

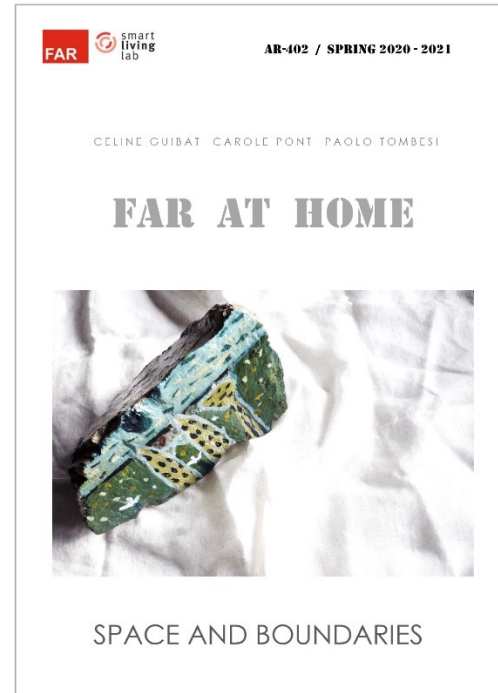


FAR @ HOME – Guitar musicians' facilities in Lavaux

AR-402(f) / Spring 2021

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Duration: Spring Semester



Content: If the FAR LESS atelier in Semester 1 dealt with the mobilization of scarce building resources in humanitarian settings, the atelier FAR MORE in Semester 2 is set to reflect on the role of architecture and technology in an environmentally sensitive and economically specialized rich setting. The place selected for this investigation is Lavaux, the terraced vineyards stony landscape east of Lausanne that stretches along the south-facing northern shores of Lac Lemman. Exploiting a system of land use dating back over one-thousand years, Lavaux was inscribed in the UNESCO list of world heritage sites in 2007, and is now protected from development. But what does development mean in this instance?

Should one exempt, for example, infrastructural interventions aimed at improving the capacity of the wine-producing district to respond to its already defined cultural and musical vocation whilst maximizing the physical use of the land? In the belief that answering a question such as this is critical at the more general level of the relationship between heritage sites and living communities, the atelier will concentrate on a design proposition – SOUNDPROOF LAVAU – for accommodation, rehearsal, and performing facilities for visiting guitar musicians within the Lavaux terraces. This will also provide an opportunity for investigating the many possible design links between spatial boundaries and spatial acoustics in architecture.



Lavaux remains a place of interest to FAR, which has run design studios in the same region in 2019 and 2020. Students will take advantage of the work carried out by their peers on these occasions.



BUILDING PROGRAM

The building program is functionally simple yet challenging in its performance requirements. As indicated, it is for an accommodation, rehearsing and performing facility for visiting guitar musicians within the Lavaux terraces. Its possible locations will be provided by the instructors.

It comprises a rehearsing/performing hall for up to 50 spectators and 6 musicians that must be conceived in line with the crowding and environmental parameters deemed of relevance to both the architectural project and the activity requirements. Flexible in its use, it must nonetheless adapt to its own planned circumstances, which vary from individual-and-private to collective-and-public use. As a sound production-and-fruition enabler, it should support the practice of different (yet specific) types of music and types of guitar.

Access to the hall must be provided by a separate entry/foyer that protects the musical box from external interferences, and which accommodates eventual ticketing functions as well as a cloakroom (for instruments and related material as well if necessary).

Such space must be reachable by a universal design entry path connecting the facility to a point of arrival of the transport infrastructure.

A double bathroom must be provided for all types of users, as well as a kitchenette that can be used for casual food preparation as well as a galley for public gatherings.



While there are no backstage areas as such, four minimum size bedsitters/change rooms must be provided for occasional resting or show preparation.

The space of the hall should double outside as a usable deck or as an area comprised within the physical/architectural domain of the project. If possible, the conception of this area should strive to make it weather- and context-proof.

Design principles

The materialization of this program is expected to take place in obedience to a number of assumptions:

- In principle, the facility can be used year-round; it should therefore reflect consideration of variations in climatic and illumination conditions. The first includes users' physical impact on the space.
- Economy of means is a characteristic of the landscape of reference. Such quality should pervade the spirit of the project as well. Demountability can also be considered as a character of the local environment.
- Given the program, spatial performance quality should not efface, yet take precedence over, boundary composition quality.
- In light of its universal value, the architecture of the project should defer to the Lavaux site rather than the other way around. Particularly, site disruption should be minimized, even during construction.
- Given the primacy of the environment, artificial controls should be kept to a minimum, spatially (e.g. in terms of air flows and hygrometry) as well as functionally (e.g. in terms of acoustics). Whilst the provision of external views would normally be seen as a logical response to the setting, it must not work against the specific program.
- In any case, the illumination strategies of the space must be specific to the tasks and the patterns of use envisioned. During daytime, natural internal visibility is prized, whilst, at night, external views become an object of design attention.
- The vision of the structure should consider ordinary maintenance as a sustainable design strategy.

ORGANIZATION

As a group, students will start with a study of guitar's material and structural engineering challenges as well as spatial performance requirements. They will then analyse, empirically, the relationship between sound, performance and physical boundaries as this applies to different architectural environments. Eventually they will work individually or in pairs to develop building proposals that, while responding to the functional program provided, will address the technical and environmental challenges identified in the analysis whilst envisioning the architectural terms of the integration of the facility with monumental landscape and place.

The unfolding of these activities will be facilitated pedagogically through the following calendar:



Studio introduction

This initial stage will be used to make the group familiarise with the place and the subject matter, and experiment with the sound of materials and assemblies against mass, volume, rigidity, reverberation. To this end, three small exercises will be given, dealing with different ways of looking at spatial acoustics and their mechanics. These assignments are aimed at teasing out both the technical issues and the strategies for responding to them. The building program of the atelier will be introduced at the end of this preparatory process.

22 February	9h15 - 12h00 / 14h15 - 17h00 (zoom session) Introductory session: 1. Us; 2. Why sound? Why Lavaux? 3. Previous work.
23 February	9h15 - 13h00 (on site) / 14h15 - 16h00 (zoom session) Lavaux site visit / Preparatory assignments introduction. <u>Assignment 1</u>
1 March	9h15 - 12h00 (zoom session) Guitar – social history and engineering. (Tombesi and others)
2 March	9h15 - 12h00 / 14h15 - 17h00 (zoom session) Sound engineering and spatial acoustics. (Griginis) <u>Assignments 2/3</u>
8 March	Independent work.
9 March	9h15 - 12h00 (zoom session) Lavaux – environment and social history, infrastructure and building fabric. 14h15 - 17h00 (zoom session) Program articulation and analysis.

Spatial design – dimensions, variables and tools

The second stage focuses on the design of space (as opposed to the design of physical boundaries). Students will be introduced to particular ways of determining spatial needs and composing functions in line with these. Concepts of proxemics, topology and spectacle will be at the centre of the discussion. At the end of this stage, strategies for arranging the spaces imagined on the specific site against the constraints of actual construction will start being considered.

15 March	9h15 - 12h00 / (14h15 - 17h00 if necessary) Preparatory assignments review.
16 March	9h15 - 12h00 (zoom session) Design tools, parameters, output. Proxemics and topology stage introduction.
22 March	9h15 - 12h00 / (14h15 - 17h00 if necessary) Proxemics and topology review.
23 March	9h15 - 12h00 Theatre and spectacle stage introduction.
29 March	9h15 - 12h00 / (14h15 - 17h00 if necessary) Theatre and spectacle stage review.



30 March 9h15 - 12h00 / 14h15 - 17h00
Verification of acoustic concepts. Siting and construction introduction.

Design siting – strategies of physical intervention

The third stage will be very short and coincide with the non-instruction period at Easter. The two weeks will be used to catch up with the work required and to develop and verify the siting strategy.

5 April Easter non-instruction period

6 April Easter non-instruction period

12 April 9h15 - 12h00 / 14h15 - 17h00
Project advancement review.

13 April 9h15 - 12h00 / 14h15 - 17h00
Siting and construction review.

Physical building development

The fourth and last stage focuses on the development and finalization of the design proposal. Here the teaching mode will switch to (digital) desk crits and will concern specific topics each week. Time schedules will be provided in due course. A final overall review will conclude the instruction period prior to the charrette preceding the public critique on June 1.

19-20 April Program finalization and start of design development. Desk crits.

26-27 April Finalization of design development (space, surfaces and sections). Desk crits.

3-4 May Start of construction design (sections, materials and assemblies). Desk crits.

10-11 May Finalization of construction design. Desk crits.

17-18 May Overall project review. Collective desk crits.

1 June Final project review / presentation of sound model.

SUBMISSION REQUIREMENTS

For the final critique, students must produce three A0 drawings articulating, respectively: human landscape; physical boundaries of the landscape; contextual siting and building assembly. In addition, and COVID limitations permitting, one acoustic analysis and sound check of the space imagined. Specific details will be provided in class in due course.

ASSESSMENT

Each of the three assignments is worth 5/60, for a section total of 15/60.

The final project will command up to 40/60. An additional 5/60 will be assigned for timely progression and proactive participation in the lecture and the tutorial programs.



Assessment criteria for the final project are as follows:

a) Building brief compliance	08/40
b) Designed content	08/40
c) Spatial performance	08/40
d) Problem integration	08/40
e) Technical resolution	08/40

STUDIO CONTACTS

The studio team comprises the following:

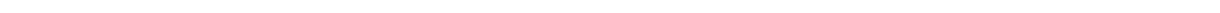
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(INITIAL) MATERIALS AND REFERENCES

Acoustics

Fumeaux, Loïc Vivien. « Intégration des critères de durabilité dans le processus de conception des constructions temporaires à vocation événementielle », 2016, 440.
<https://doi.org/10.5075/epfl-thesis-7040>.

La salle de musique de La Chaux-de-Fonds: un lieu et une acoustique d'exception.
Neuchatel: Editions Alphil, 2017.

Leo L. Beranek. *Music, Acoustics & Architecture*. New York London: Wiley, 1962.

Lutherie

Ray, John. *La escuela granadina de guitarreros =: The Granada school of guitar-makers.*
Édité par Alberto Cuéllar. 1.ed. Granada: Diputación Provincial de Granada, 2014.

Sloane, Irving. *Classic Guitar Construction: [Diagrams, Photographs, and Step-by-Step Instructions]*. Westport Conn.: The Bold Strummer, 1989.

Guitar history

Andia, Rafael. *Libertés et déterminismes de la guitare: du baroque aux avant-gardes.*
Univers musical. Paris: L'Harmattan, 2015.

Evans, Tom. *Le grand livre de la guitare: de la Renaissance au rock : musique, histoire, facture, artistes.* Paris: AMichel, 1979.

Turnbull, Harvey. *The Guitar: From the Renaissance to the Present Day*. London: BTBatsford, 1974.

Tyler, James. *The Guitar and Its Music: From the Renaissance to the Classical Era*. Early Music Series. Oxford ; New York: Oxford University Press, 2002.

Wade, Graham. *Traditions of the Classical Guitar*. London: JCalder, 1980.

Playlist:

16th, Renaissance :

Luis Milan : <https://www.youtube.com/watch?v=duHMeCndpjo>

Luis de Narvaez : <https://www.youtube.com/watch?v=nLRhFXX-v0s>

17th-18th, Baroque :

Gaspar Sanz : <https://www.youtube.com/watch?v=vkJ96CgWxII>

Sylvus Leopold Weiss : <https://www.youtube.com/watch?v=jUivBAD1j2g>

19th :

Francisco Tarrega : <https://www.youtube.com/watch?v=OOsRMECWKAE>

Fernando Sor : <https://www.youtube.com/watch?v=7kUc7ZbGqzA>

20th :

Augustin Barrios Mangoré : <https://www.youtube.com/watch?v=RGwvXCYgiuU>

Joaquim Malats : https://www.youtube.com/watch?v=bl3K-Ir_MWU

Isaac Albeniz : <https://www.youtube.com/watch?v=inBKFMB-yPg>