Sounds, signs, words:
the Michela system and the production of the
parliamentary reports at the Senate

The birth of parliamentary reporting in Italy

- In the Subalpine Parliament the reporting office was organized by Cavour
  (Turin 1848-1861)

- Pen shorthand writing was used

- Then also at the Senate of the Italian Kingdom
  (Turin 1861-1865; Florence 1865-1871; Rome 1871-1946)

- From 1880 the Michela stenotyping system has been introduced at the Senate
  for verbatim reports

- From 1882 summary report has been introduced, too
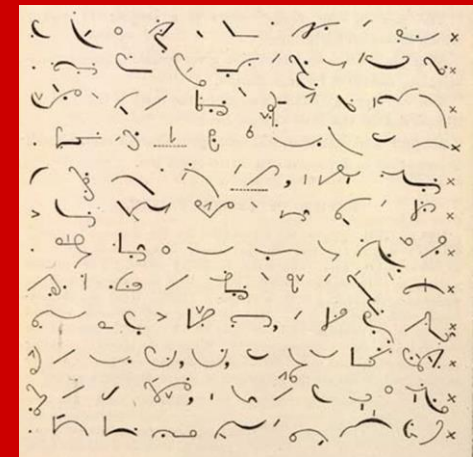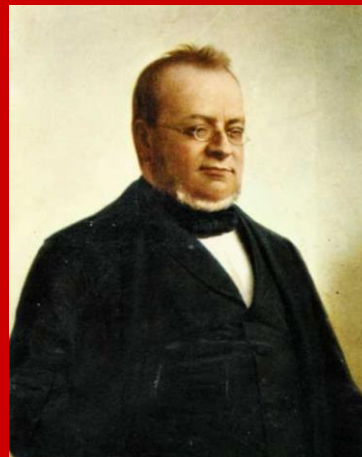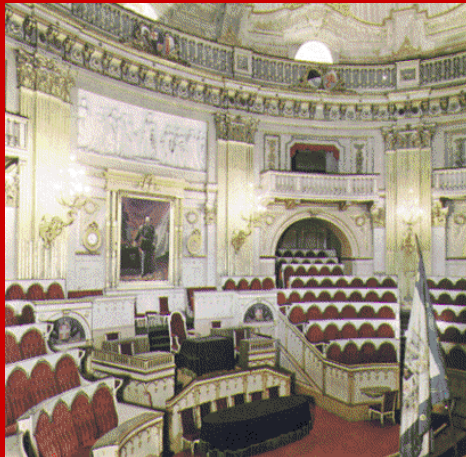
Garibaldi's letter

The reporting instrument at the Senate from 1880: The Michela keyboard

The ancient model,
set on a wood tripod,
was used for over a century.

It could be easily moved and
produced a stripe of paper
with symbols.
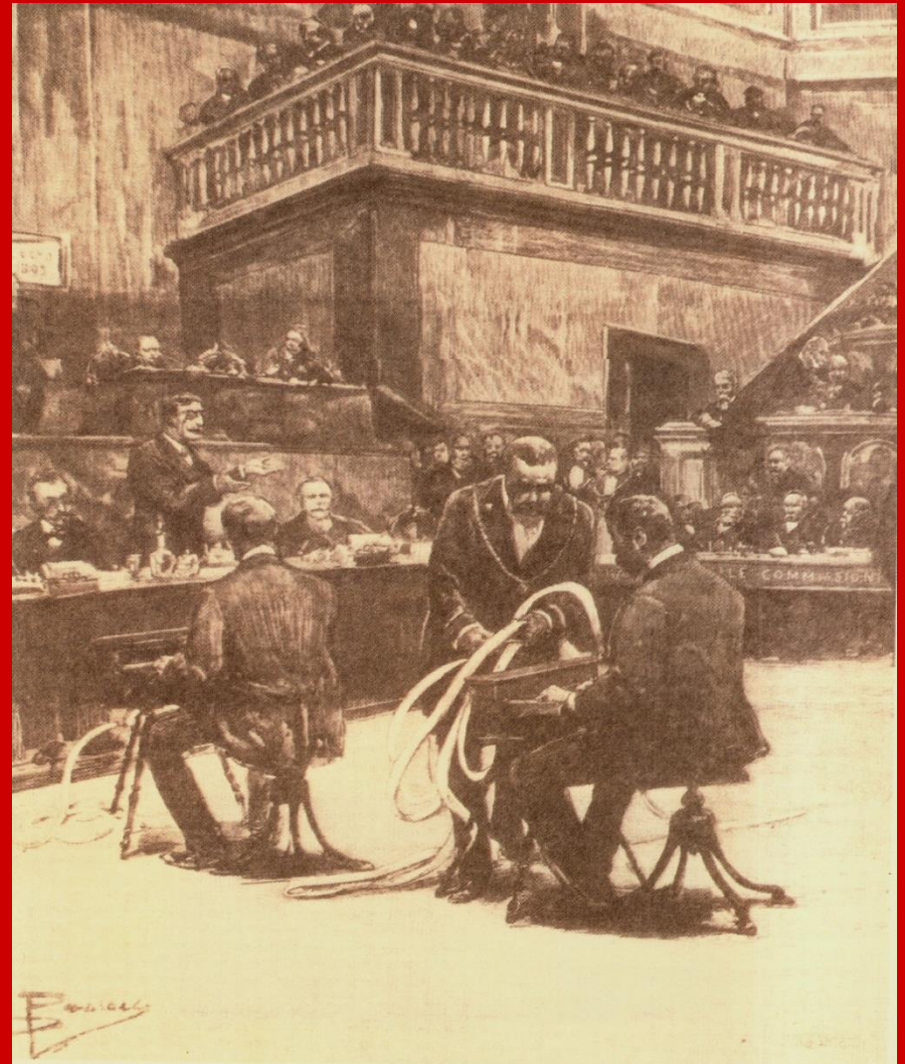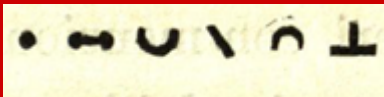
The Michela keyboard as a witness of history:
The Floor of the House
during the Italian Kingdom (1871-1946)

The Senate as a High court of Justice in 1908
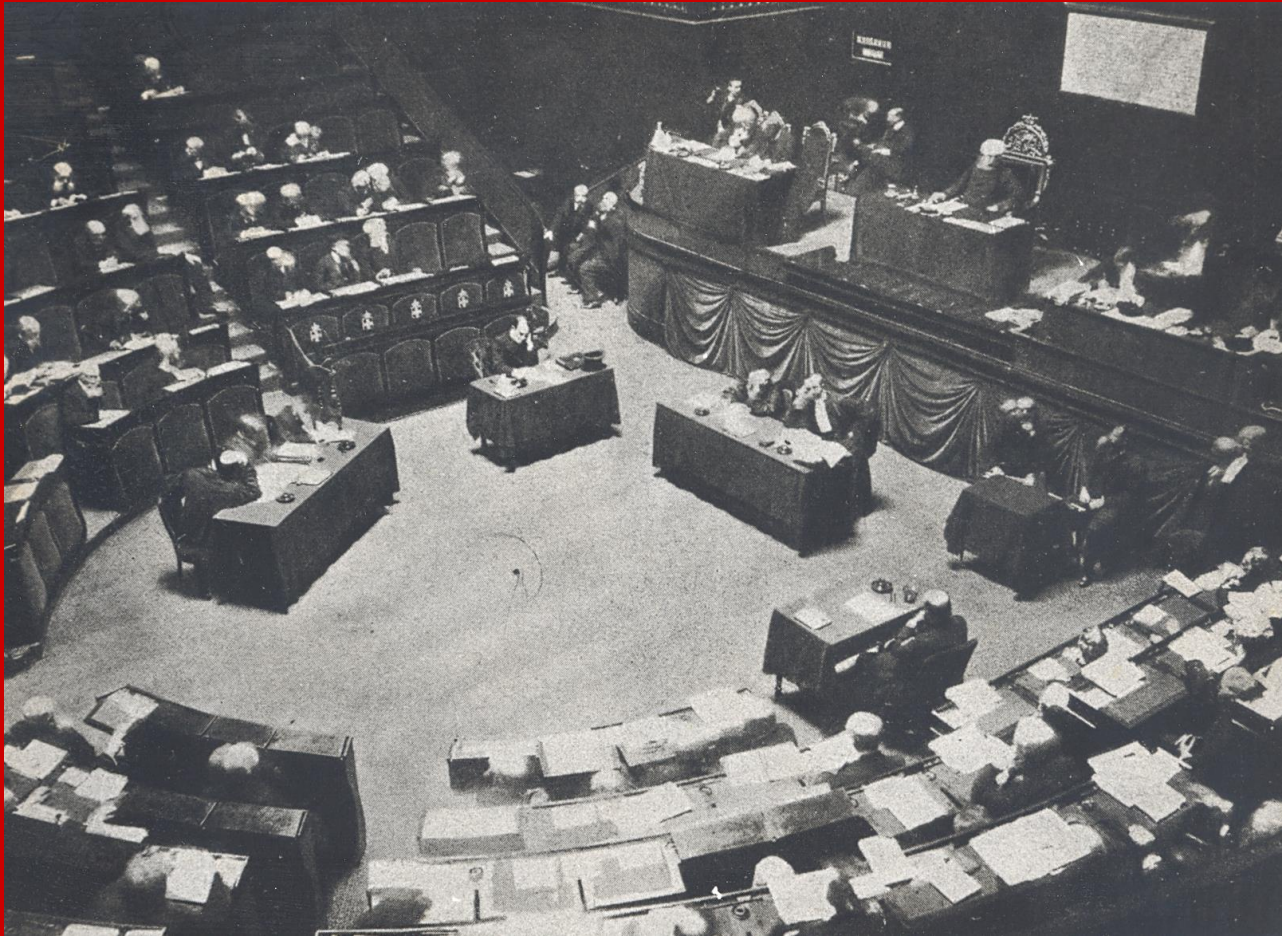
The position of the reporters

During Mussolini dicatorship in 1929: the Lateran Pact

The shift turns

The proclamation of the empire in 1936

Inauguration speech
of the President of the Senate Bonomi
may 8th, 1948

Tambroni Government in 1960

The Nineties:
the Vergoni mechanical keyboard

In the 4th Committee

The inventor of the Michela keyboard:
Antonio Michela Zucco (1815 – 1886)
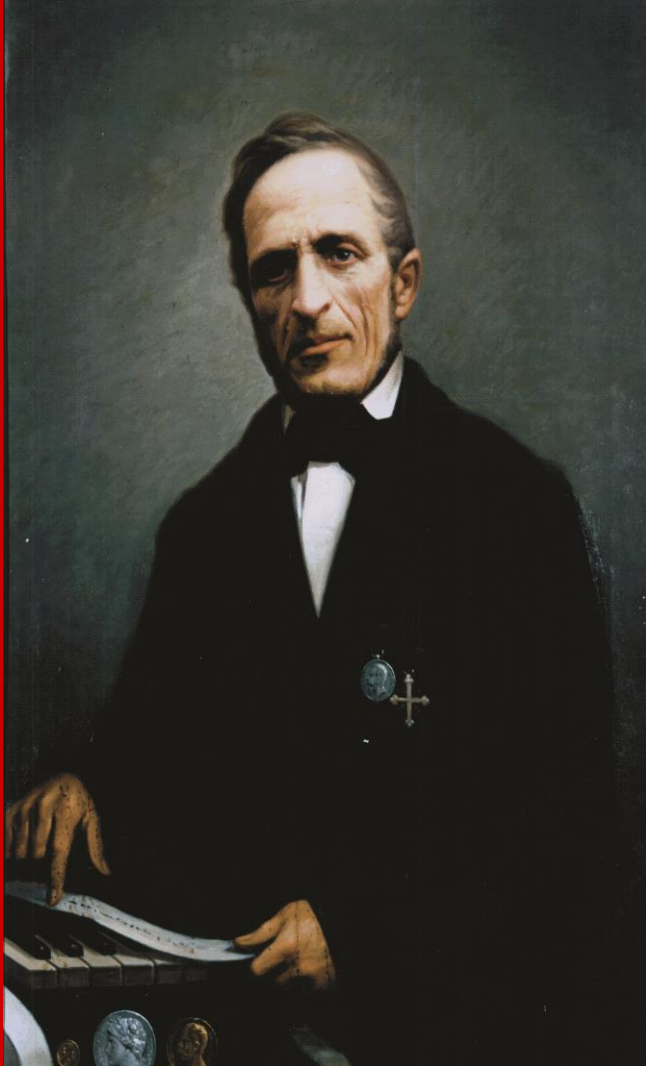
A school TEACHER keen on drawing, music and anatomy
he studied the human vocal apparatus and classified all the sounds that it could produce

Searching a UNIVERSAL ALPHABET
to make all men brothers and sisters (like IPA)

He invented:

- A PEN PHONETIC WRITING SYSTEM
- A MACHINE PHONETIC WRITING SYSTEM

That were both universal
(to write and reread, even after a long time
and without knowing them,
all the languages of the world)

The recent adaptation for arabic language
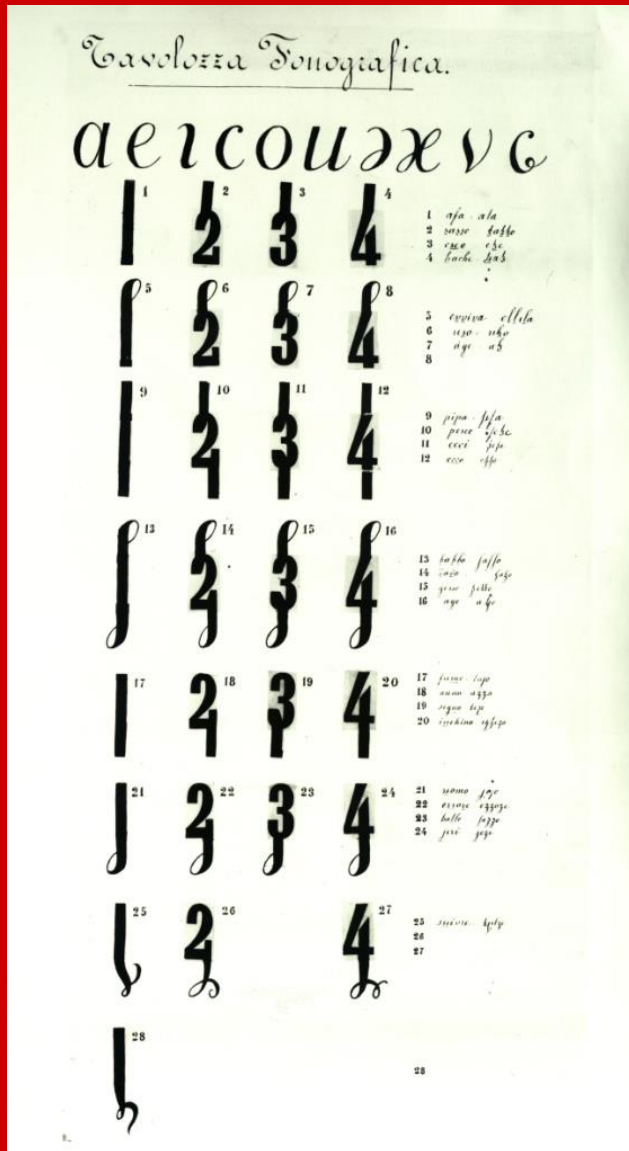
SOUNDS, SIGNS, WORDS: The phonographic palette

Elements of the articulations		Organs that generate the articulations			
		LIPS (Bilabial/labiodental)	TONGUE		
			FRONT (Alveolar)	CENTRAL (Postalveolar)	BACK (Velar)
BLOW (Fricative)	PURE (Voiceless)	1 - F [f] Voiceless labiodental fricative	2- S [s] Voiceless labiodental fricative	3- Sc [ʃ] Voiceless postalveolar fricative	4- H [x] Voiceless velar fricative
	MIXED (Voiced)	5 - V [v] Voiced labiodental fricative	6 - s [z] Voiced labiodental fricative	7 - Ge [ʒ] Voiced postalveolar fricative	8 - H [ɣ] Voiced velar fricative
MODIFICATION (Plosive / affricate)	HARD (Voiceless)	9 - P [p] Voiceless bilabial plosive	10 - T [t] Voiceless dental plosive	11 - C [tʃ] Voiceless postalveolar affricate	12 - CK [k] Voiceless velar plosive
	SOFT (Voiced)	13 - B [b] Voiced bilabial plosive	14 - D [d] Voiced dental plosive	15 - G [dʒ] Voiced postalveolar affricate	16 - G [g] Voiced velar plosive
VOICE	NASAL	17 - M [m] Bilabial nasal	18 - N [n] Labiodental nasal	19 - Gn [ɲ] Palatal nasal	20 - n [ŋ] Velar nasal
	ORAL (Semiconsonant, approximant, liquid)	21 - U [u] / [w] Back close vowel / Velar semiconsonant	22 - R [r] Liquid labiodental trill	23 - L [l] Liquid lateral alveolar approximant	24 j [j] Central close vowel / Palatal semiconsonant
		25 (tedesco) ch [χ] Voiceless uvular fricative	26 (inglese) th [θ] / [ð] Voiceless / Voiced dental fricative		

The correspondence between phonemes, numbers, symbols and keys on the keyboard

Planche I.ère — Procédé Syllabique-instantané-stéréofonographique Michelal. Explication et usage du Procédé base principale de l'invention et but du Brevet demandé

The distribution of the sounds on the keyboard:
The Michela writing system is phonetic and syllabic
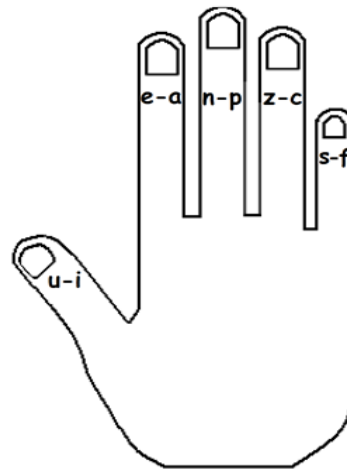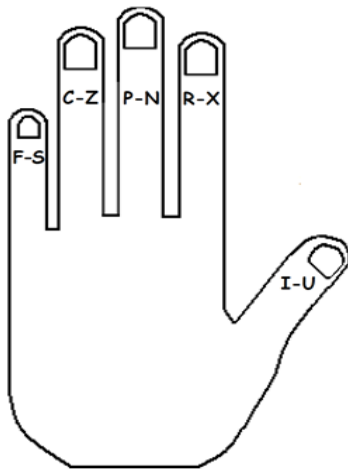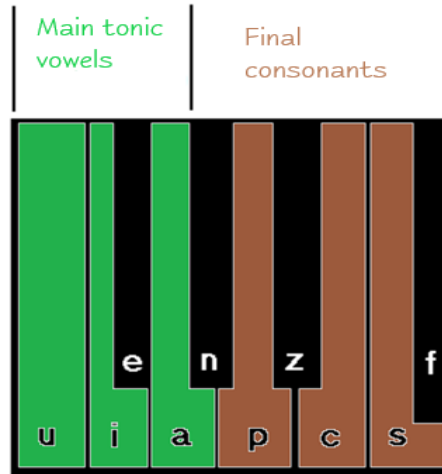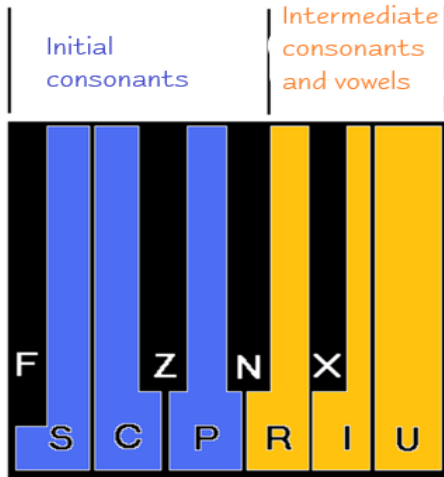
The parts of the syllables and the position of the hands

| 1 | 2 | 3 | 6 | 9 | 18 |

The original symbols and the numbers

The internal mechanics of the Michela keyboard

The silver medal at the
1878 Paris Universal EXPO

The stenotelegraph
by Cassagnes

- The Michela system has been originally conceived as a help for visually impaired
- The paper stripe was punched in relief
- Today we adapted it to Braille alphabet

The volution of the keyboard, from the mechanical, to the electric, electronic and digital version

Nowadays: digital stenotyping and the real time text, the perfect interaction bewtween man and machine

The on line publication timing of the real time drafts, during the session itself in 30 minutes (from 2001)

The need to be fast in catching up whatever they say and whatever they do

The forced alignment

The organization of the workflow

- The TRANSCRIPT in the plenary (5 minutes)
- The EDITING phase (30 minutes):

  Passage from words to text, queries of names and legislative provisions, describing physical events (physiology, in italics and round brackets), inputting formulaic phrases of procedural steps and of tags (hypertext marks)

- The first CORRECTION level (by revisors, who spend 40 minutes in the plenary) and then final revision (harmonization with annexes + indexing)

- Final ON LINE PUBLICATION before the following day and ARCHIVING in the databases

The staff

- 28 people: 15 stenotypists and 13 reporters (for both Plenary and Committees)

- Transcript + editing in the plenary (9-12)
- Plenary revisors (4) – Commitee revisors (2)
- Final harmonization in Plenary (1)
- On line Publication of Plenary (2)
- Annex to the Plenary session (2)
- Plenary Session Communiqué (1)

Accessibility
of the Michela writing system:

- Youtube tutorials to adapt a music keyboard as a Michela keyboard

THE MICHELA STENOTYPE SYSTEM CHANNEL

Michela stenotyping system theory and dictionaries available on line for free: https://github.com/benoit-pierre/plover_michela

Open source free softweare Plover

Test and occasional Michela workshops for students and schools at the Senate Library:

Disability

- Digital stenotyping and real time close captioning for hearing-impaired

- Michela system with Braille alphabet and vocalizer for visually impaired (International Braille day)

# To play a Michela keyboard like a piano:

- The italian-australian artist Angelica Mesiti
- presented her project «Assembly» during the 2019 Venezia Blennale
- Where we wrote the poem «To be written in another tongue» of the australian David Malouf with a Michela keyboard linked to a music software (like a pianola)
- So we played the text and listened to its music

ANGELICA MESITI
ASSEMBLY

Angelica Mesiti, *ASSEMBLY*, 2019 (production still) three-channel video installation in architectural amphitheater. HD video projections, colour, six-channel mono sound, 25 mins, dimensions variable. © Photography: Bonnie Elliott. Commissioned by the Australia Council for the Arts on the occasion of the 58th International Art Exhibition–La Biennale di Venezia, courtesy of the artist and Anna Schwartz Gallery, Australia and Galerie Allen, Paris.

"Through both the metaphor of translation and the act itself, I am exploring the very human and increasingly urgent need we have to assemble in a physical way, in a physical space, in these complex times."
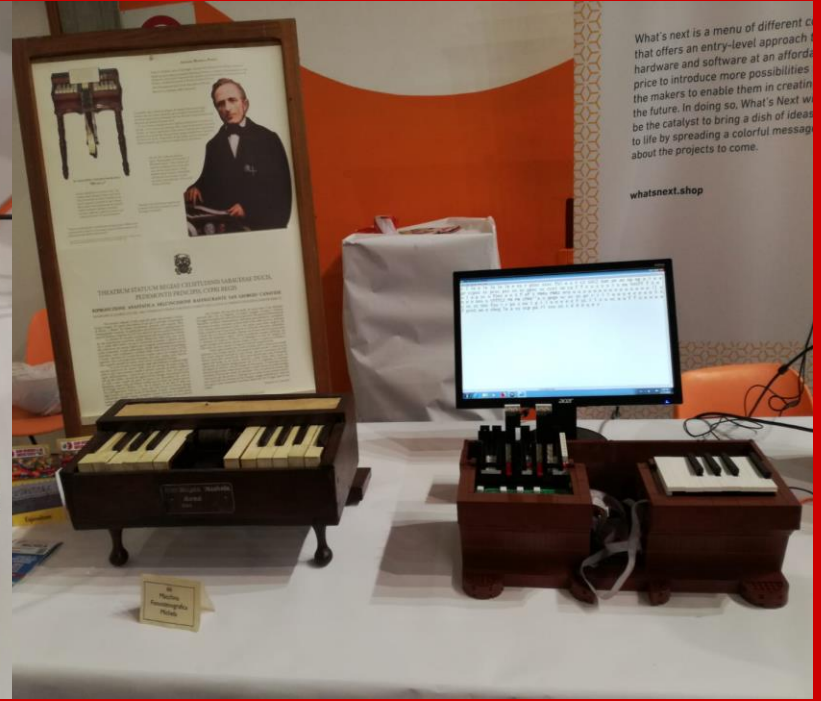ANGELICA MESITI
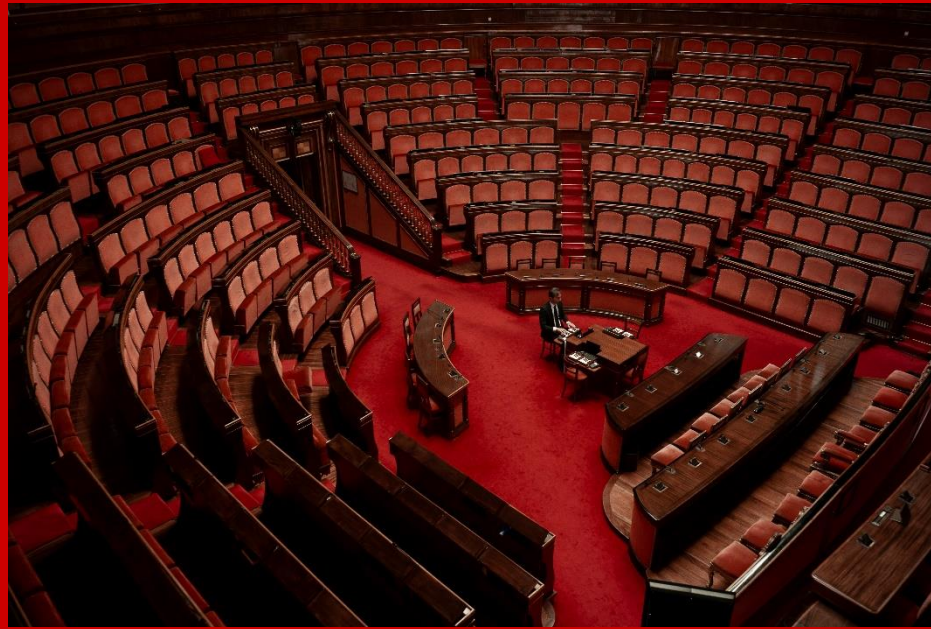
The Venice
2019
Biennale

The old Parliament House
in Canberra
Museum of Australian
Democracy

Latest experimentations:
The DIY LEGO
Michela machine as a game
for passionates and children