



UNIVERSITÀ DEGLI STUDI DI TRIESTE

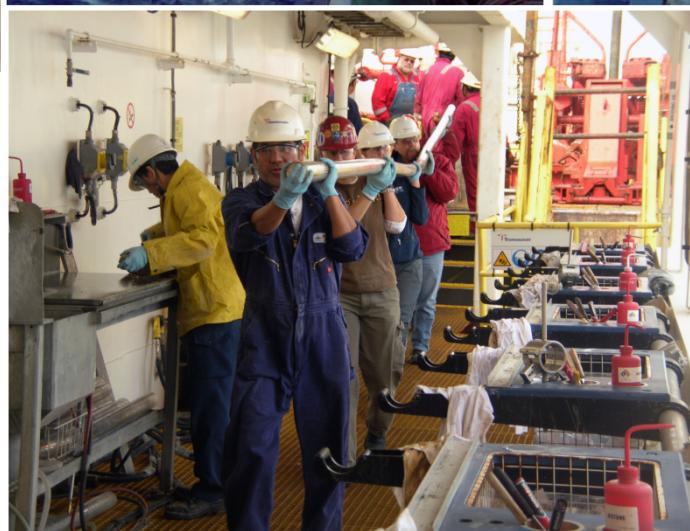
Dipartimento di Matematica e Geoscienze

Corso di Geologia Marina 2016-17



Fotos: Volker Diekamp, Marum

# CORE ON DECK!





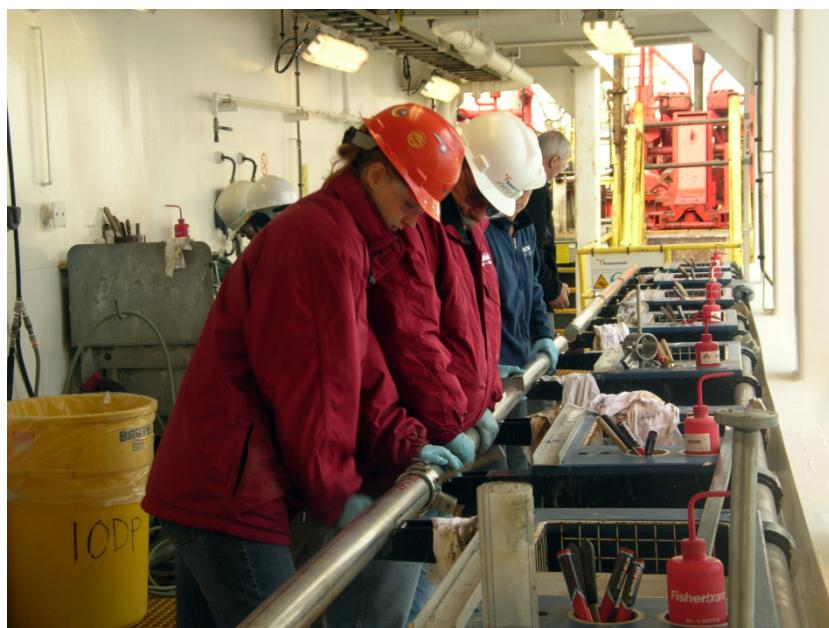
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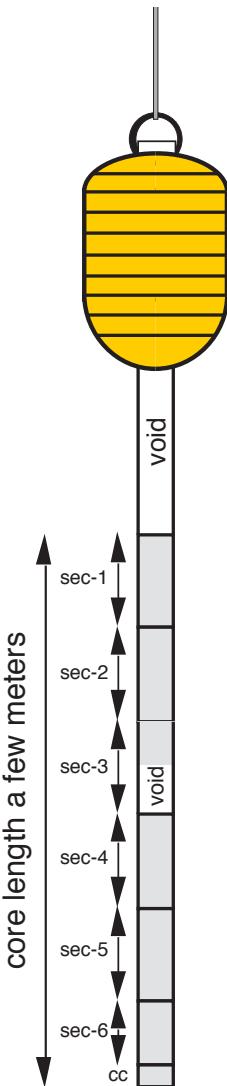


## CUT INTO SECTIONS





## SECTIONS' LABELING



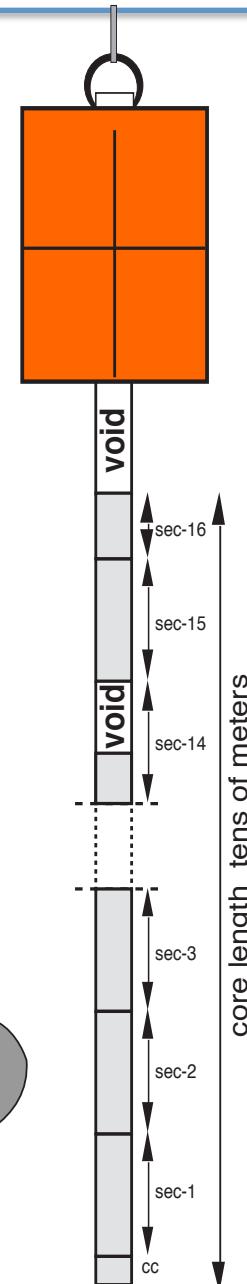
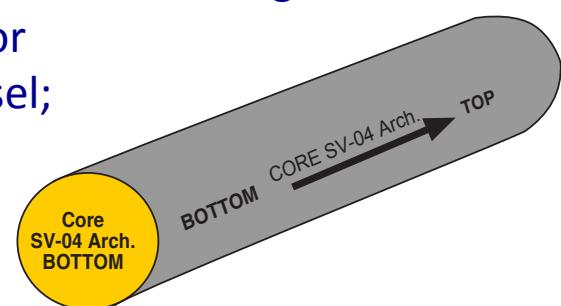
The plastic liner is extracted from the barrel and cut into sections 1-1.5 m-long

The sections are numbered consecutively from bottom to top of the core or *vice versa* depending on the total length of the core.

**Short cores** are numbered consecutively from top to bottom.

**Long cores** are numbered consecutively on removal from the barrel from bottom to top of core.

Each section is labeled with a code indicating the name of the project and/or the name of the research vessel; the core number; the section number, and stratigraphic orientation (top-bottom)





# CORE OPENING AND SEDIMENTS ANALYSIS

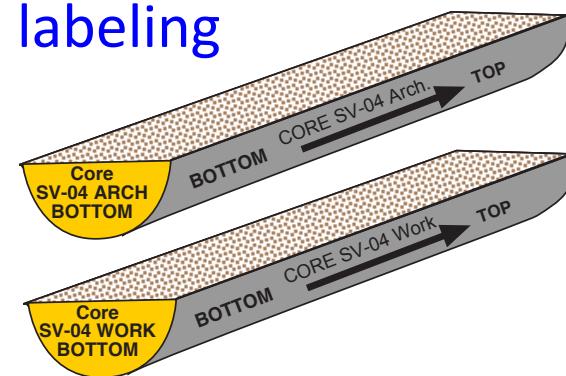
The plastic liner of each section is cut longitudinally. The plastic liner is cut by means of an electric saw/microvibro saw, while the sediments are cut using a “cheese wire”. The two splitted half-sections are labeled as **working section** and **archive section** and will undergo a different analytical process:

**ARCHIVE SECTIONS:** not destructive analyses  
X-radiographs  
multi-sensor core logger  
XRF core-scan  
photographs

**WORKING SECTIONS:** visual logging and sub-sampling



Half-sections'  
labeling



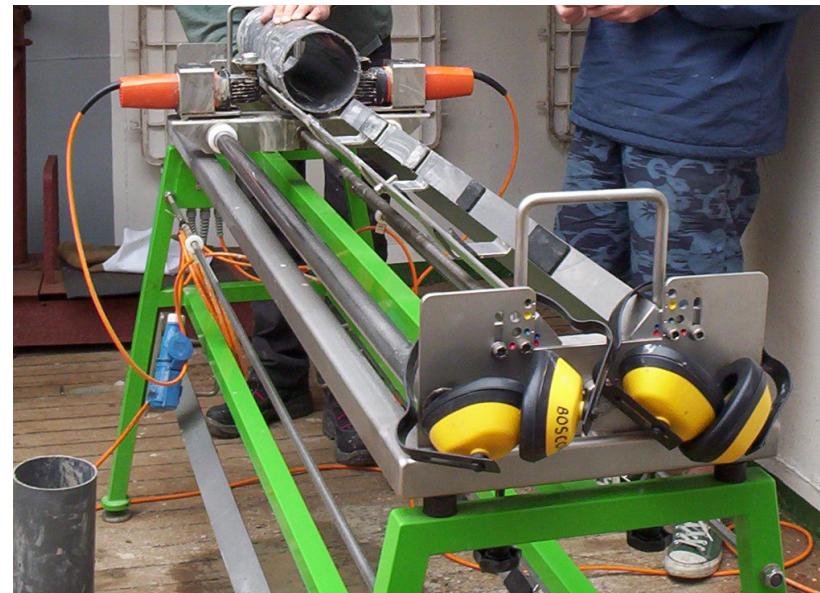


# CORE OPENING AND SEDIMENTS ANALYSIS

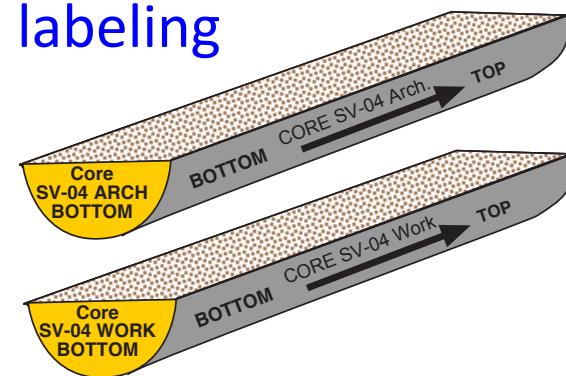
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**ARCHIVE SECTIONS:** not destructive analyses  
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multi-sensor core logger  
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**WORKING SECTIONS:** visual logging and sub-sampling



Half-sections' labeling





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# CORE DESCRIPTION

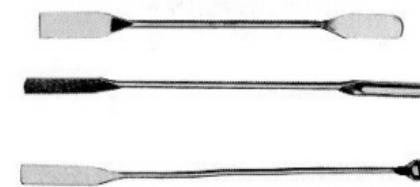




# Visual core description 1° step



- **Definition of lithological units** based on:
  - Lithology including composition and texture
  - Color
  - Sedimentary structures (laminations, bioturbations, faults)
  - Boundaries (transitional, sharp not erosive, sharp erosive, irregular)
- **Definition of sediment disturbance**
  - Soupy sediments
  - Bended boundaries at the lateral ends
  - Flow-in (piston cores)
  - Core re-bouncing (repetition of stratigraphic sections) in gravity cores



Project:		Date .....	CORE	SECTION	
Observer(s) ...	samples		LITHOLOGY (cm from top of section)	texture	LITHOLOGIC DESCRIPTION
depths	samples	SEISMIC DEPTH	size	thickness	length
arrangements	arrangements	0	mm	mm	mm
etc.	etc.	10	cm	cm	cm
		20			
		30			
		40			
		50			
		60			
		70			
		80			
		90			
		100			
LEGEND					
—	—	—	—	—	length of section (cm) .....
—	—	—	—	—	total length of core (cm) .....
remarks:					





# Visual core description FORM



Project:		Date .....	CORE	SECTION
Observer(s) .....	LITHOLOGY (cm from top of section)			
samples	SEDIM. STRUCT.	texture <sup>(a)</sup> clay fine medium coarse grains-pebbles	LITHOLOGIC DESCRIPTION	
forams nannos diatoms s. slides			COLOUR	
			10	
			20	
			30	
			40	
			50	
			60	
			70	
			80	
			90	
			100	
LEGEND				
- - - clay	— sharp boundary	◇ pteropod rich	length of section (cm) .....	
- - - silt	— gradational boundary	⊗ forams rich	total length of core (cm) .....	
- - - sand	~~~ angular boundary	● shell's fragments	remarks:	
pebbles	▲▼ normal and reverse grading	○ soupy sediment		
turbidite	planar laminations	◎ bioturbation		
V V V tephra	cross laminations			
— dark layer	slump			
	fault			

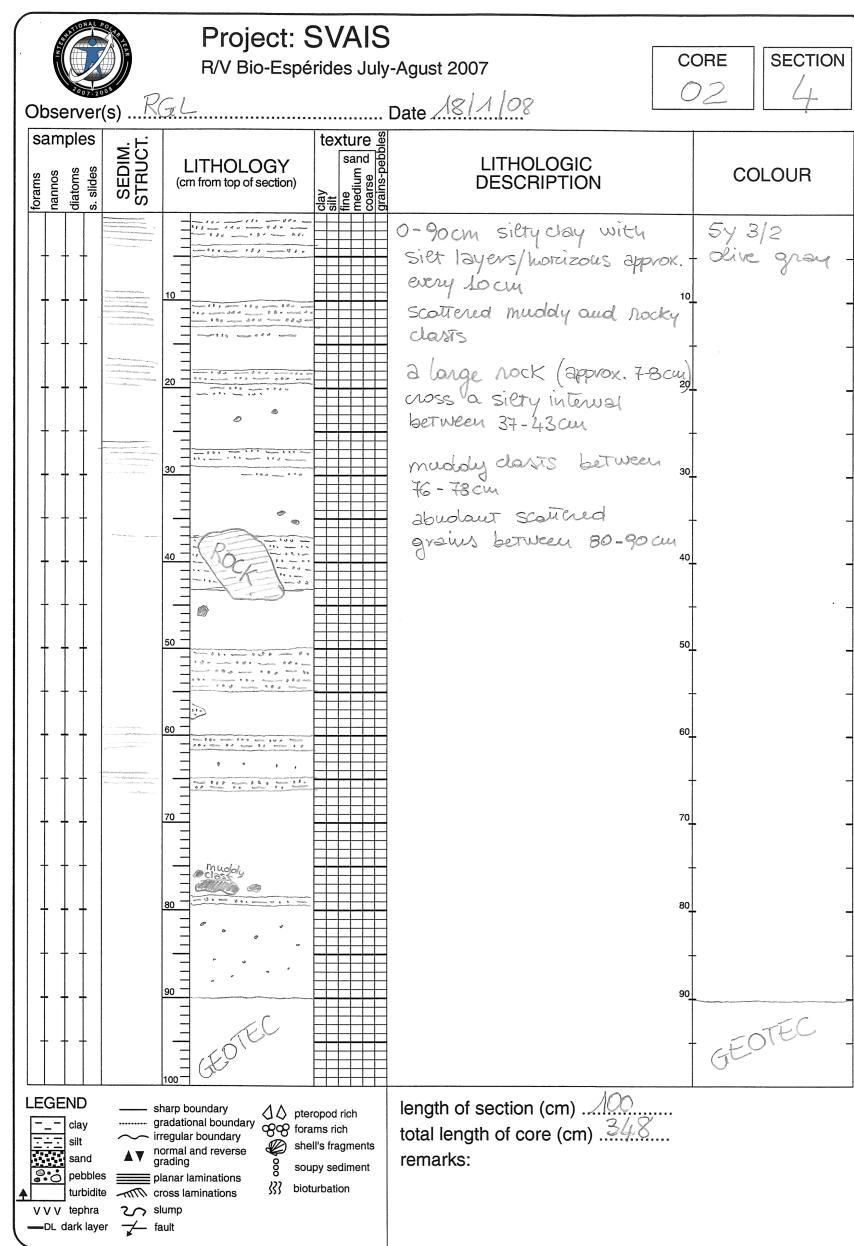
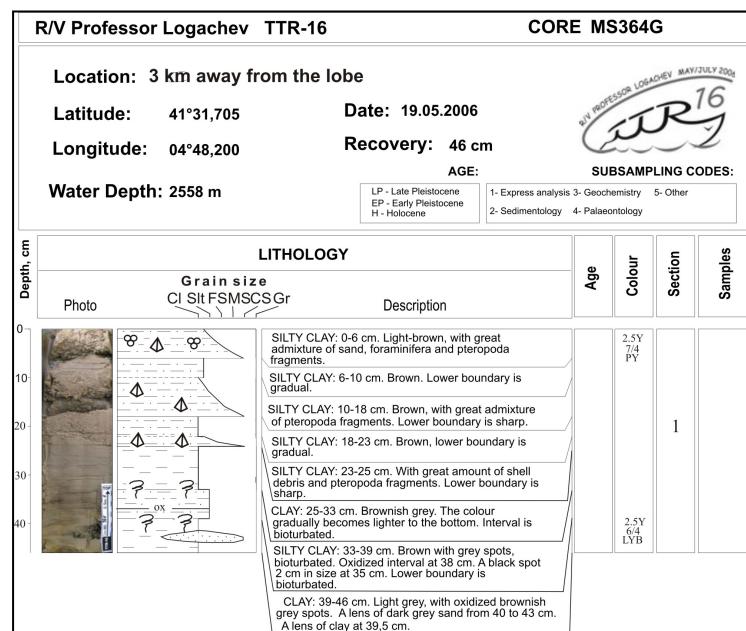
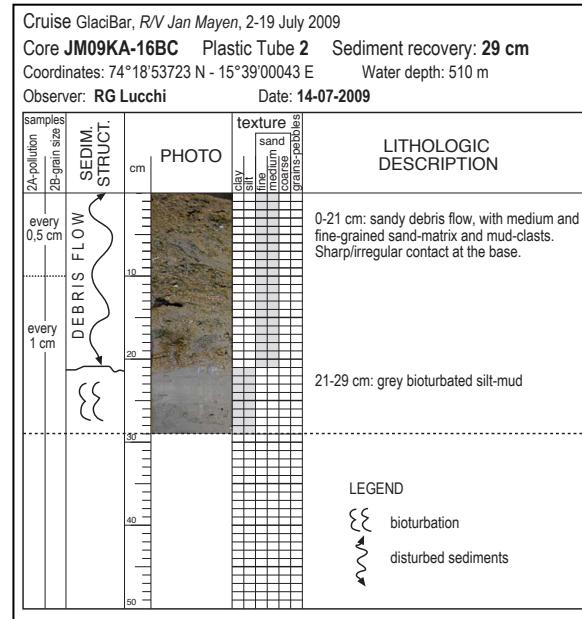


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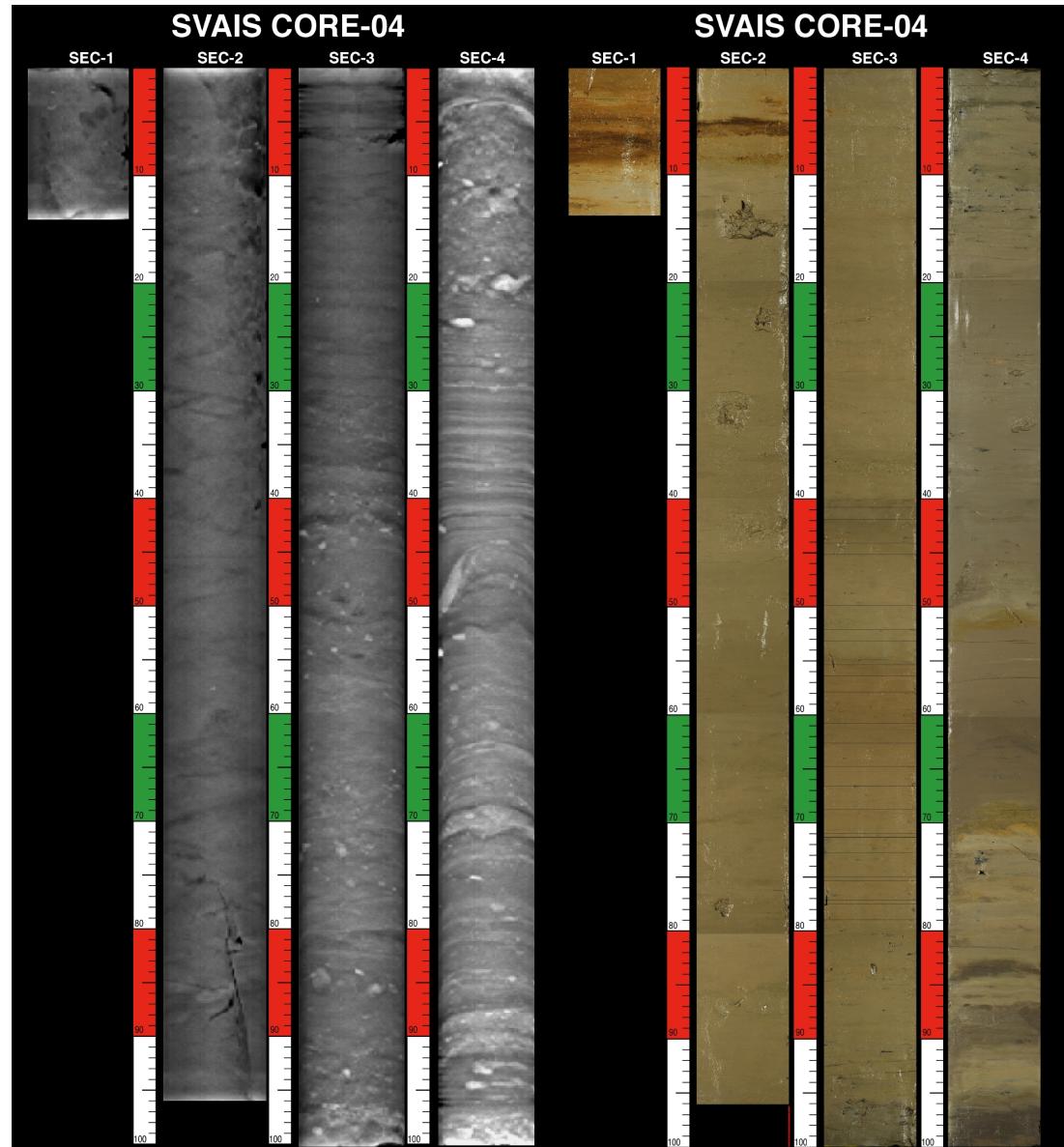


## Corso di Geologia Marina 2016-17





X-RAY

SEDIMENT  
SURFACE

