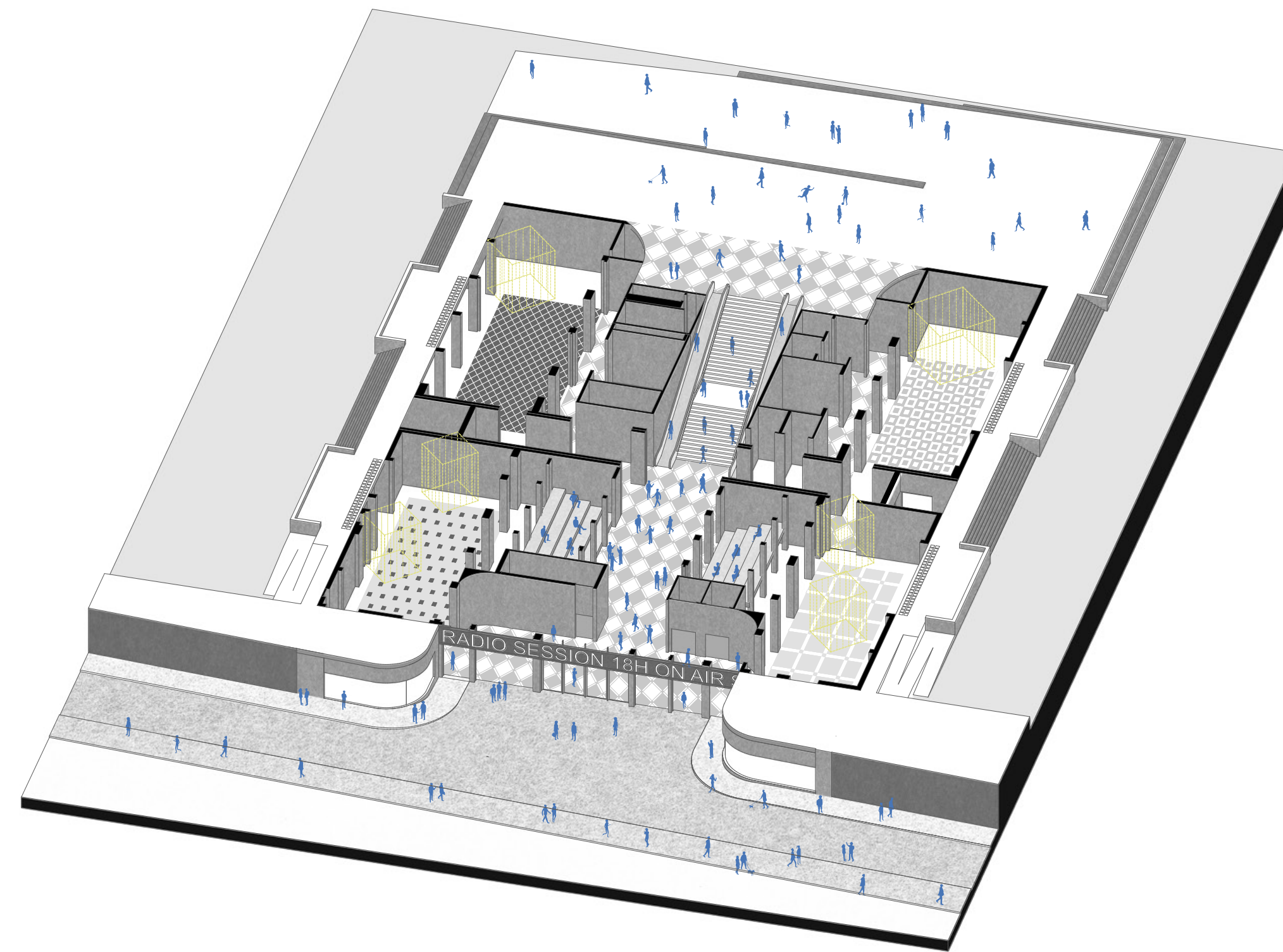




people + air + sound

Masterproject

Felix Tran

Topic C Spring 2020

Prof. An Fonteyne

Thomas Klement

Begleitfach Architektur und Gebäudesysteme

Prof. Dr. Arno Schlüter

Begleitfach Bautechnologie und Konstruktion

Dozentur Daniel Mettler und Daniel Studer



Basel flow plan



Underground network plan



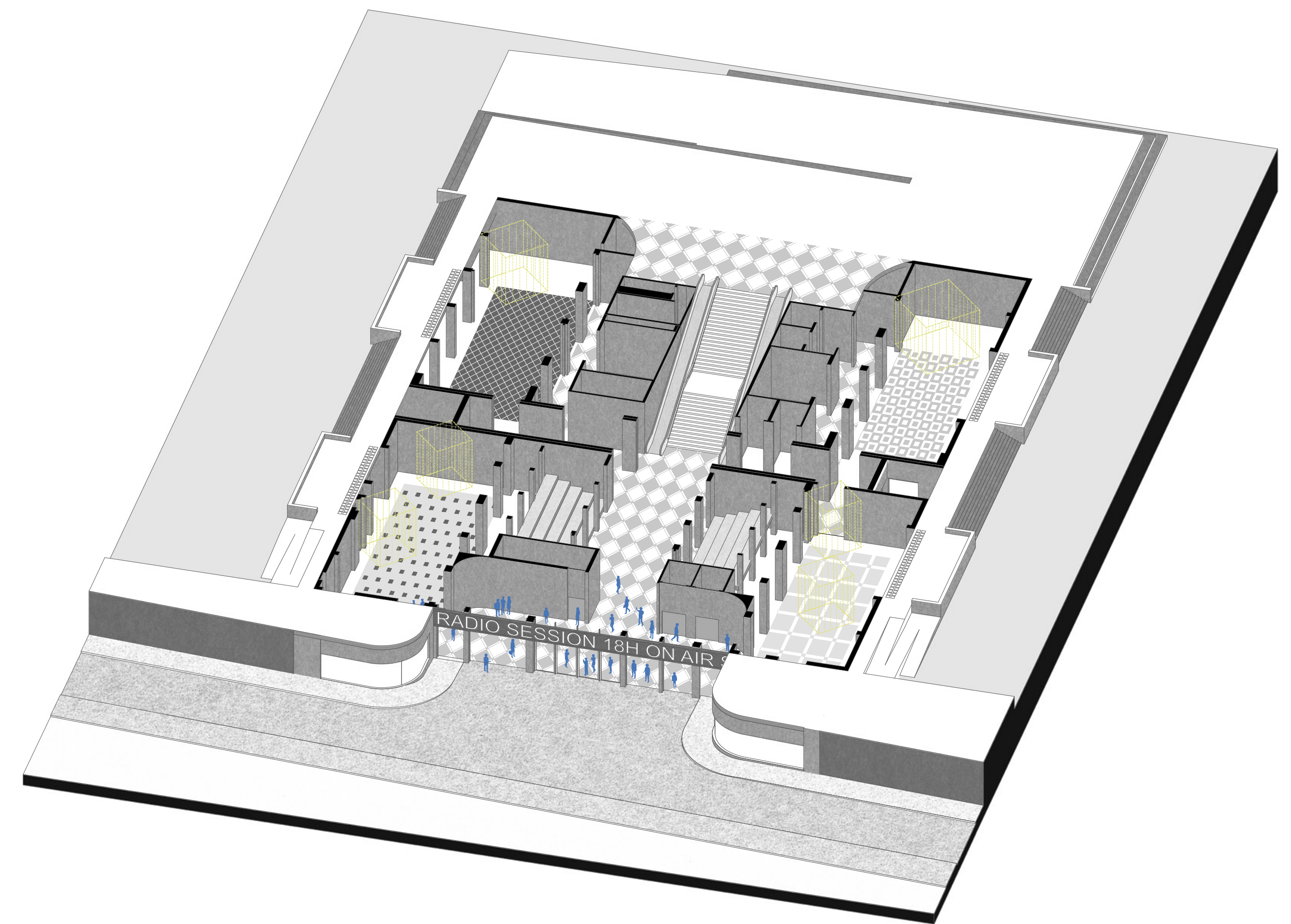
Site plan



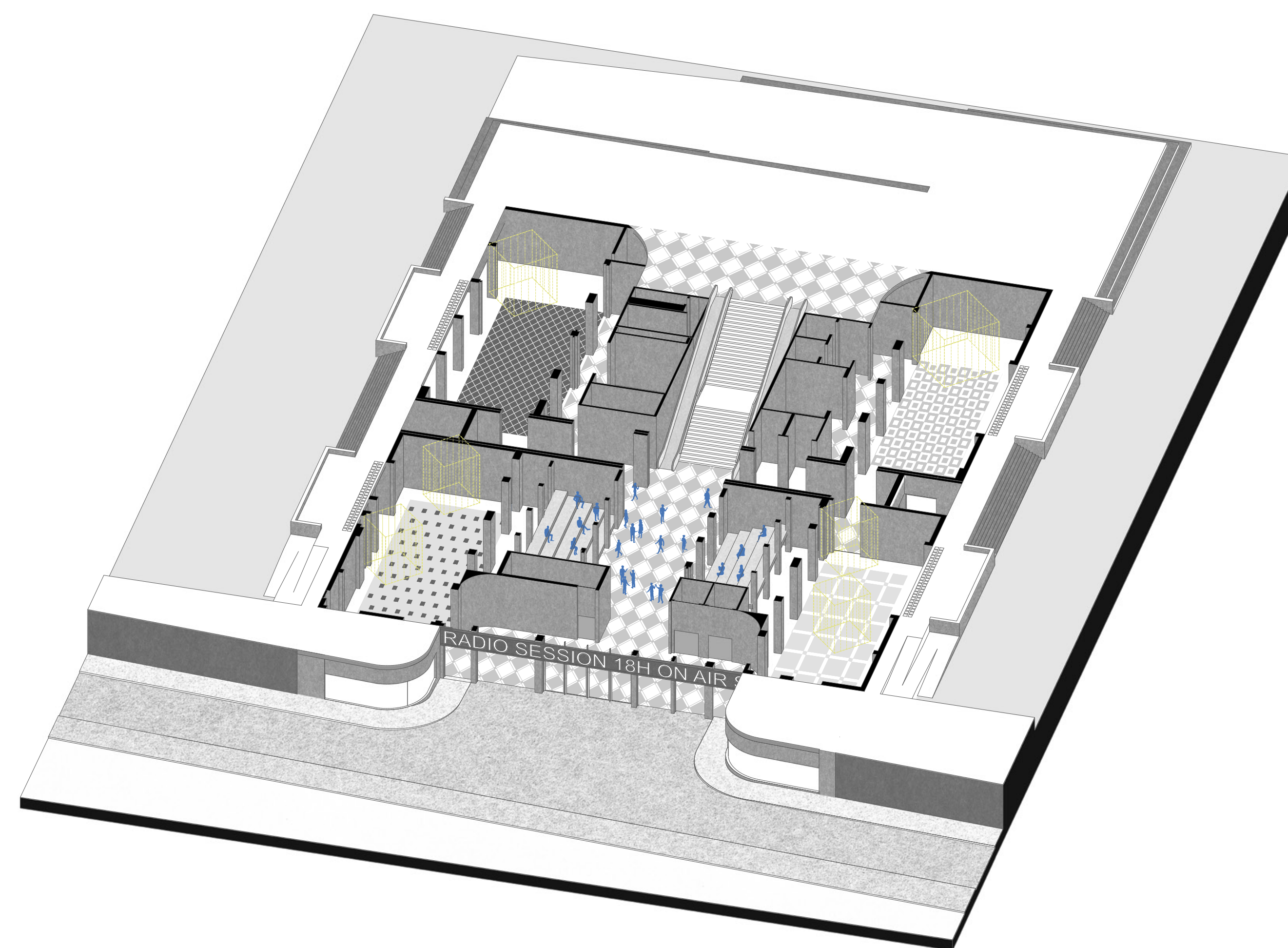
Section through passage



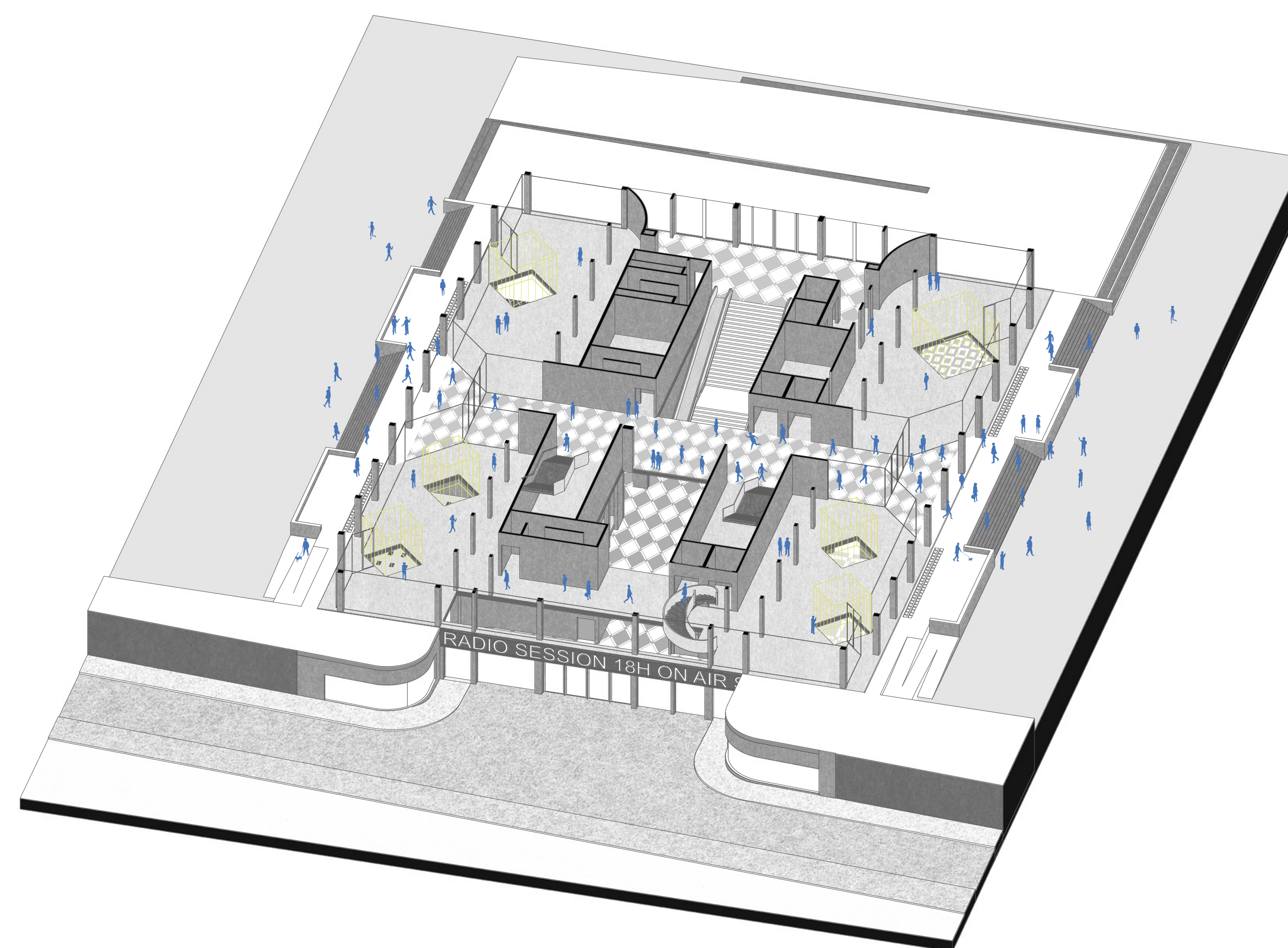
Entrance situation from the Rheinpromenade



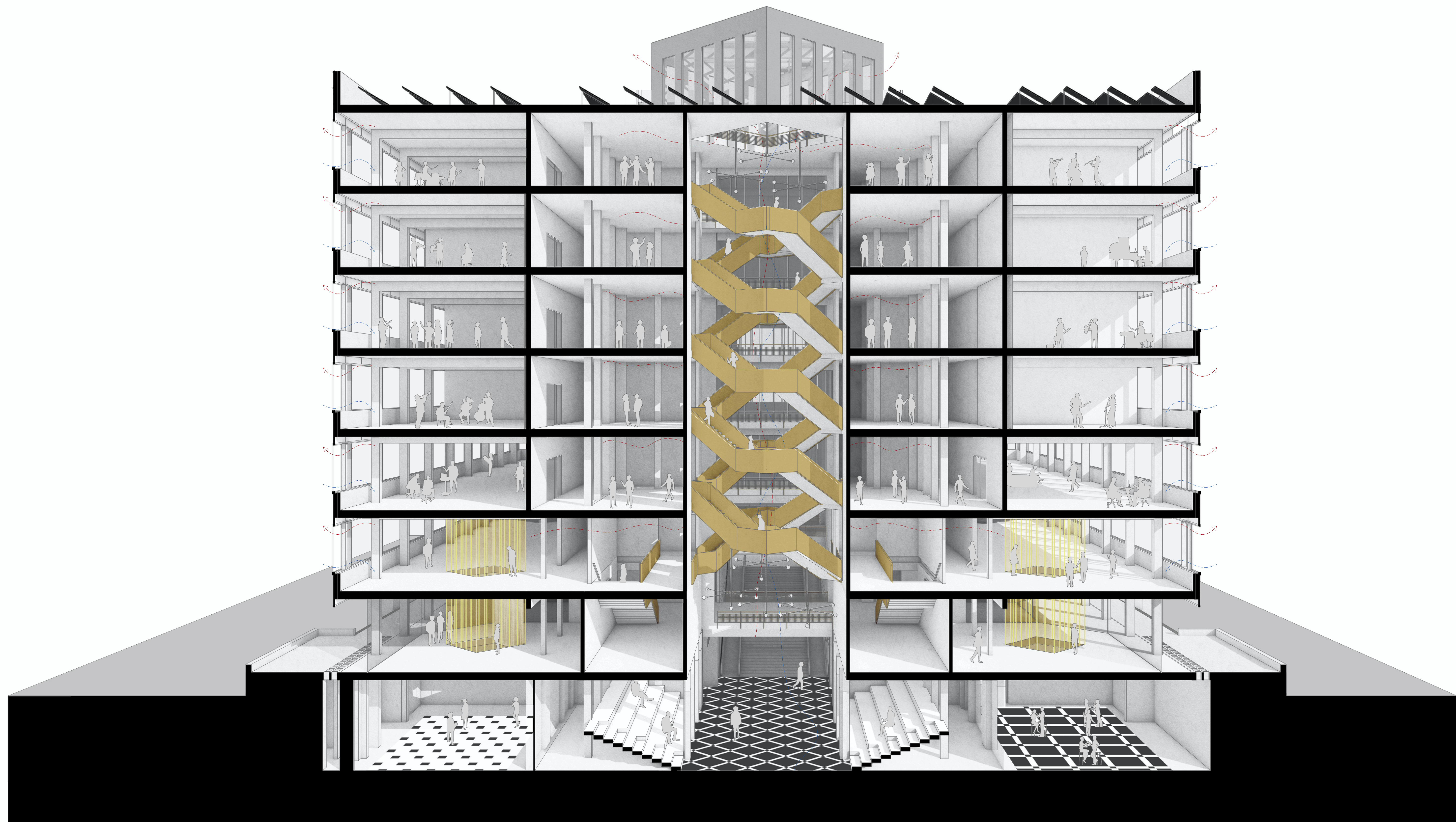
Foyer



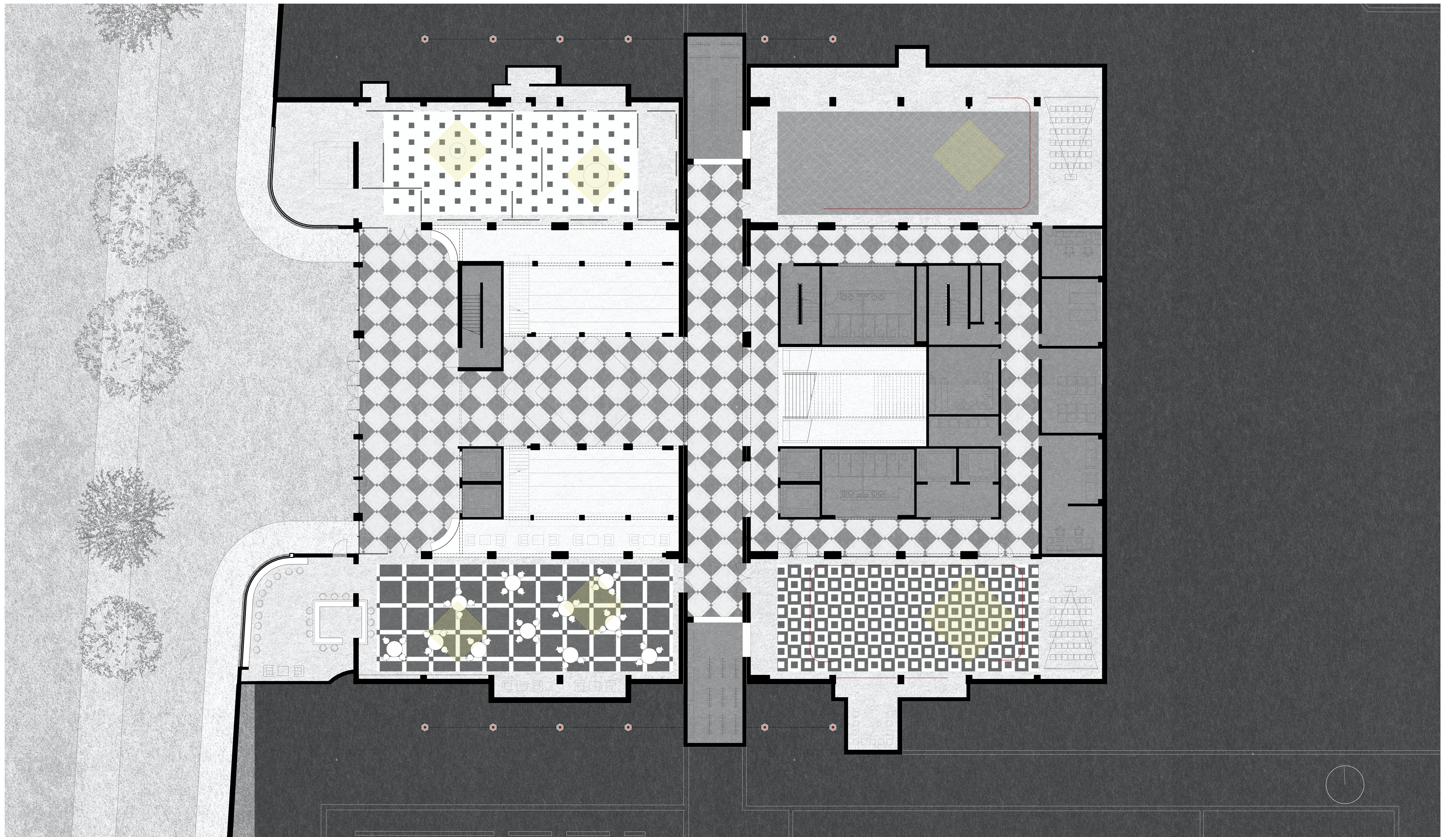
Main hall and forum



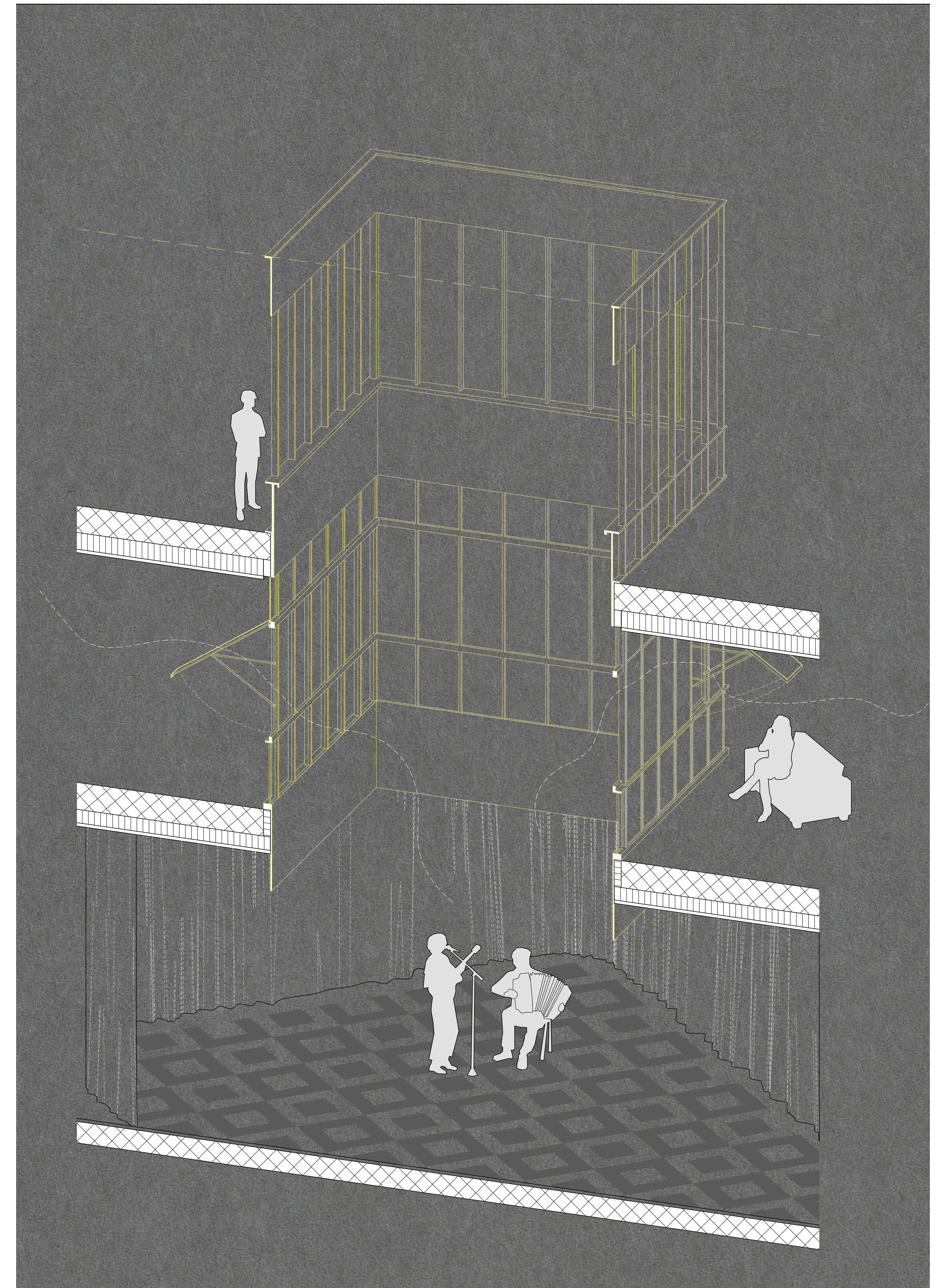
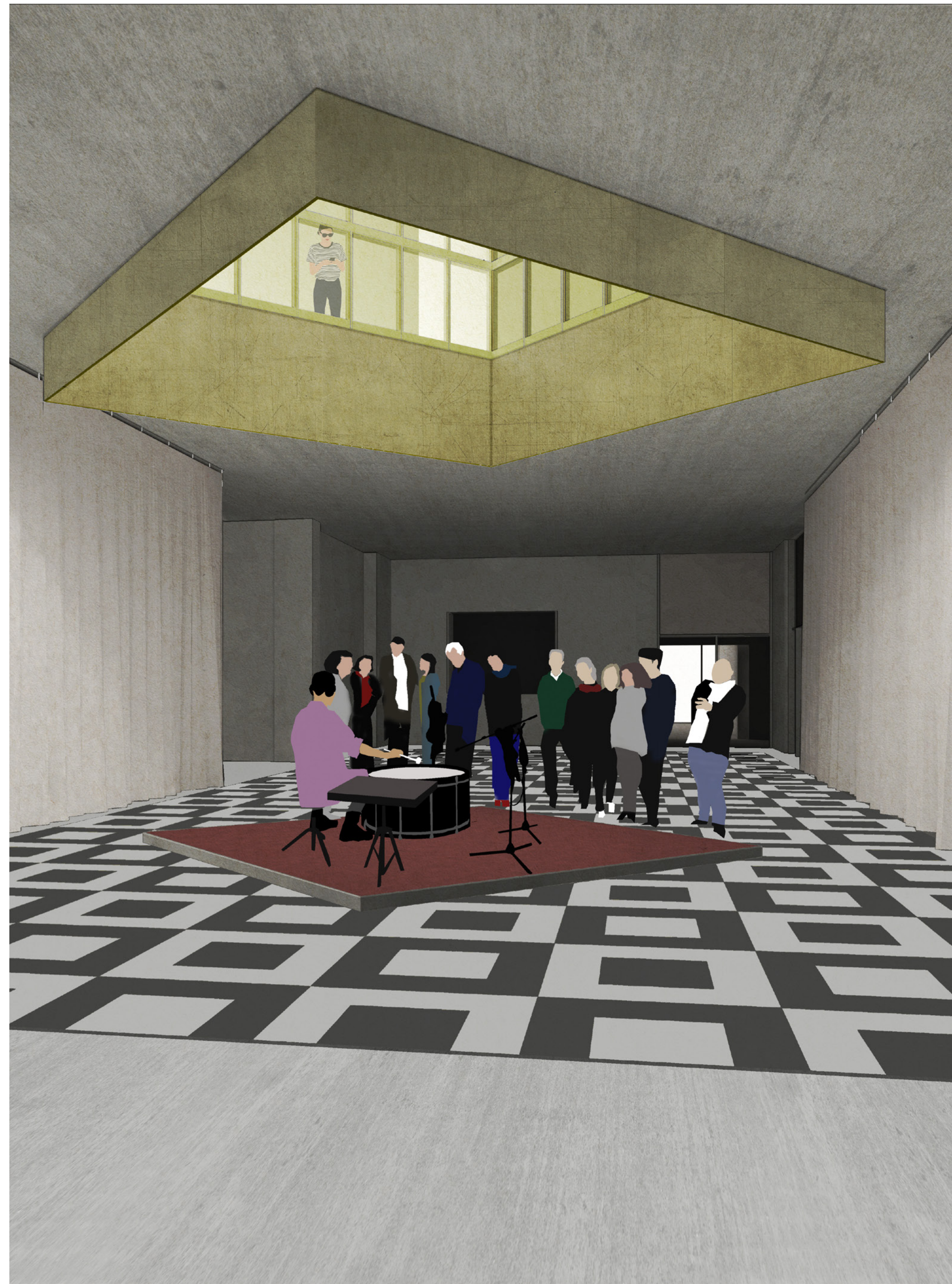
Main hall and forum



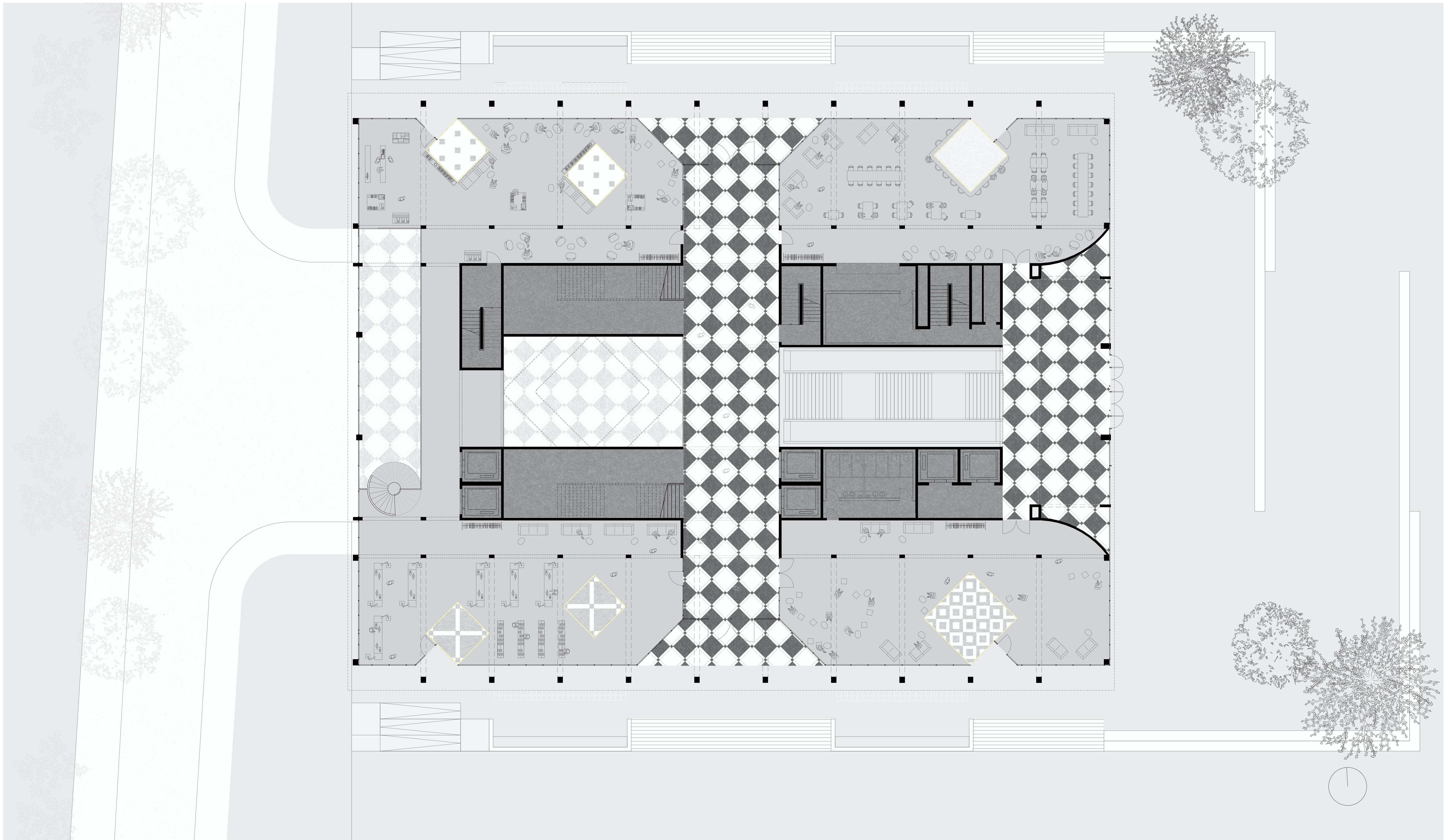
Section through the forum



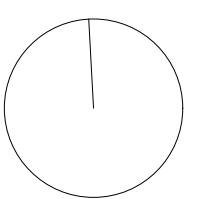
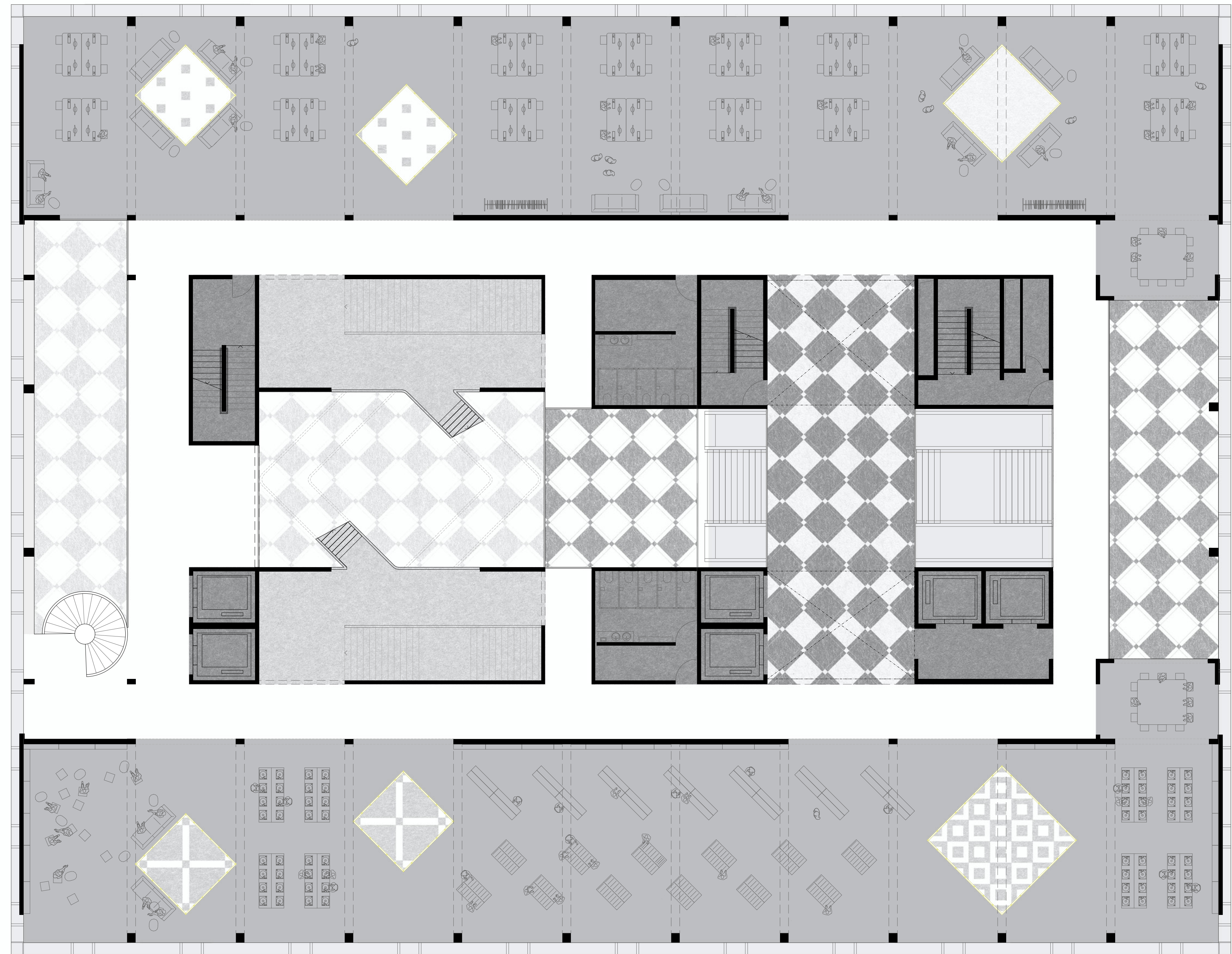
Floorplan: Passage + market ball



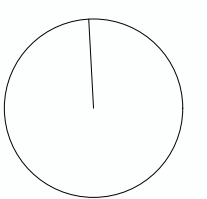
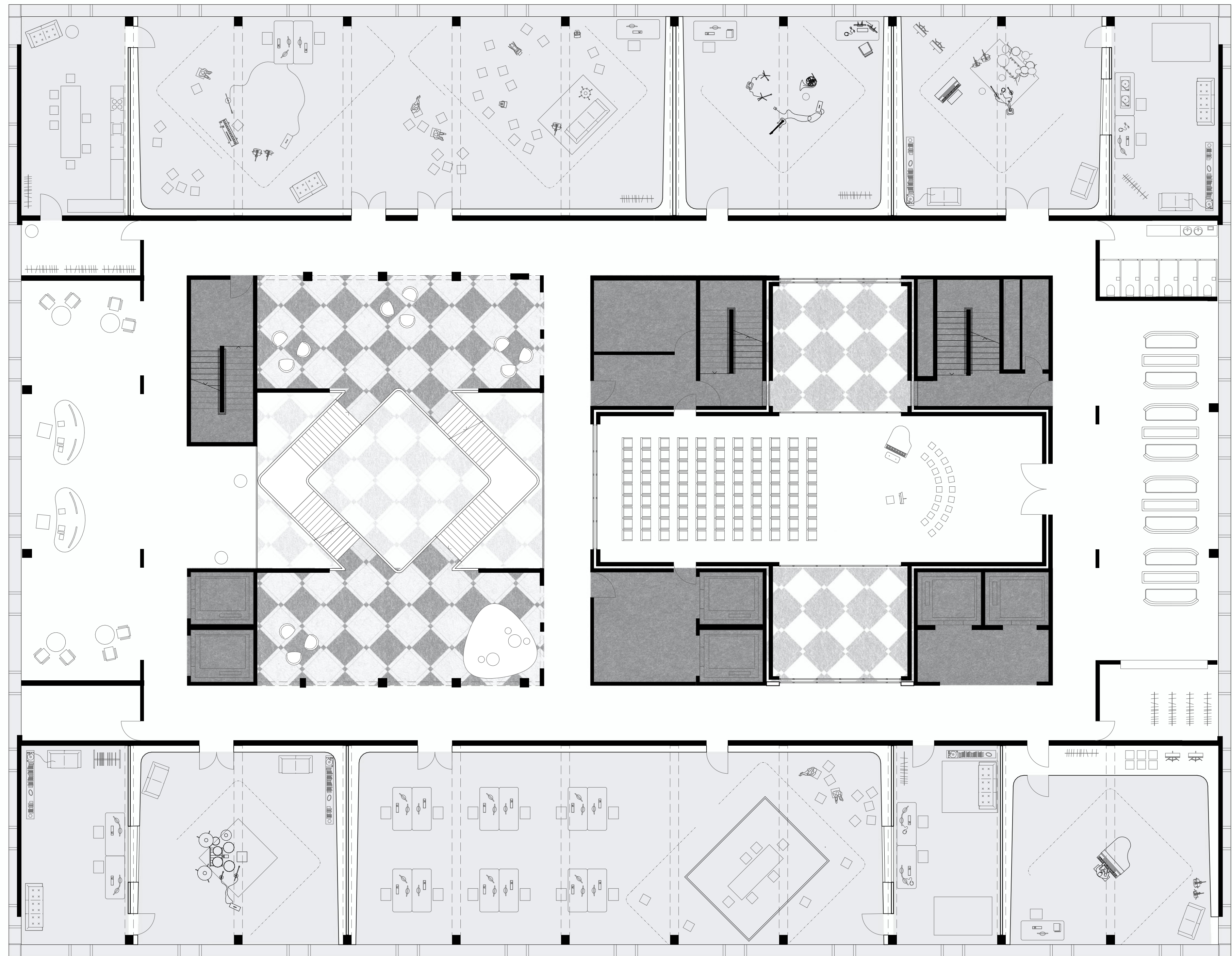
Lantern



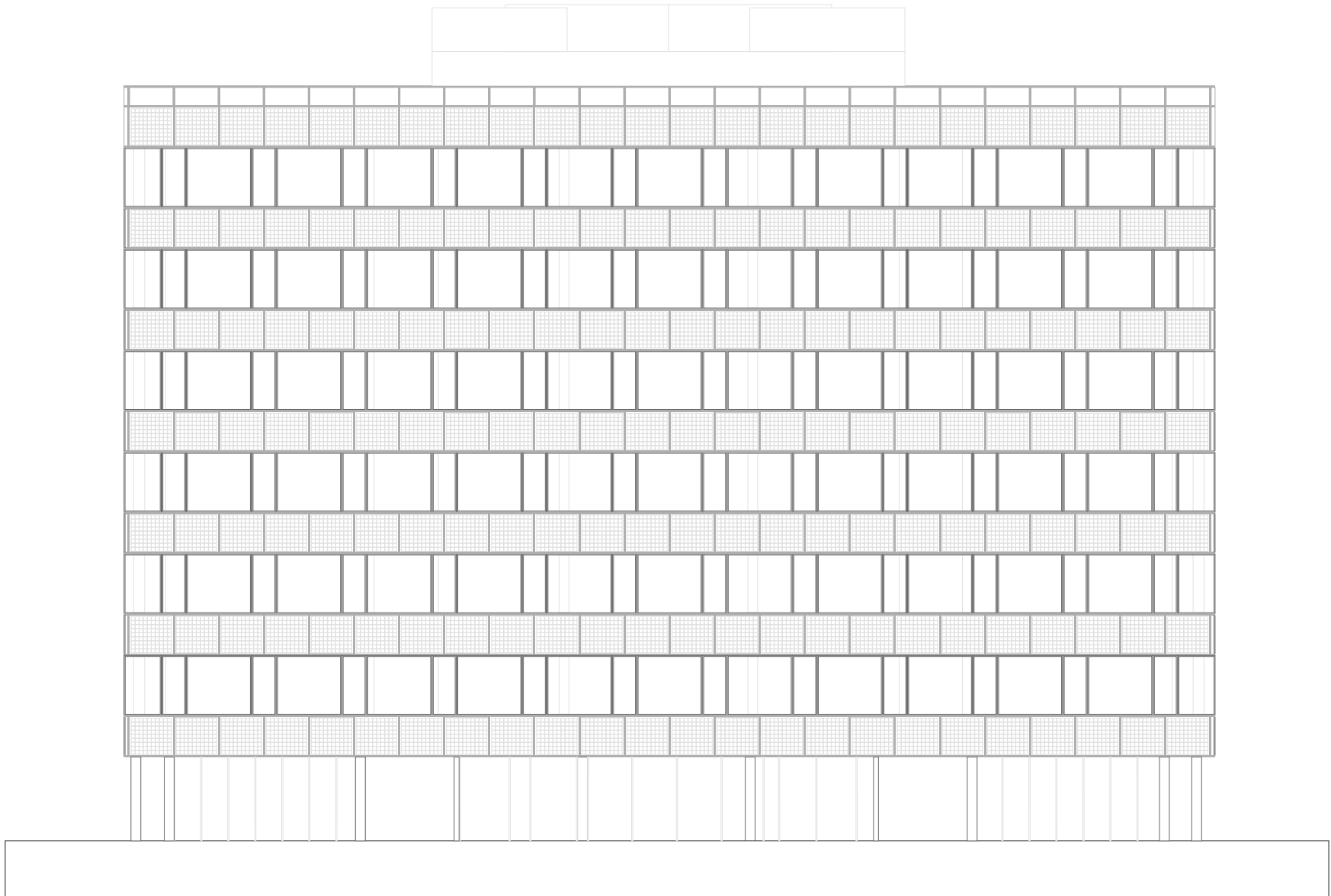
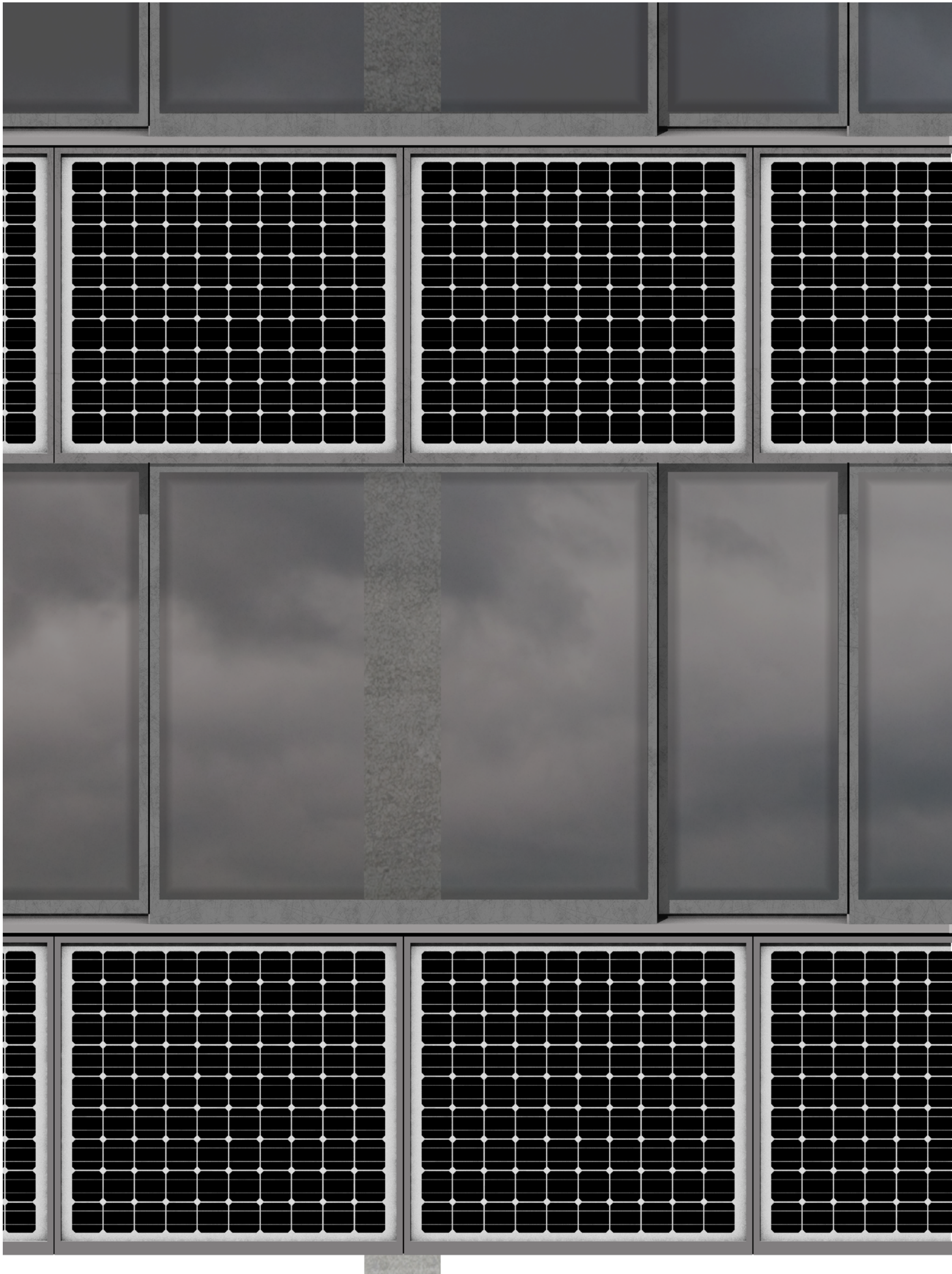
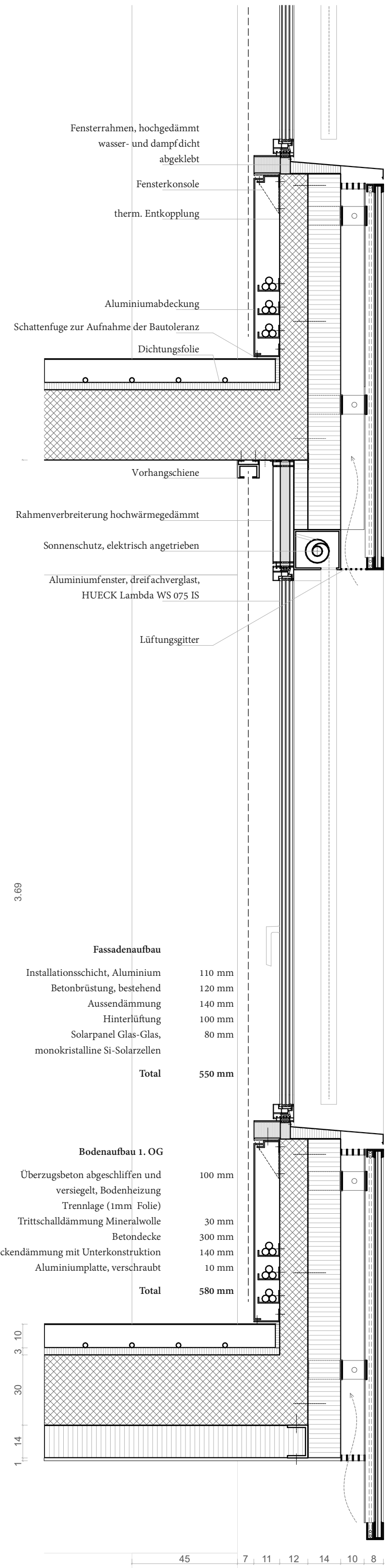
Floorplan: Mediatheque



Floorplan: Music and digital sector



Floorplan: Production floor



Energy demand	Office	Mediatheque	Music rooms	Forum	Circulation	Total
Percentage	0.25	0.25	0.2	0.1	0.2	1
Heating/Cooling	2.5	6.9	2.74	3.25	0.68	16.07 kWh/m2
Hot water	0.9	1.325	1.46	0.73	0	4.415 kWh/m2
Devices	3.375	1.775	0.92	1.16	0	7.23 kWh/m2
Lighting	4.8	4.15	6.48	2.99	4.18	22.6 kWh/m2
Ventilation	0.95	1.1	2.4	1.7	0.68	6.83 kWh/m2
						40.757 kWh/m2
						898'100 kWh

Solar production	Orientation	Angle	Global Solar	Surface	Efficiency	Performance	Production
Facade	North	90	1200	700	0.18	0.75	40'824 kWh
	East	90	1200	550	0.18	0.75	56'133 kWh
	South	90	1200	700	0.18	0.6	71'669 kWh
	West	90	1200	550	0.18	0.75	56'133 kWh
Roof	South	30	1200	2300	0.20	0.8	503'424 kWh
						728'183 kWh	

Energy flow: Ventilated solar facade



Section through passage