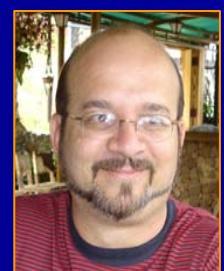
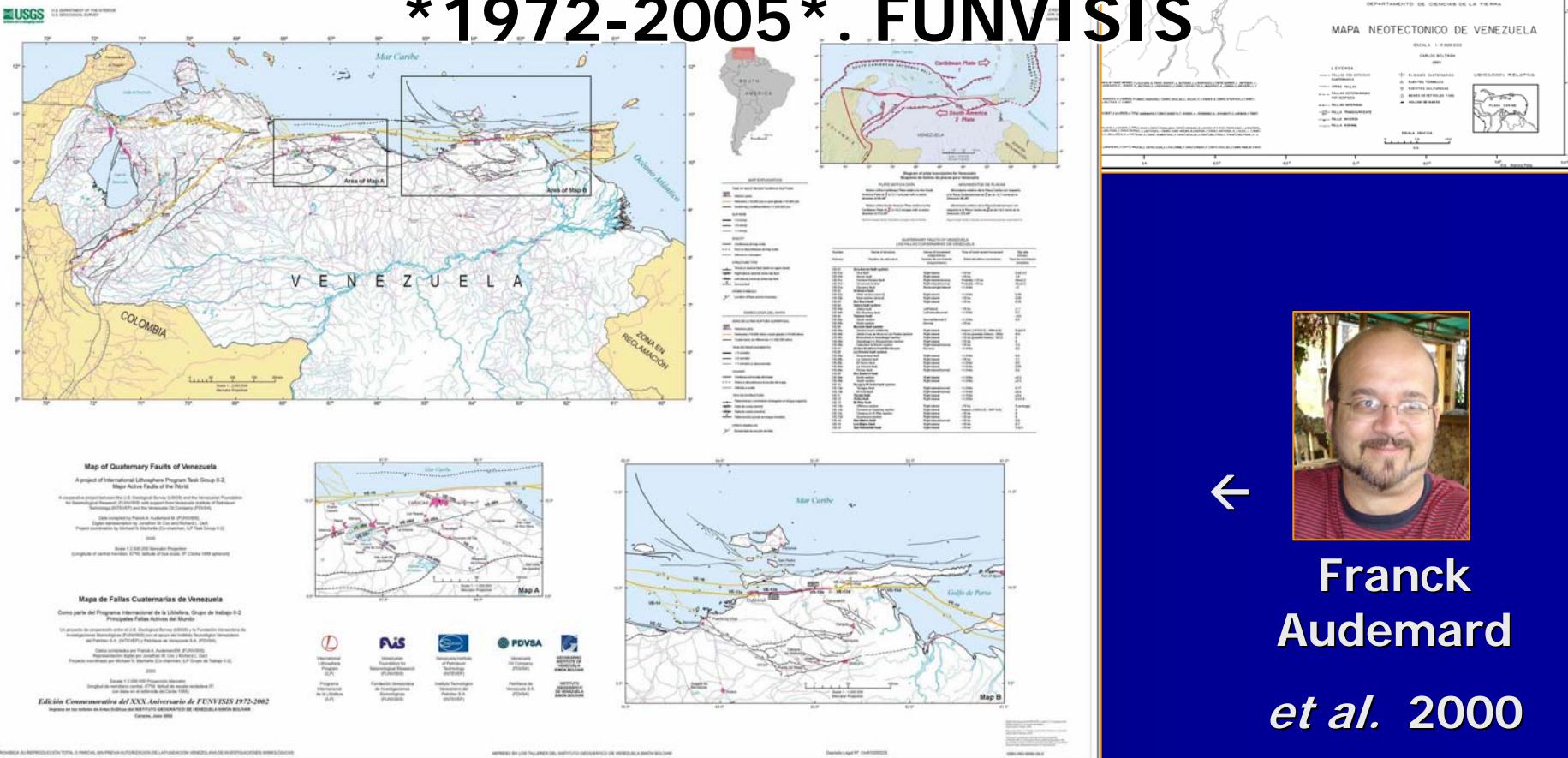




Carlos Beltrán
1993



***1972-2005*. FUNVISIS**



**Franck
Audemard
et al. 2000**

2004. *Atlas Geológico de la Cordillera de la Costa* Urbani & Rodríguez. UCV-FUNVISIS



UNIVERSIDAD CENTRAL DE VENEZUELA
FACULTAD DE INGENIERÍA
ESCUELA DE GEOLOGÍA, MINAS Y GEOFÍSICA
DEPARTAMENTO DE GEOLOGÍA
LABORATORIO DE PETROGRAFÍA Y GEOQUÍMICA 330



FUNVISIS
FUNDACIÓN VENEZOLANA DE
INVESTIGACIONES SISMOLÓGICAS

ATLAS GEOLÓGICO DE LA CORDILLERA DE LA COSTA VENEZUELA

COORDINACIÓN:

Prof. FRANCO URBANI (UCV) e Ing. JOSE ANTONIO RODRÍGUEZ (FUNVISIS)

INTEGRACIÓN DE LA INFORMACIÓN EN HOJAS A ESCALA 1:25.000

Ings. Lucia Barboza, Adrian Díaz, Lisely Omaña
Maria Carolina Orta, Sitú Rodriguez, Patricia Tardáguila, Franco Urbani.

Dibujo: Marina Peña González

BASE TOPOGRÁFICA: Hojas a escala 1:25.000 de la Dirección de Cartografía Nacional
(hoy Instituto Geográfico Venezolano Simón Bolívar)

BASE GEOLÓGICA: Tesistas de la Escuela de Geología, Minas y Geofísica de la Universidad Central Venezuela. Informes y mapas publicados e inéditos del Ministerio de Minas e Hidrocarburos (hoy INGEOMIN-MEM)

Los mapas originales se encuentran a escala 1:25.000, si bien en esta presentación en papel aparecen reducidos a escala 1:50.000.

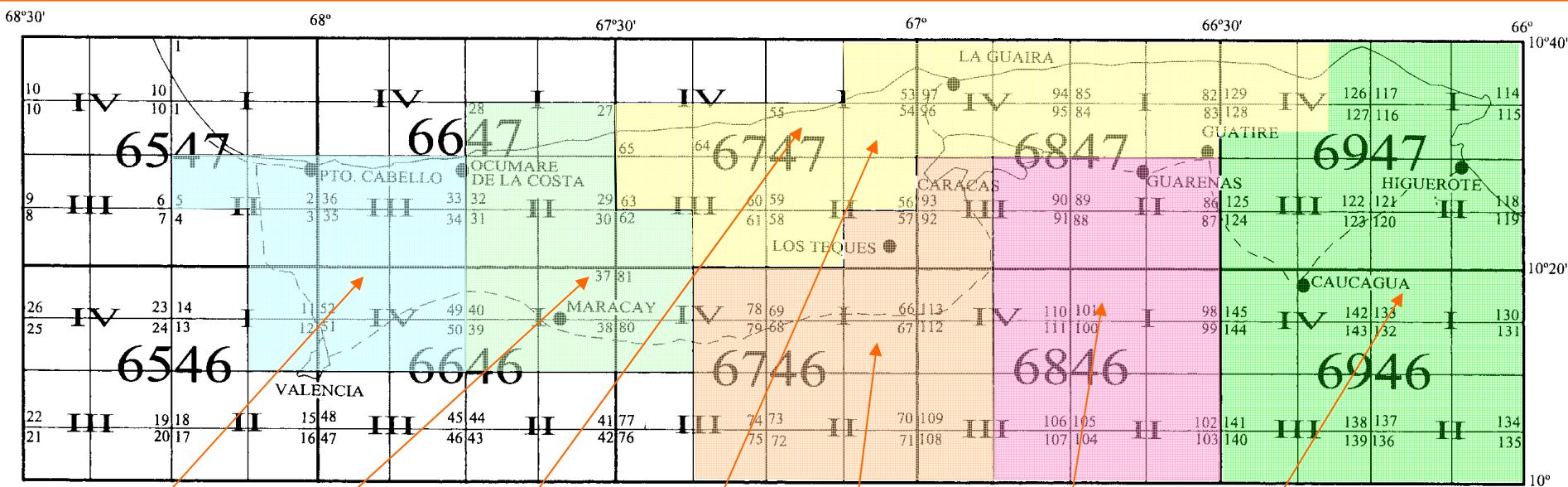
CARACAS, MAYO 2004

2004. *Atlas Geológico de la*

Cordillera de la Costa

Urbani & Rodríguez. UCV-FUNVISIS

146 hojas a escala 1:25.000



L. Omaña

P. Tardáguila

L. Barboza

S. Rodríguez

A. Díaz

M.C. Orta

M. Andrade

M. Peña

2004 USGS-UCV-FUNVISIS

Digital Shaded-Relief Map of Venezuela

By
Christopher P. Garrity¹, Paul C. Hackley², and Franco Urbani²
2004

¹U.S. Geological Survey, Reston, VA 20192, Universidad Central de Venezuela, Caracas 1010, Venezuela

The digital shaded-relief map of Venezuela is a composite of more than 20 sets of 90-meter (3 arc second) pixel resolution elevation data, acquired during the Shuttle Radar Topography Mission (SRTM) in February 2000. The SRTM, a joint project between the National Geospatial-Intelligence Agency (NGA) and the National Aeronautics and Space Administration (NASA), provides the most accurate and comprehensive international digital elevation dataset ever assembled. The 10-day flight mission aboard the U.S. Space Shuttle Endeavour obtained elevation data for about 80% of the world's land surface. The SRTM data are available at a resolution of 90 meters (3 arc seconds) and are considered desirable because it acquires data along continuous swaths, maintaining data consistency across large areas, independent of cloud cover. Swaths were captured at an altitude of 230 km, are approximately 225 km wide with varying lengths. Rendering of the shaded-relief image required editing of the raw elevation data to remove vertical holes and anomalies associated with the SRTM data, as well as the use of a digital elevation model (DEM) to generate values to interpolate areas of null values and generalize irregular elevation spikes and wells. Coastlines and major water bodies used as a clipping mask were extracted from 1:500,000-scale geological maps of Venezuela (Bellizzi and others, 1976). The shaded-relief image was rendered with an azimuth angle of 115° and an altitude of 65°. A vertical exaggeration of 2X was applied to the image to highlight land-surface features. Image processing techniques were accomplished using conventional desktop imaging software. A georeferenced image at full resolution accompanies this product and can be downloaded at <http://pubs.usgs.gov/of/2004/1322>.

References:
Bellizzi, A.G., Pimentel, N.M., and Baio, R.O., (eds.), 1976, Mapa geológico estructural de Venezuela, República de Venezuela, Ministerio de Minas e Hidrocarburos, Dirección de Geología, 30 sheets, map scale 1:500,000.



Ch. Garrity, P. Hackley & F. Urbani (2004)



USGS Open
File Report 2004-1322

<http://pubs.usgs.gov/of/2004/1322>



Geologic Shaded Relief Map of Venezuela

Paul C. Hackley,¹ Franco Urbani,² Alex W. Karlsen,¹ and Christopher P. Garrity¹

¹U.S. Geological Survey, Reston, VA 20192. ² Escuela Geología, Minas y Geofísica, Universidad Central de Venezuela and the Fundación Venezolana de Investigaciones Sismológicas, Caracas, Venezuela.

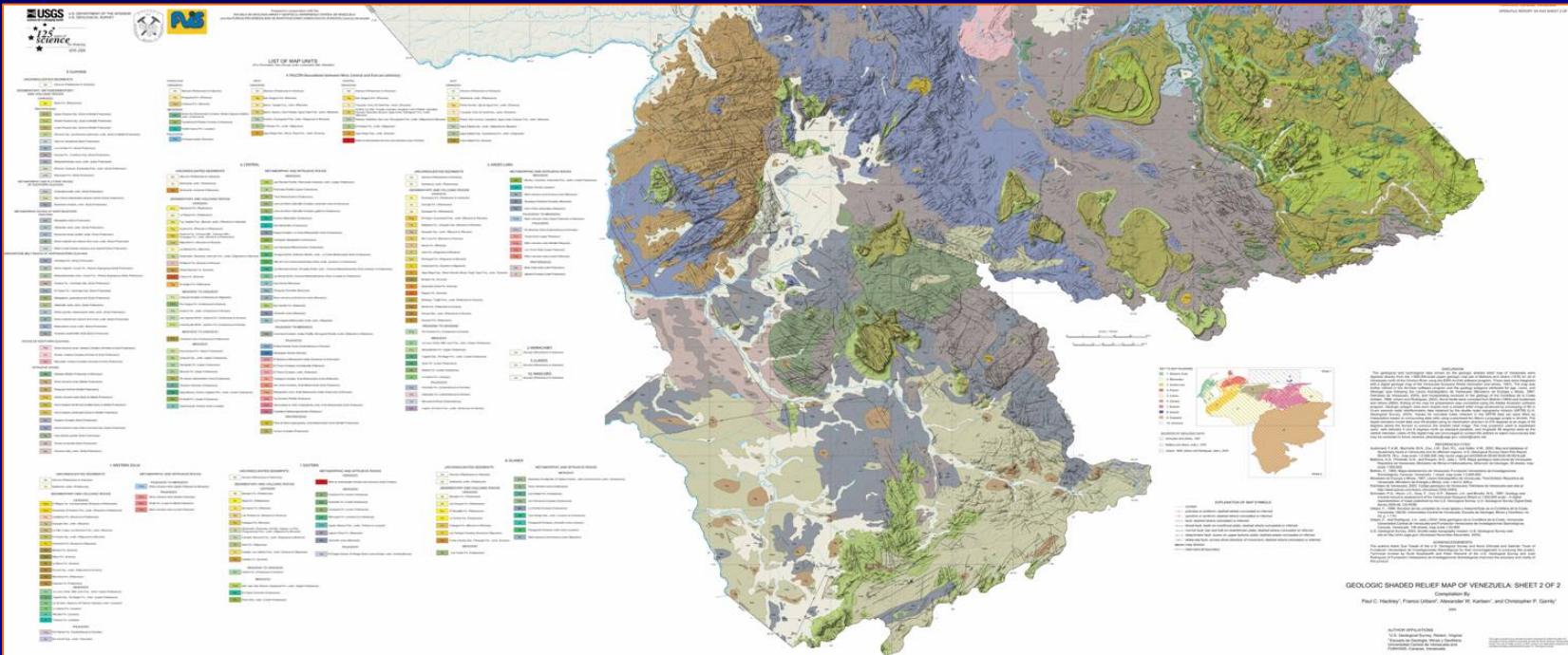
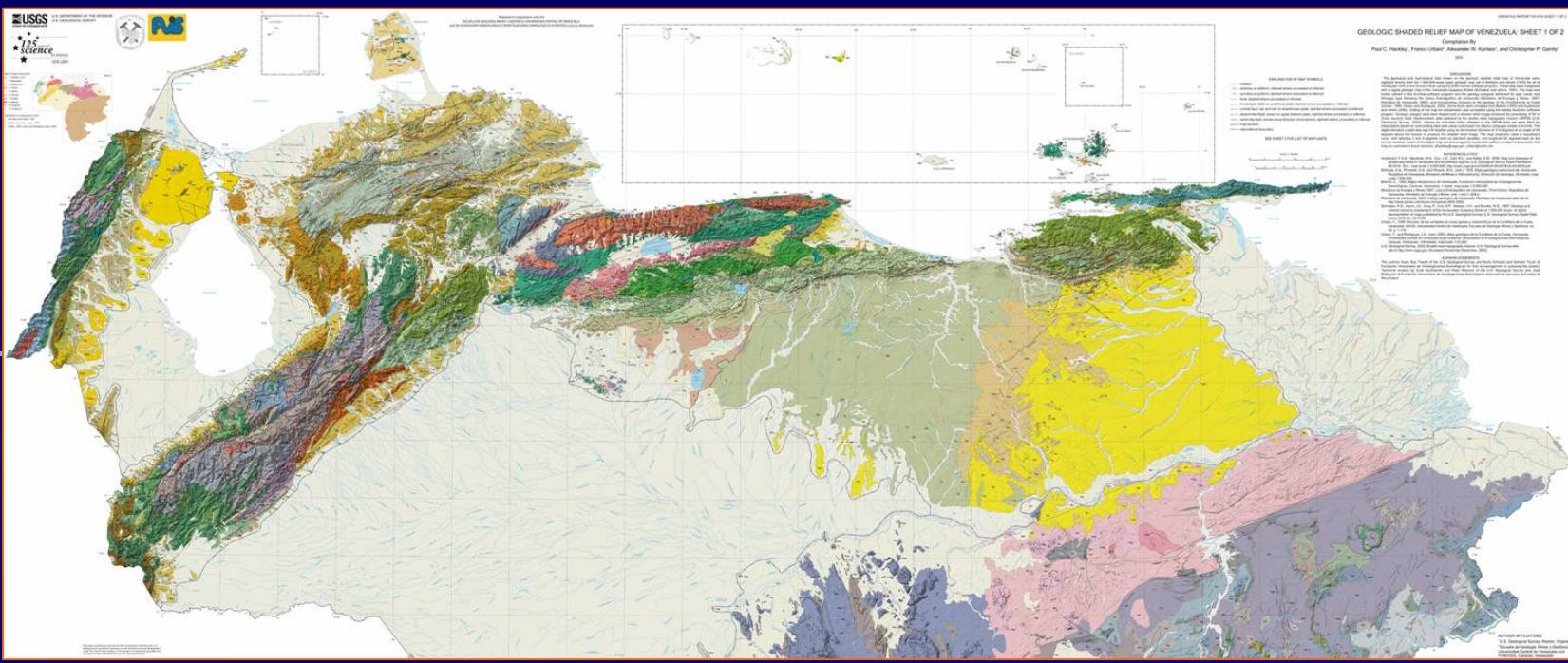


Datos disponibles

- [Hoja 1](#) (versión pantalla) [17.3-MB PDF]
- [Hoja 2](#) (versión pantalla) [11.9-MB PDF]
- [Hoja 1](#) (versión “ploteo”) [182.7-MB PDF]
- [Hoja 2](#) (versión “ploteo”) [120.9-MB PDF]

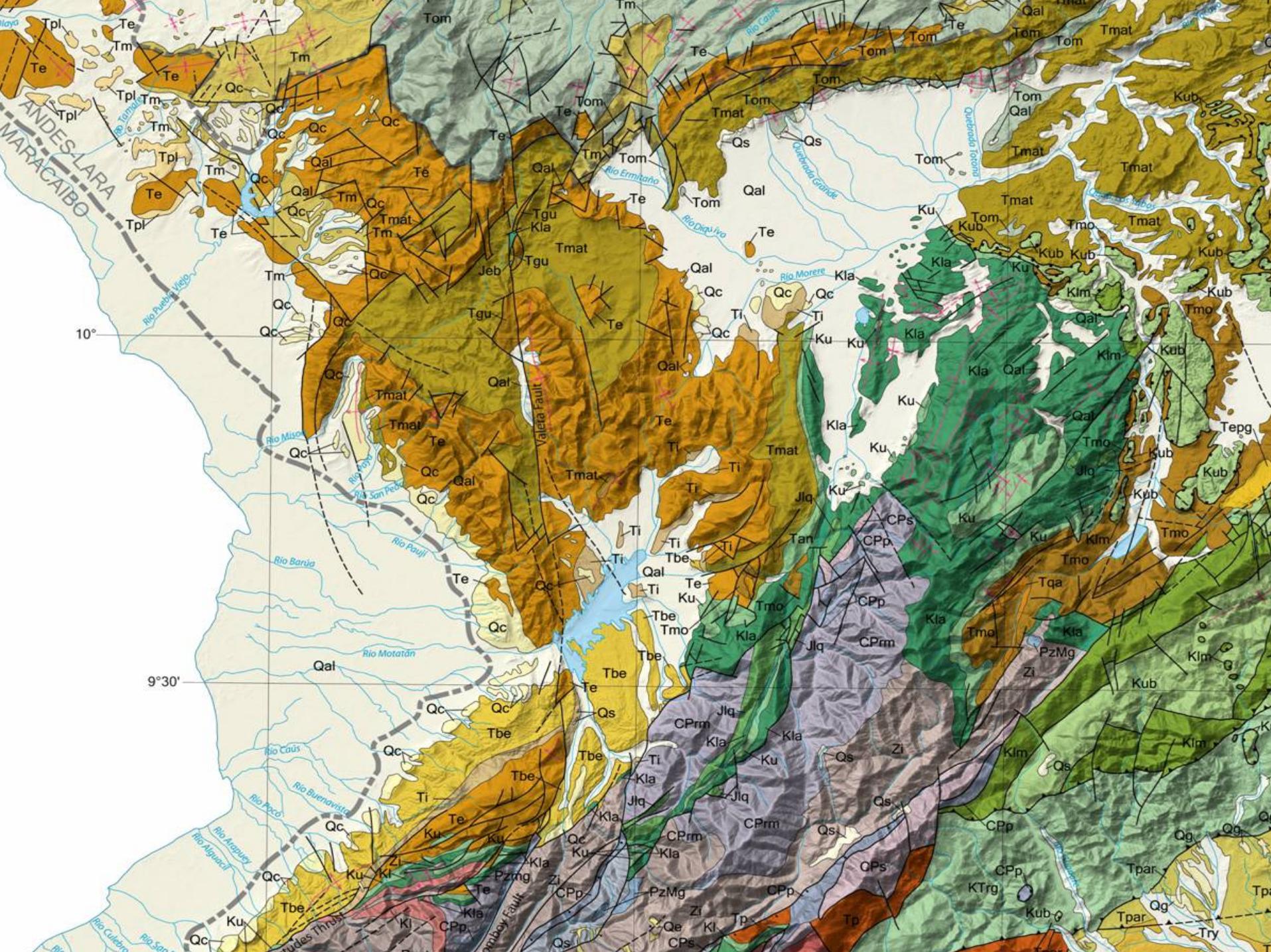
<http://pubs.usgs.gov/of/2005/1038/>





Leyenda

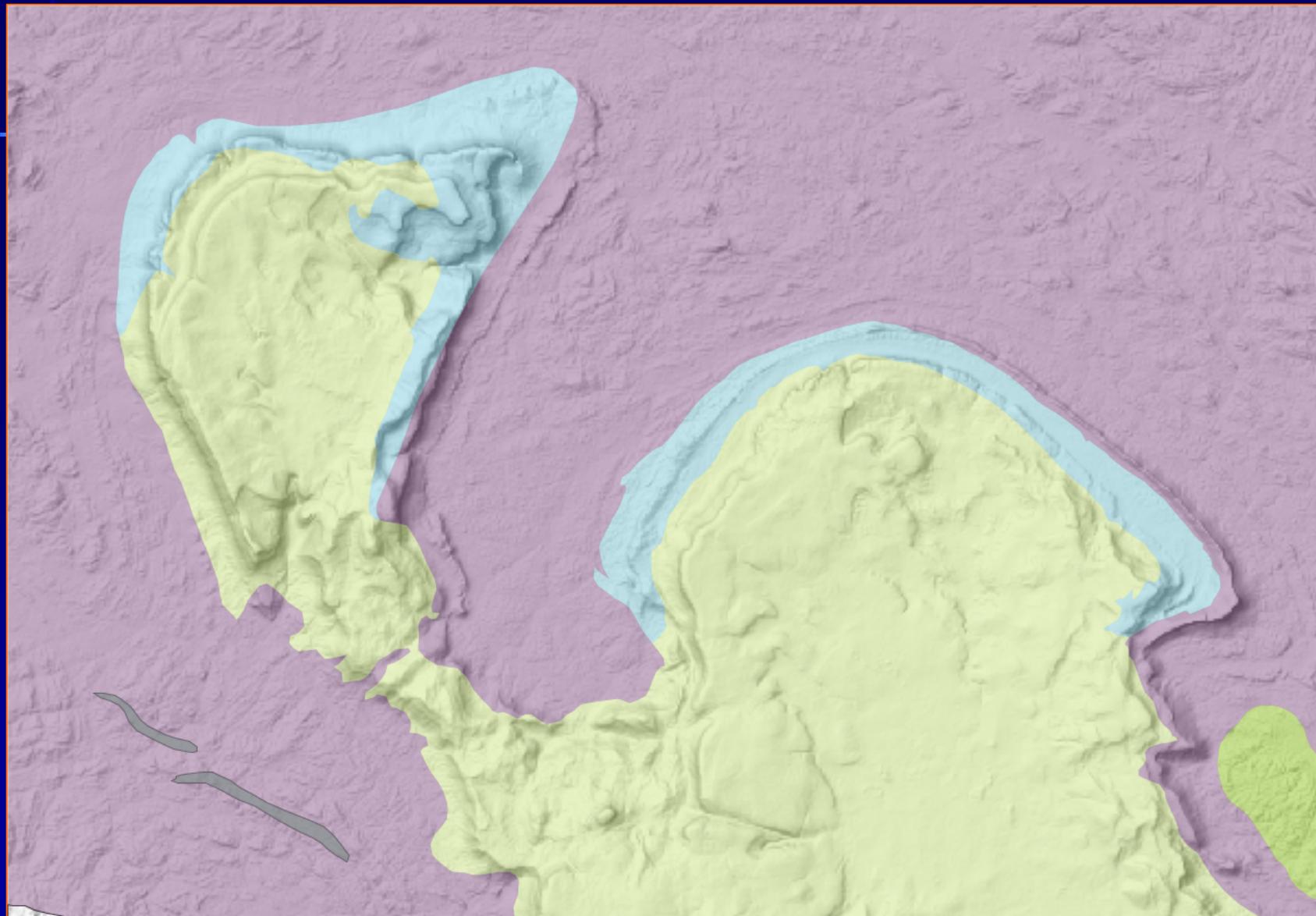




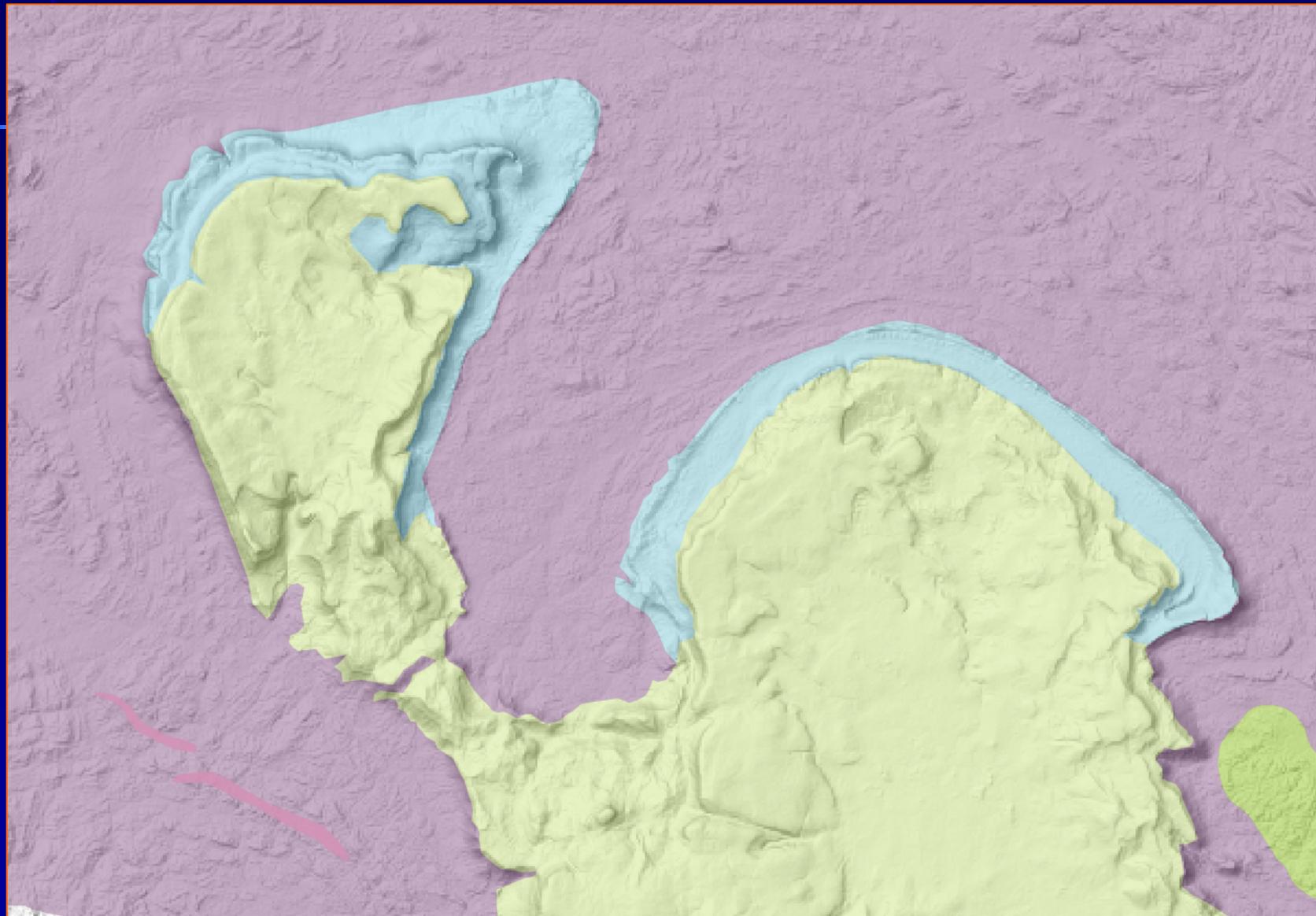
Desajuste topográfico en Guayana: Base topográfica en relieve SRTM



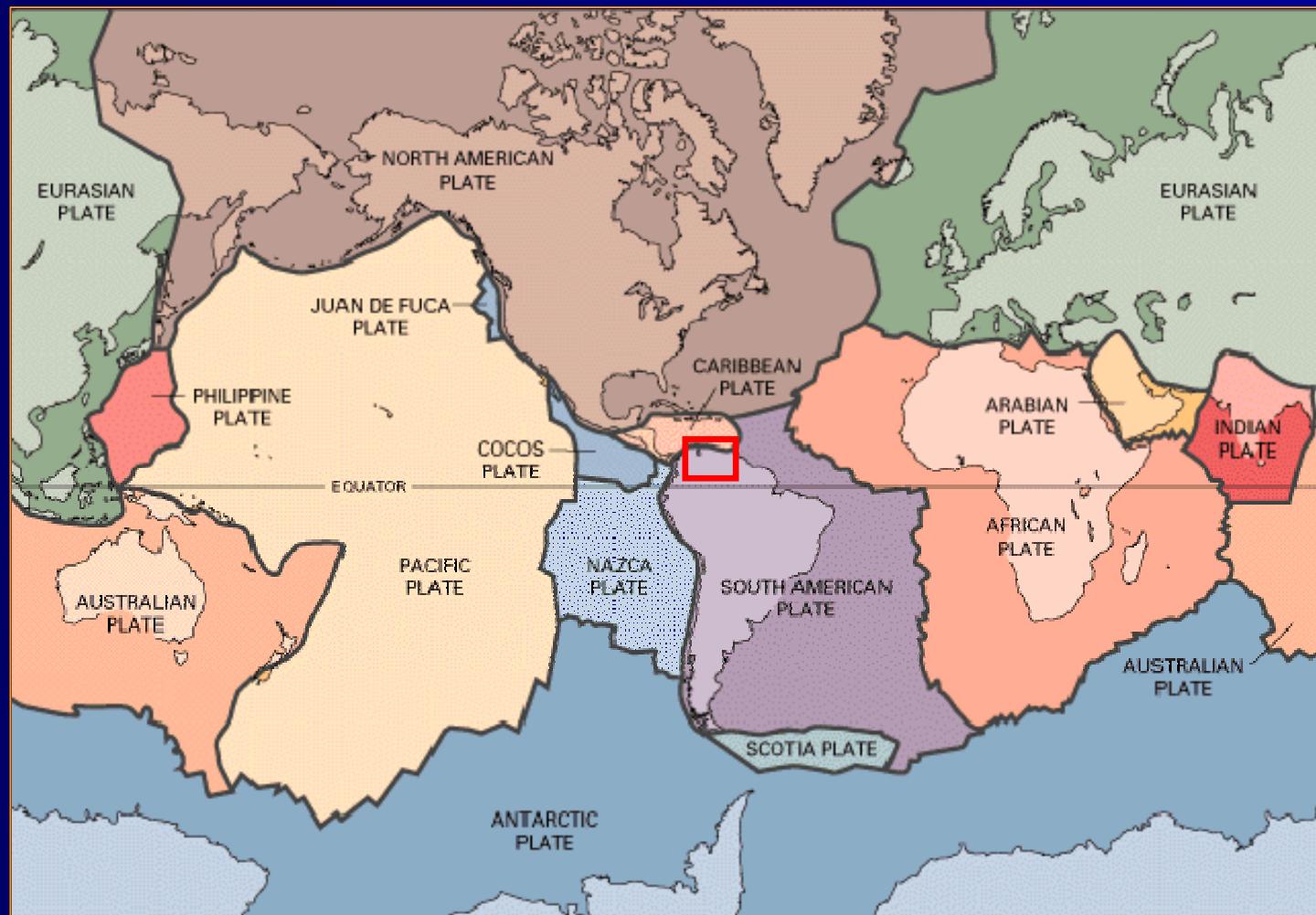
Desajuste topográfico en Guayana: Superposición del mapa geológico USGS-CVG



Desajuste topográfico en Guayana: Ajuste manual

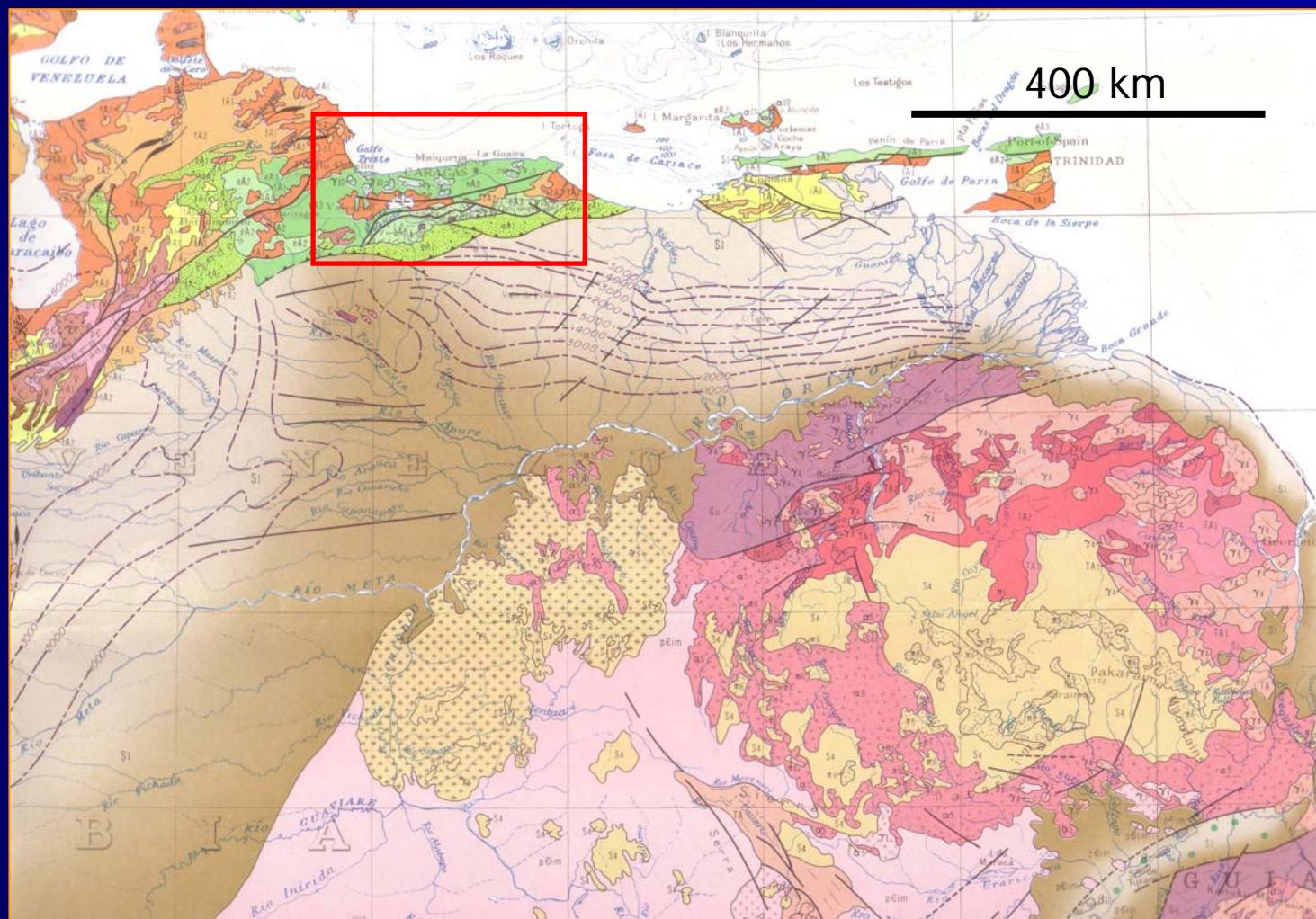


Un zoom hacia Todasana...



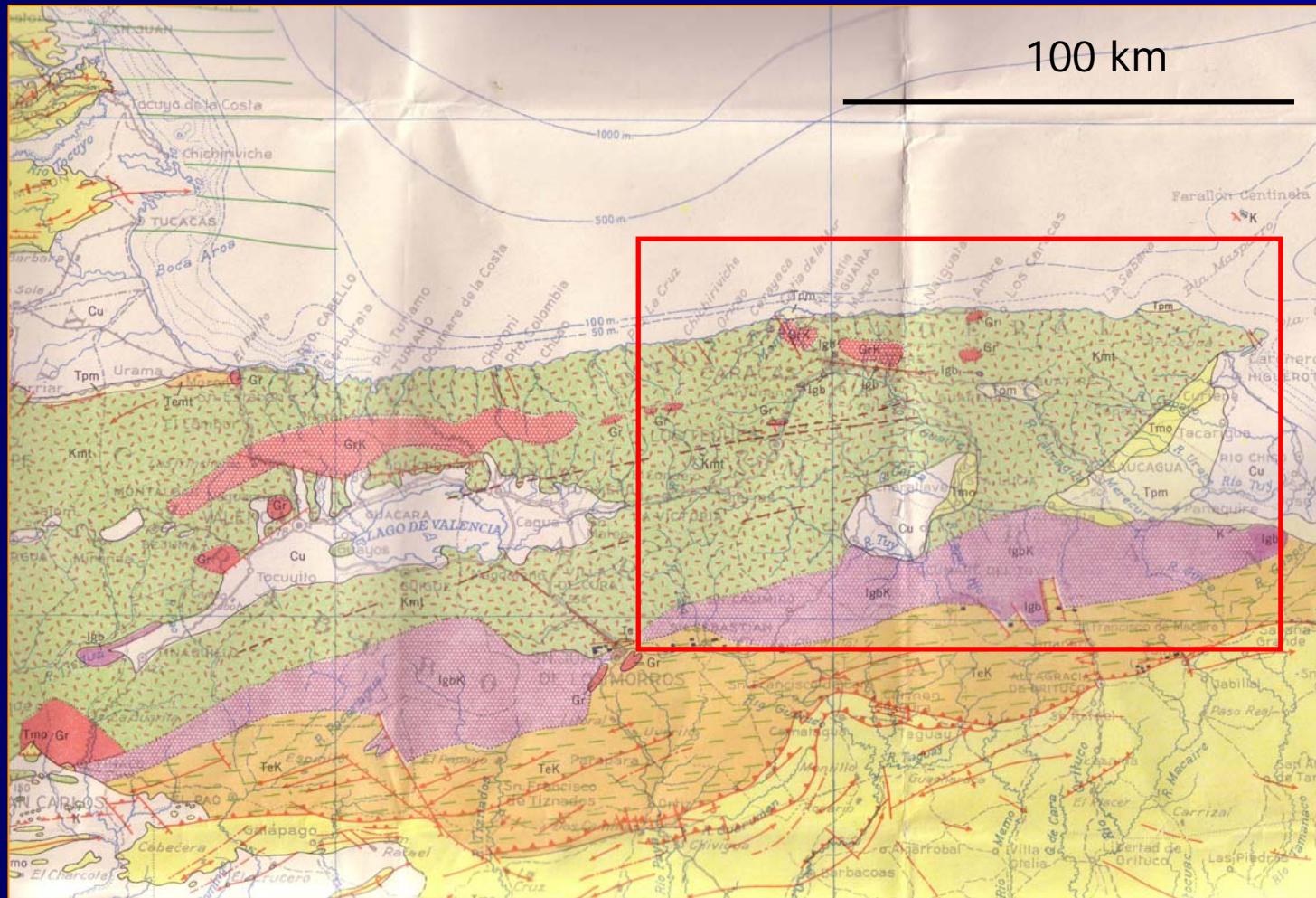
Zoom ...

1:5.000.000 1978



Zoom ...

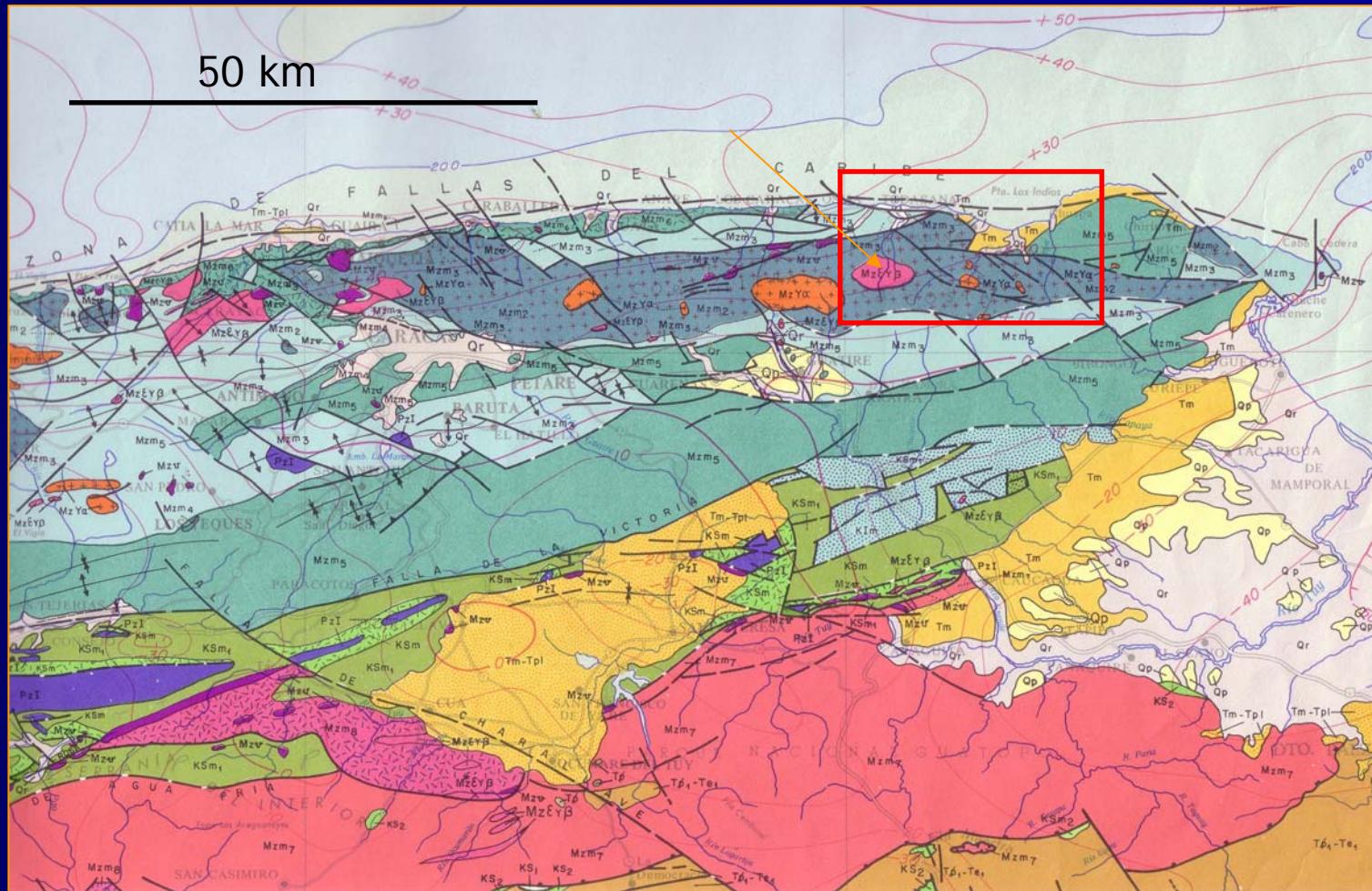
1:1.000.000 1950



Zoom ...

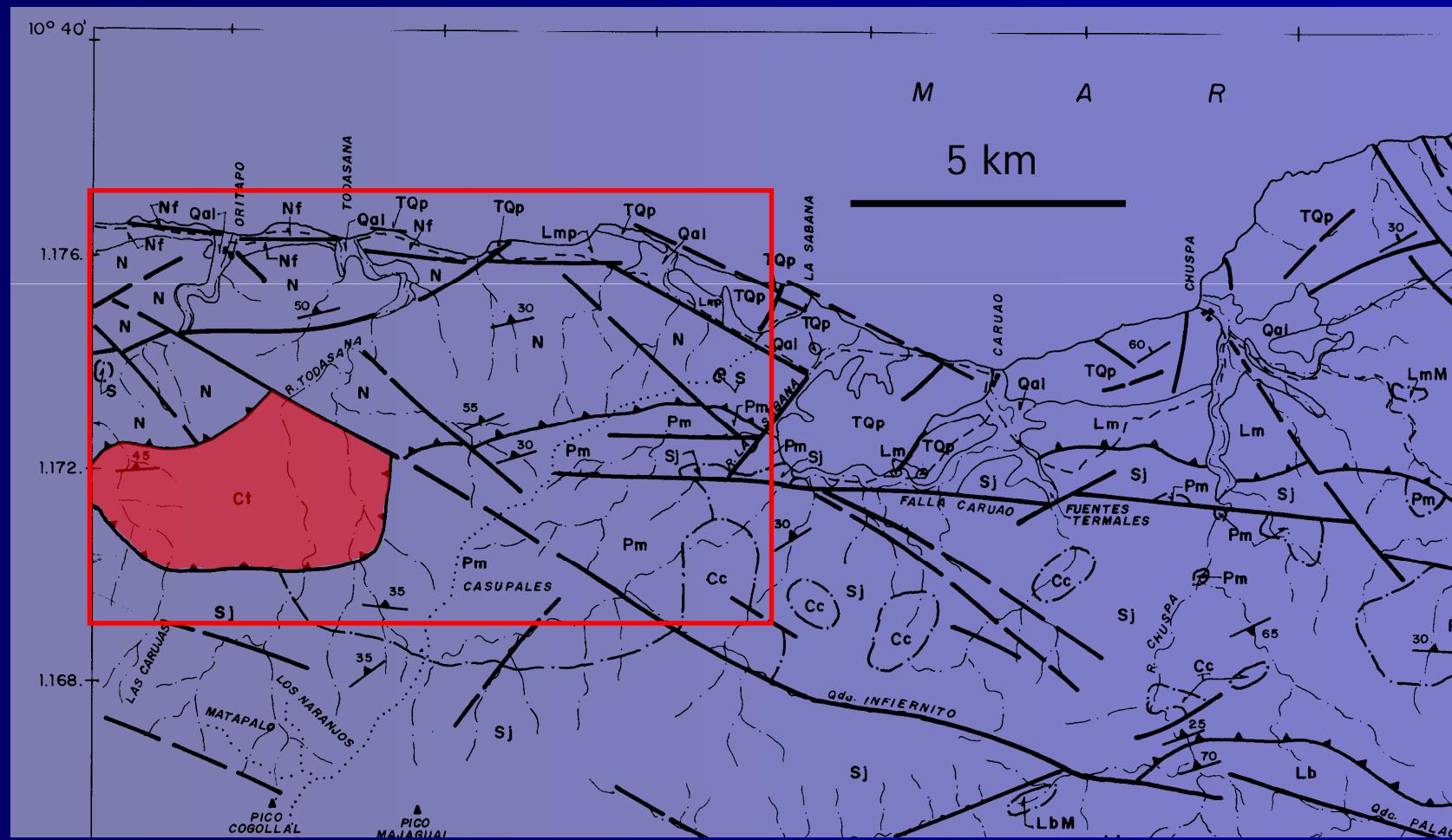
1:500.000

1976



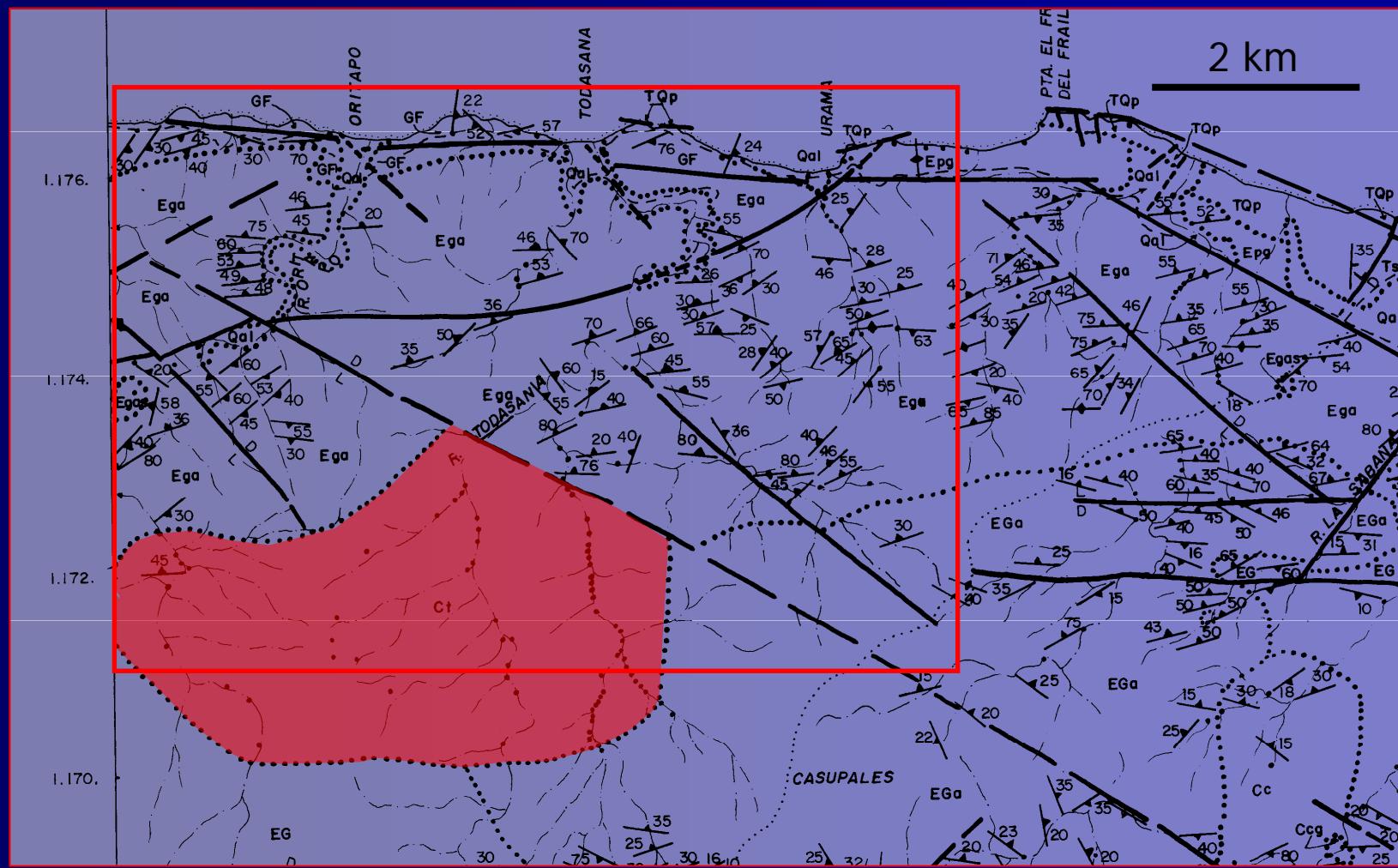
Zoom ...

1:100.000 1989



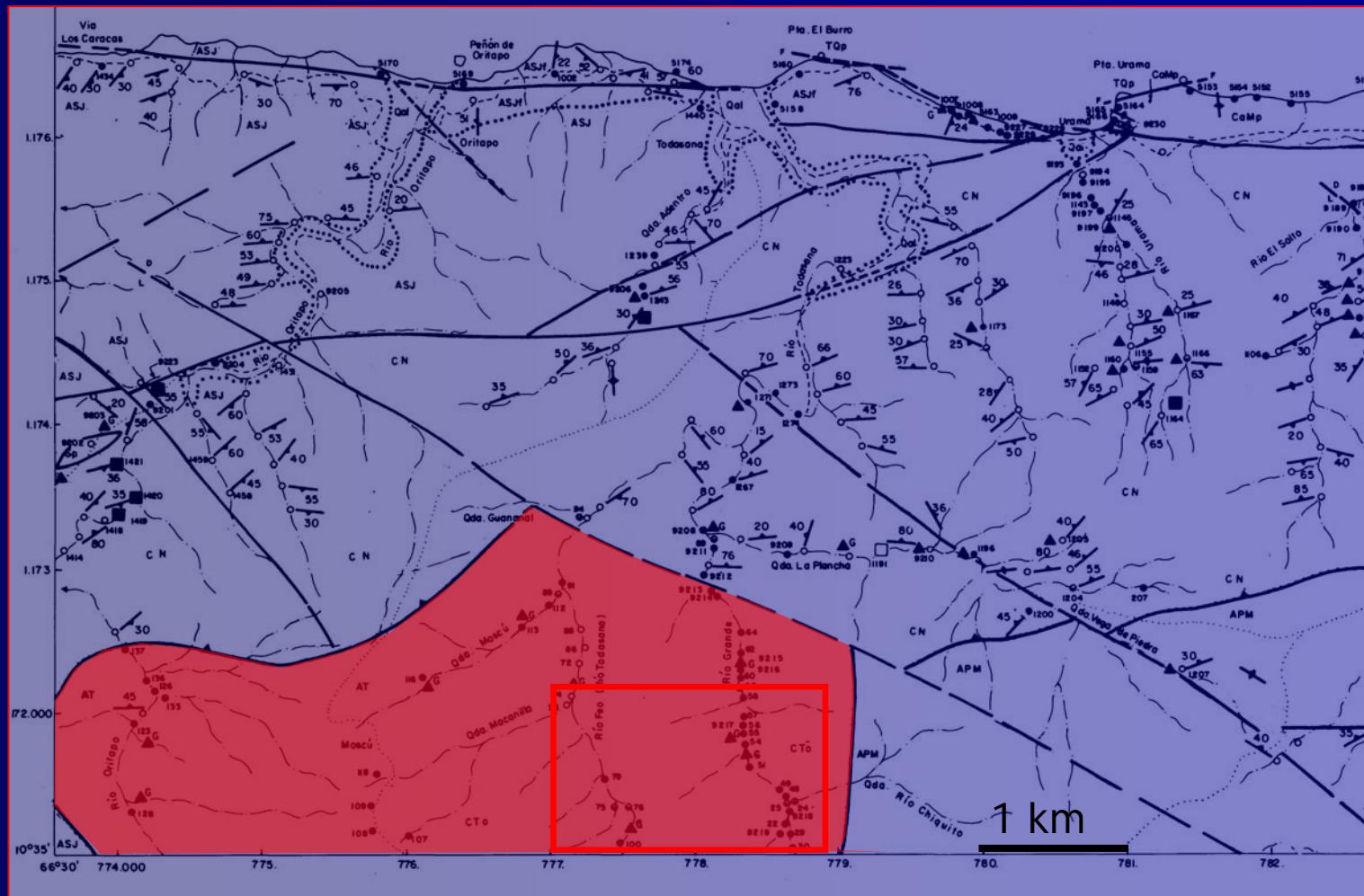
Zoom ...

1:50.000 1989



Zoom ...

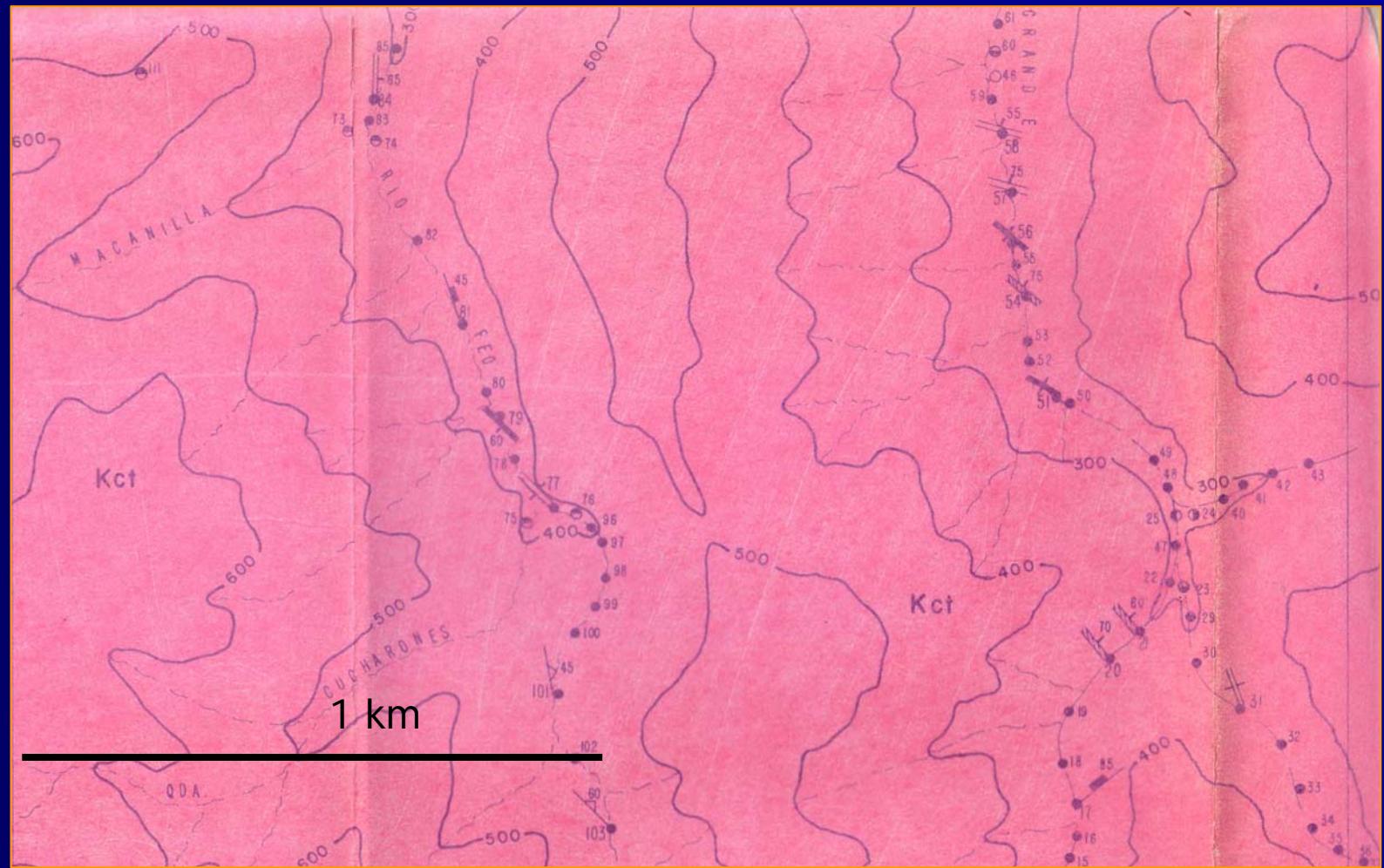
1:25.000 1989



Zoom ...

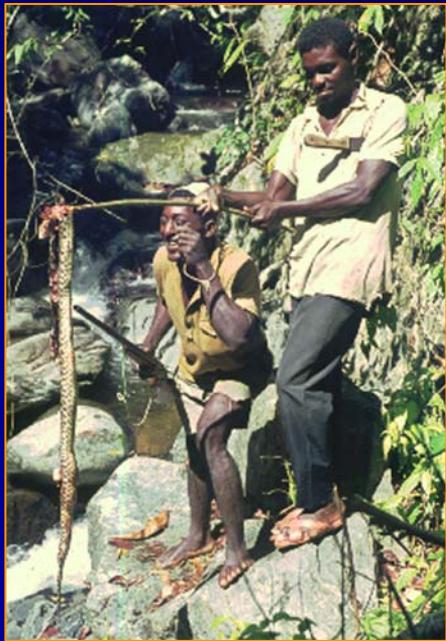
1:10.000

1976



Nicolás Escalona. Río Todasana, 1974

Zoom ...



MUCHAS GRACIAS ...



El material gráfico procede de:

- Colección propia
- Biblioteca de la Universidad de Illinois en Urbana-Champaign
- Biblioteca del Congreso, Washington
- Biblioteca del Servicio Geológico de USA
- CEDI - FUNVISIS