

Sixth International Mountmakers Forum

25 Sep 2018

**OSTEOMONTAGE TECHNIQUE DEVELOPED FOR THE
EXHIBITION OF THE
UNIVALI OCEANOGRAPHIC MUSEUM**



Bibiana da Conceição Lessa

Assistant Curator

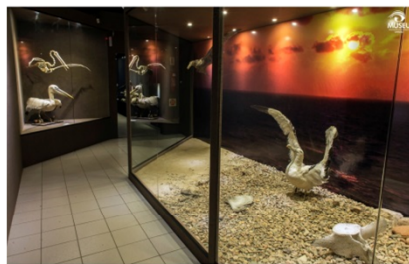
The Univali Oceanographic Museum (MOVI), was created in 1987 and its collections present the most complete set of marine animals of the Southwest Atlantic with highlights to the collections of Chondrichthians, sea turtles and cetaceans.



Our highlight in the Chondrichthians collection is a *Rhincodon typus* that we fixed whole and goes to the exhibition in a annex building that will be built especially for it.



The MOVI inaugurated its exhibition halls in December 2015. Disposed in phylogenetic order, the animal groups are represented in halls with a modern but conservative museography, focused mainly on the species that occur in the Brazilian coast.



Beige Hall - Marine Birds



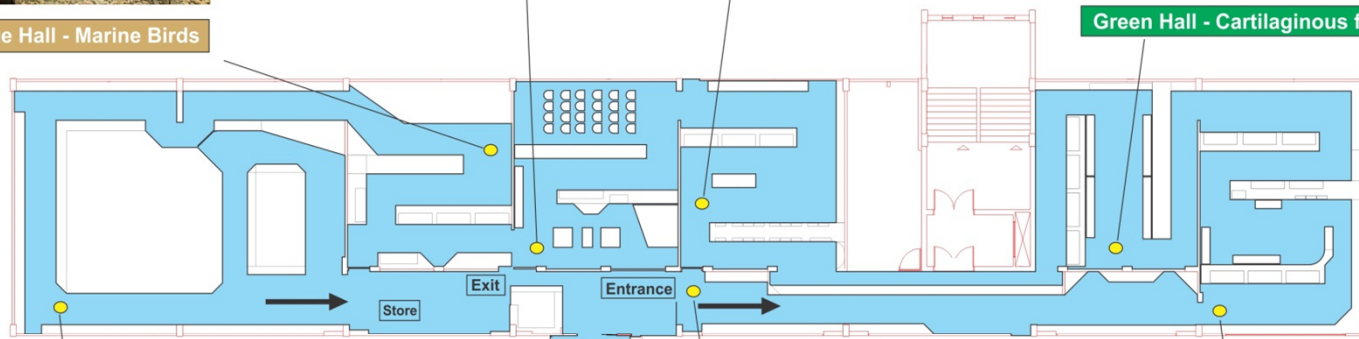
Grey Hall - Marine Reptiles



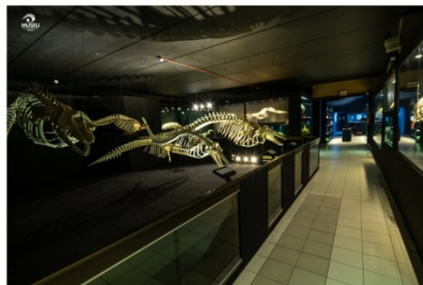
Brown Hall - Bony fish



Green Hall - Cartilaginous fish



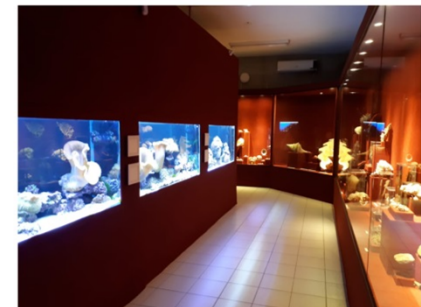
Black Hall - Marine Mammals



Blue Hall - History



Red Hall - Invertebrates



List of specimens assembled for the exhibition.

Group		Especimens	Sex / Total Length (cm/TL)	Collection number
Reptile	1	<i>Chelonia mydas</i>	SI – 36.7 CCC ¹	MOVI 51177
	2	<i>Dermochelys coriacea</i>	SI - CT indet.	MOVI 01921
Bird	3	<i>Spheniscus magellanicus</i>	M ad. – 63	MOVI 06319
	4	<i>Diomedea exulans</i>	F Subad. - 120	MOVI 16226
	5	<i>Sula variegata</i>	SI ad. - 39 CM ²	MOVI 06067
	6	<i>Pelecanus thagus</i>	SI - CT indet.	MOVI 06180
Mammals	7	<i>Pontoporia blainvillei</i>	SI ad. - CT indet.	MOVI 16133
	8	<i>Pontoporia blainvillei</i>	M Neonato - 71	MOVI 00053
	9	<i>Kogia sima</i>	F – 242.8	MOVI 05587
	10	<i>Kogia breviceps</i>	M - 268	MOVI 07536
	11	<i>Sotalia guianensis</i>	M ad. - 166	MOVI 01963
	12	<i>Steno bredanensis</i>	M – 257.5	MOVI 08561
	13	<i>Stenella longirostris</i>	F – 199.6	MOVI 10356
	14	<i>Stenella coeruleoalba</i>	SI - 204	MOVI 15086
	15	<i>Stenella frontalis</i>	SI - CT indet.	MOVI 10382
	16	<i>Delphinus capensis</i>	M - 239	MOVI 33254
	17	<i>Tursiops truncatus</i>	SI - 316	MOVI 05568
	18	<i>Phocoena dioptrica</i>	M - CT indet.	MOVI 51914
	19	<i>Orcinus orca</i>	F juv. - 474	MOVI 29675
	20	<i>Pseudorca crassidens</i>	M - 530	MOVI 01882
	21	<i>Balaenoptera bonaerensis</i>	F - 362	MOVI 06244
	22	<i>Trichechus manatus</i>	SI - CT indet.	CMA 01S0111/13
	23	<i>Trichechus manatus</i>	Neonato	CMA 01S0111/309
24	<i>Arctocephalus tropicalis</i>	M - 157	MOVI 06120	
25	<i>Arctocephalus australis</i>	M - 173	MOVI 06155	
26	<i>Otaria byronia</i>	M - 244	MOVI 06675	
27	<i>Otaria byronia</i>	F - 166	MOVI 06115	

Criteria that led to development of the technique

- anatomical correction
- low bone intervention
- assembly reversibility
- minimal visual interference of the assembly materials and support structures



Basics materials and tools required for the assembly





To order



To Fix



To Drill



To apply



To glue



To shape

SCHEMATIC SUMMARY OF THE ASSEMBLY

1 Initial evaluation

- 1.1 Sort the bones
- 1.2 Glue the epiphyses
- 1.3 Apply protective resin

2 Assembling the parts

- 2.1 Skull
 - 2.1.1 Fix hemimandibula
 - 2.1.2 Fix teeth
 - 2.1.3 Drilling atlas
- 2.2 Spine
 - 2.2.1 Fix Double Guide
 - 2.2.2 Fix vertebrae
 - 2.2.3 Fix the last vertebrae
 - 2.2.4 Glue chevrons
 - 2.2.5 Fix ribs
 - 2.2.6 Fix the sternum
- 2.3 Fins
 - 2.3.1 Fix fins

3 Final assembly

- 3.1 Fix the skull
- 3.2 Fix hyoid
- 3.3 Fix scapulae and fins
- 3.4 Fix vestigials

4 Molding

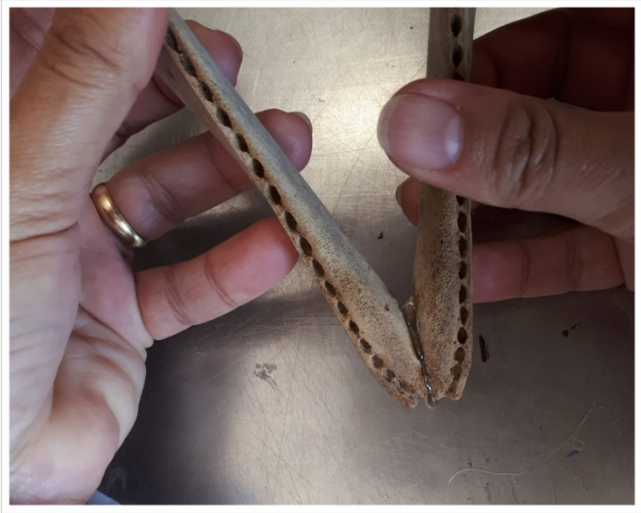
- 4.1 Shaping

1 Initial evaluation

- 1.1 Evaluate and order bones anatomically
- 1.2 Glue the epiphyses
- 1.3 Apply protective resin

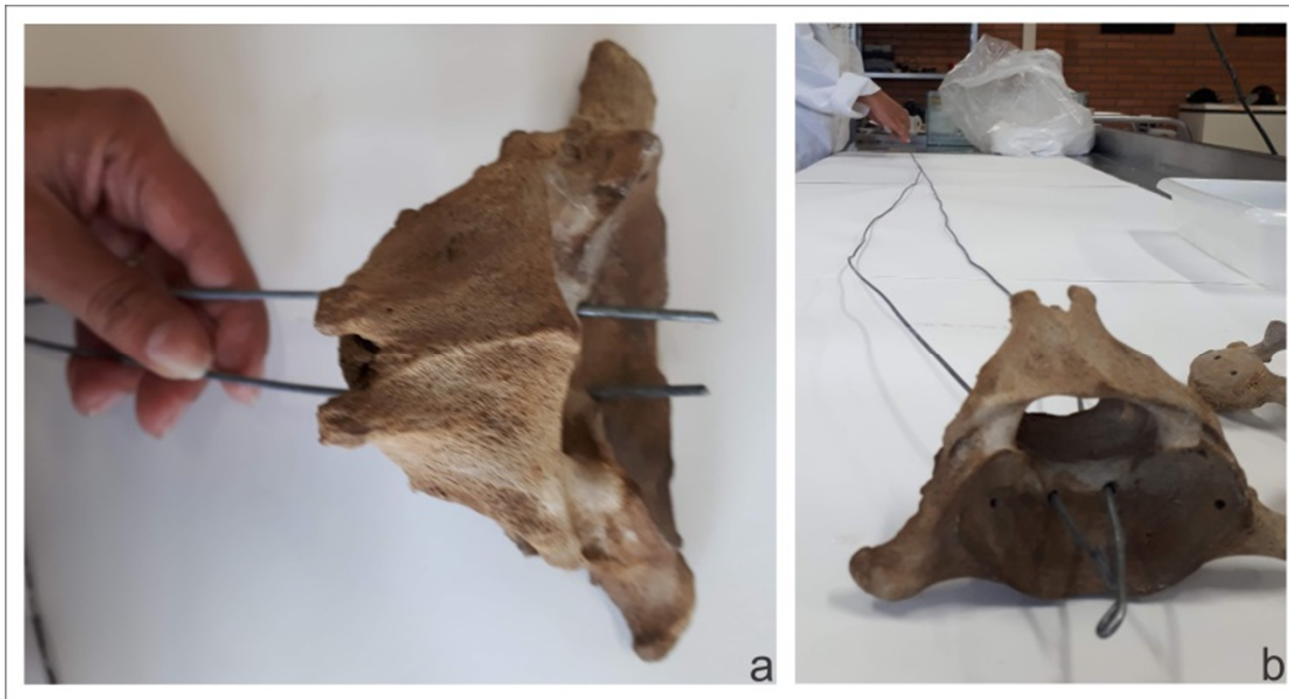
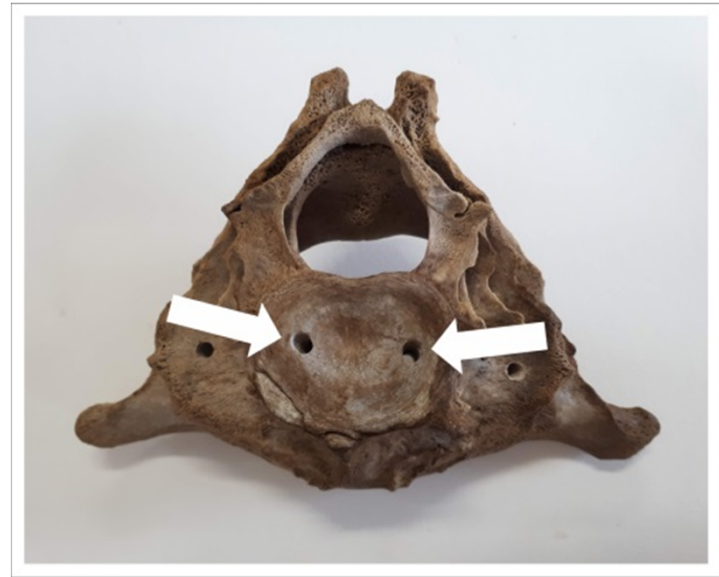


2 Assembling the parts
2.1 Skull
2.1.1 Fix hemimandulae.
2.1.2 Glue teeth
2.1.3 Drilling atlas



2.2 Spine

2.2.1 Fixing Double Guide to Atlas



2.2 Spine

2.2.1 Fixing Double Guide to Atlas

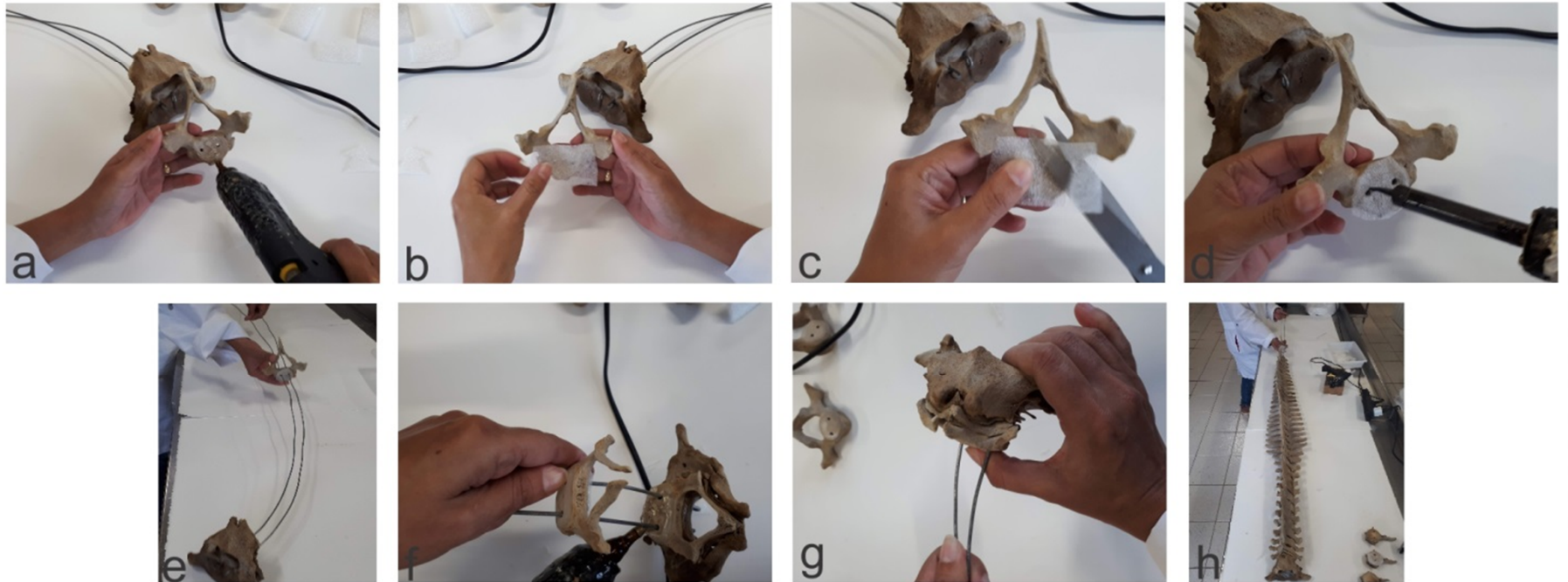
2.2.2 Fixing vertebrae



2.2 Spine

2.2.1 Fixing Double Guide to Atlas

2.2.2 Fixing vertebrae



2.2 Spine

2.2.1 Fixing Double Guide to Atlas

2.2.2 Fixing vertebrae

2.2.3 Fixing the last caudal vertebrae



2.2 Spine

2.2.1 Fixing Double Guide to Atlas

2.2.2 Fixing vertebrae

2.2.3 Fixing the last caudal vertebrae

2.2.4 Glue chevrons



2.2 Spine

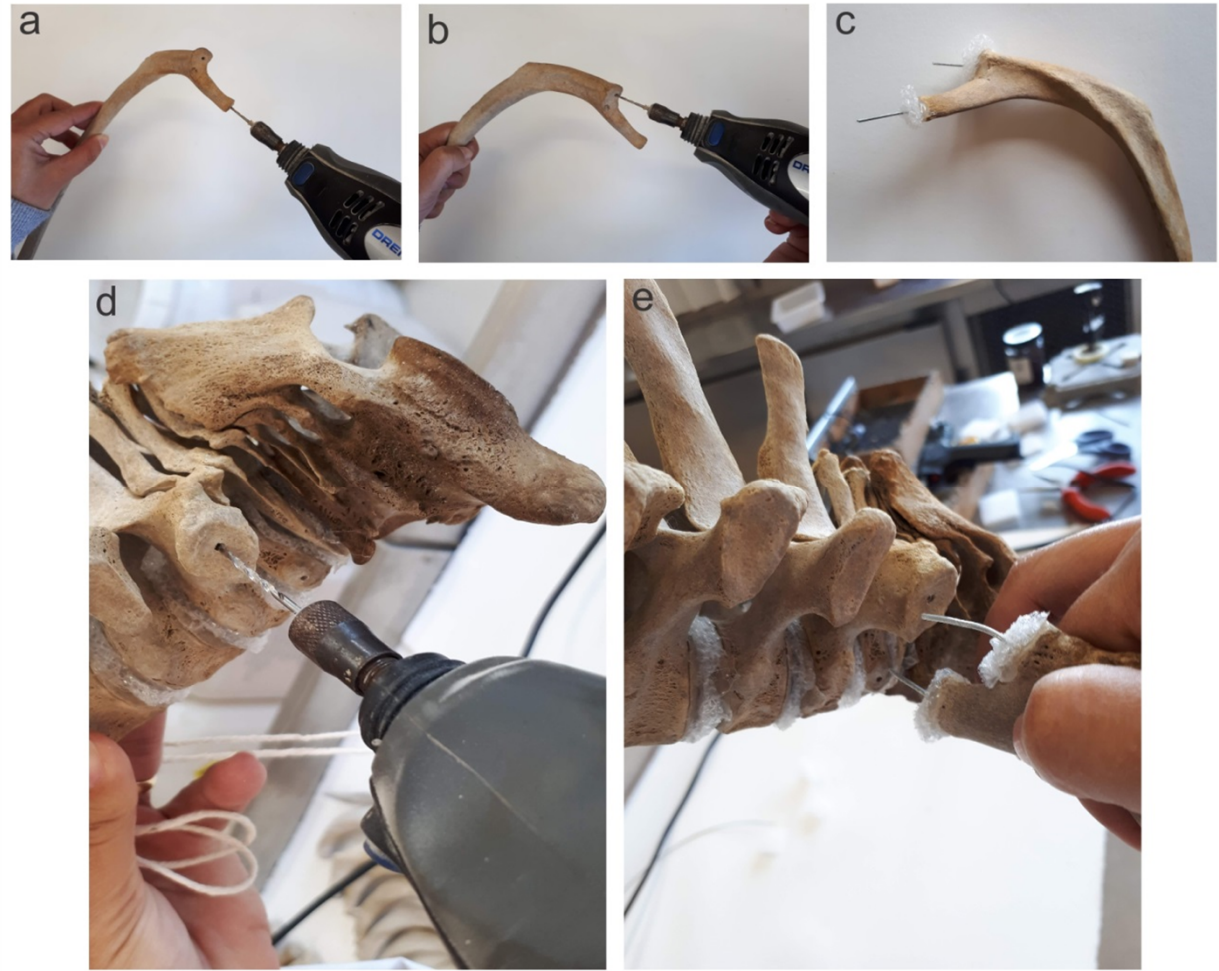
2.2.1 Fixing Double Guide to Atlas

2.2.2 Fixing vertebrae

2.2.3 Fixing the last caudal vertebrae

2.2.4 Glue chevrons

2.2.5 Fixing Ribs



2.2 Spine

2.2.1 Fixing Double Guide to Atlas

2.2.2 Fixing vertebrae

2.2.3 Fixing the last caudal vertebrae

2.2.4 Glue chevrons

2.2.5 Fixing Ribs

2.2.6 Fixing sternum



2.3 Fins
2.3.1 Fixing fins



3 Final assembly
3.1 Fixing the skull



- 3 Final assembly
- 3.1 Fixing the skull
- 3.2 Fix hyoid



3 Final assembly

3.1 Fixing the skull

3.2 Fix hyoid

3.3 Fixing scapulae and fins



3 Final assembly

3.1 Fixing the skull

3.2 Fix hyoid

3.3 Fixing scapulae and fins

3.4 Fixing vestigals



4 Finishing
4.1 Shaping the finish



4 Finishing
4.1 Shaping the finish















Thanks
very
much!