

GERB informs:

Vibration Isolation of Buildings

**Project name and site:**

LE CORUM/L'AUDITORIUM BERLIOZ
2000 seats
Montpellier

Building:

Opera, Concert, Congress, etc.

Structure:

Isolated auditorium within the main structure

Noise and Vibration source:

Nearby railway track

Base isolation:

280 prestressable GERB spring elements and Viscodampers.

Vertical natural system frequency 4,0 Hz
Design: GERB S.A., France

Design load:

230.000 kN

Arrangement of spring elements:

Supporting the auditorium including the orchestra pit and stage

Vibration control effect:

Max. noise level measured in auditorium at train traffic: 26 dB(A)
(Reduction: e.g. 20 dB at 32 Hz)

Completion: 1990**Client:**

Ville de Montpellier

Architect:

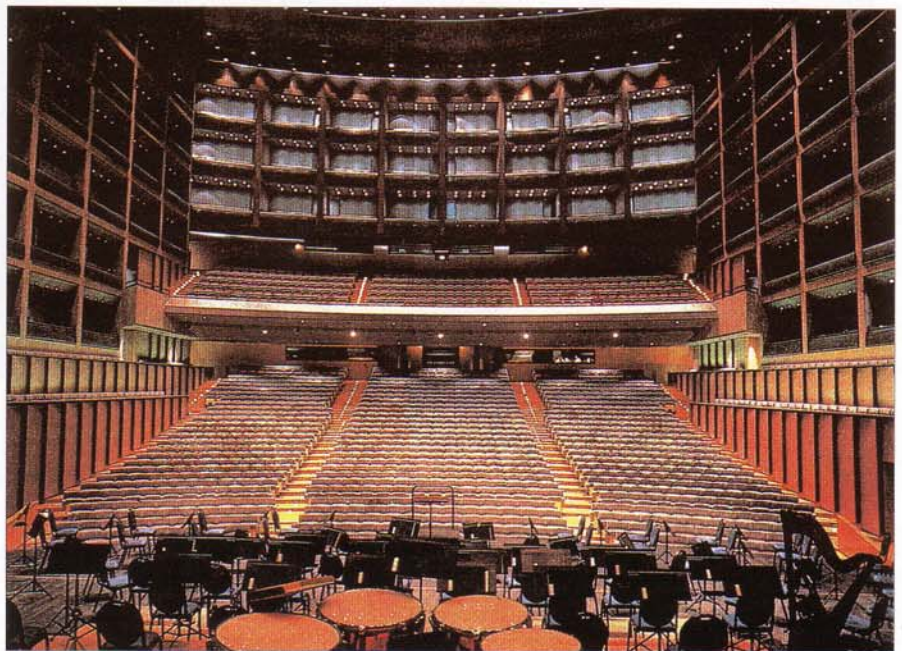
C.P. Vasconi

Vibration + Acoustics:

Commings-Ingemansson S.A.

Civil contractor:

Sogea Languedoc-Roussillon



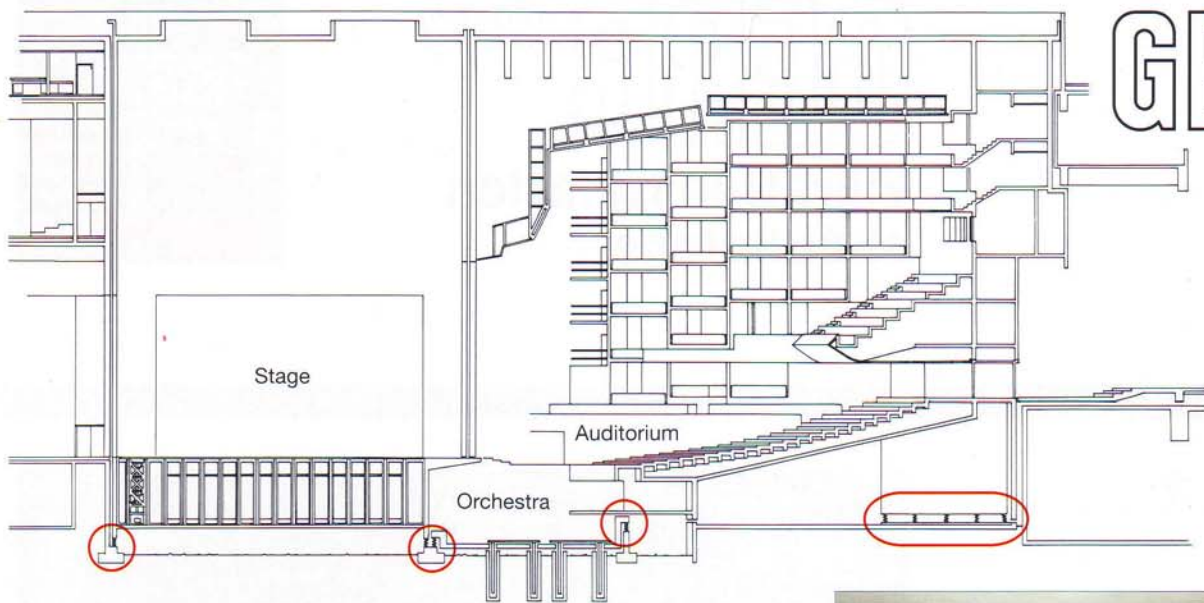
1) Photo: Archipresse



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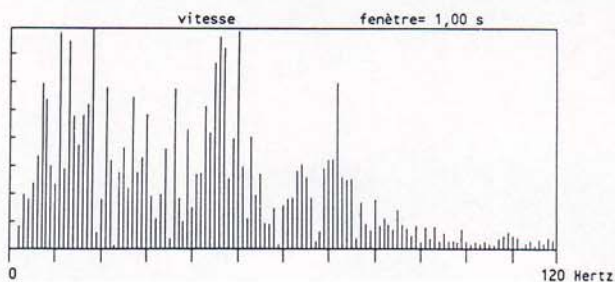
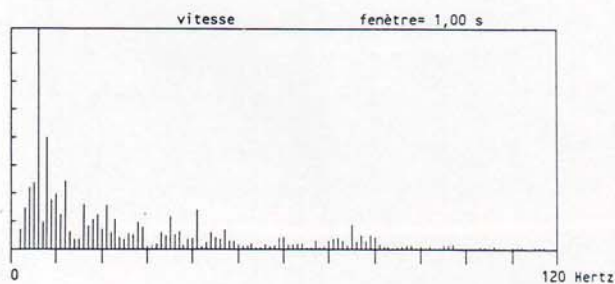


Spring elements in final position

Section through auditorium showing the orchestra pit, stage and arrangement of spring elements



View at site



Vibration spectra at top and bottom of spring element in auditorium area



Spring element at compulsory test

For further information and consultation:

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Reference:
„Vibration Isolation of Buildings“



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Vibration Control Systems