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Riuso del patrimonio oversize. Un progetto adattivo per la Cittadella di Alessandria // Oversized heritage reuse. An adaptive project for the Citadel of Alessandria

Original

Riuso del patrimonio oversize. Un progetto adattivo per la Cittadella di Alessandria // Oversized heritage reuse. An adaptive project for the Citadel of Alessandria / Vigliocco, Elena. - STAMPA. - (2021), pp. 1-201.

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26 edifici // 26 buildings

La Cittadella di Alessandria è una possente e bassa costruzione a pianta stellare, leggermente ovoidale, affiorante rispetto alla pianura che si estende sulla sponda sinistra del Tanaro. L'impianto della fortificazione è a esagono schiacciato lungo l'asse del fiume - per rispondere meglio agli attacchi previsti da Levante o Ponente - e occupa una superficie di circa venti ettari; pur con alcune modificazioni di età napoleonica conserva intatta l'impostazione geometrica del progetto originale. Come ben descritto dai lavori di ricerca che hanno preceduto il presente lavoro, la Cittadella venne edificata per intero a partire dal 1728: i bastioni, tutti casamattati, con volte a prova di bomba e ricoperti di terra, sono uniti da sei cortine. Tutte le opere sono circondate da profondi fossati che misurano tra i cinquanta e i centoventi metri di larghezza: i fossati potevano essere allagati impiegando l'acqua del Tanaro derivato per mezzo di un canale sotterraneo. Quattro gallerie collegano il cuore della Cittadella con i fossati. Nell'interno della Cittadella si collocano gli edifici, disegnati inizialmente da Giovanni Battista Borra e successivamente modificati e integrati da nuovi fabbricati anche di epoche recenti, che giacciono sul sedime dell'originale tracciato del Bergoglio. Il complesso si articola intorno a un grande piazzale di forma rettangolare alberato sul perimetro. L'ingresso alla Cittadella avviene per mezzo di due porte: Porta Reale e Porta del Soccorso. Complessivamente la Cittadella è oggi costituita da 24 fabbricati per un totale di circa 120 mila mq di superficie e da due ponti di accesso per un totale di 26 costruzioni. Al fine di semplificare l'identificazione dei singoli fabbricati si è scelto di utilizzare l'identificativo catastale per numerare progressivamente le costruzioni.

Di ciascun edificio si propone una sintesi conoscitiva affiancata dall'individuazione delle tipologie di intervento da eseguirsi nonché dell'inserimento dei dispositivi indispensabili per la riattivazione dei fabbricati /

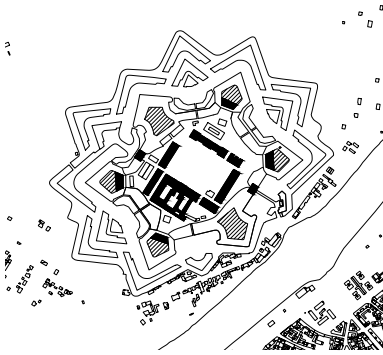
/ The Cittadella of Alessandria is a mighty, low, star-shaped, slightly ovoid building, rising out of the plain on the left bank of the River Tanaro. The layout of the fortification is in the form of a hexagon flattened along the axis of the river to better respond to attacks from the east or west. It occupies a surface area of approximately 20 hectares. Despite some alterations during the Napoleonic era, it still preserves the geometric layout of the original design. As has been well described in research preceding this work, the Cittadella was built in its entirety from 1728. The bastions, all with casemates and bomb-proof vaults and covered with earth, are accompanied by six enceintes.

All the works are surrounded by deep moats measuring between 50 and 120 metres wide: the moats could be flooded using water from the River Tanaro through an underground canal. Four tunnels connect the heart of the Cittadella with the moats. Inside the Cittadella are the buildings, initially designed by Giovanni Battista Borra and subsequently modified and supplemented by new buildings, including recent ones, which lie on the site of the original Bergoglio route. The complex is built around a large rectangular parade ground surrounded by trees.

The entrance to the citadel is via two gates: Porta Reale and Porta del Soccorso.

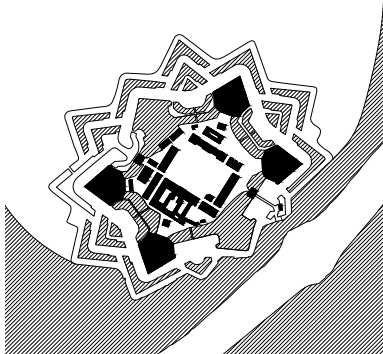
Overall, the Cittadella now consists of 24 buildings with a total area of approximately 120,000 square metres and two access bridges, giving a total of 26 constructions. In order to simplify the identification of individual constructions, it was decided to use the land register identifier to number the buildings consecutively.

A summary of each building is proposed, together with the identification of the types of intervention to be carried out and the insertion of essential devices for the reactivation of the buildings.



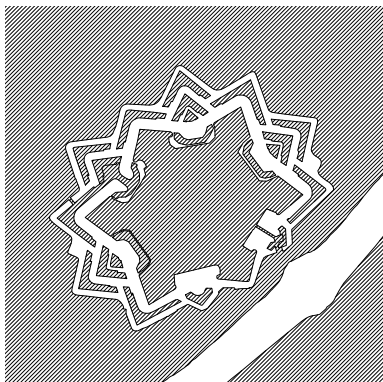
piano di calpestio a livello dei bastioni /
/ ramparts level

+ 97 ÷ 98 m s.l.m. // a.s.l.



piano di calpestio a livello della Cittadella /
/ Cittadella level

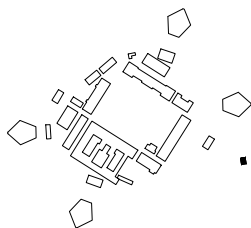
+ 91 ÷ 92 m s.l.m. // a.s.l.



piano di calpestio a livello dei fossati /
/ moat level

+ 88 ÷ 89 m s.l.m. // a.s.l.

30. Corpo di Guardia



piani // levels	1
piano terreno // ground floor	120 mq // sqm
porticato // porch	60 mq // sqm
totale // total	180 mq // sqm



accessi // entrances



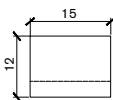
schema // scheme



struttura // structure



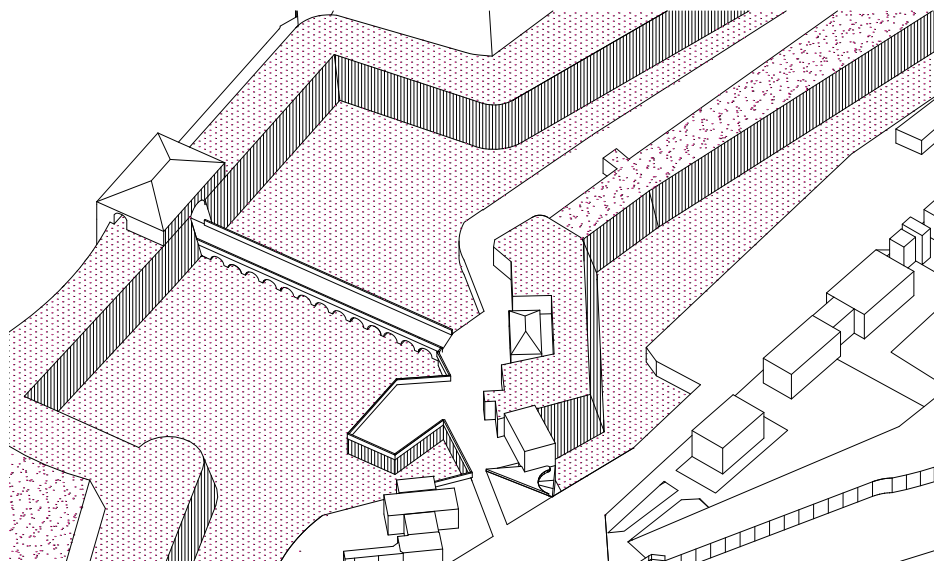
superfici // surfaces



dimensioni // dimensions

Il piccolo fabbricato è l'unico a collocarsi fuori dal perimetro dei bastioni in prossimità di Porta Reale. È anche l'unico dotato di un portico disposto lungo la sua lunghezza e rivolto verso il Ponte Reale /

/ The small building is the only one located outside the perimeter of the bastions near Porta Reale. It is also the only one with a portico arranged along its length and facing the Royal Bridge.



rampa di accesso /
/ access ramp



mancorrente o parapetto /
/ handrail or railing



pedane riscaldate mobili /
/ mobile reheated platform



scale di sicurezza /
/ safety staircase



ascensore /
/ lift



accumulo acqua /
/ water storage



impianti per allestimento /
/ outfitting systems



estintore /
/ extinguisher



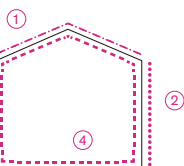
pannello solare /
/ solar panels



rete dati /
/ wi-fi



servizi igienici /
/ restrooms



① rifacimento o manutenzione copertura /
/ roof remaking or maintenance



② manutenzione facciate /
/ facade maintenance



③ manutenzione interna per locali riscaldati /
/ internal maintenance for heated rooms

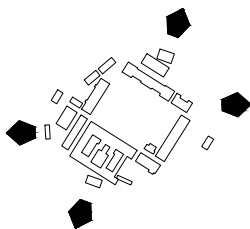


④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms

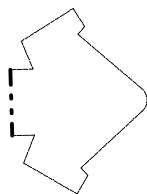


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

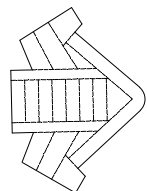
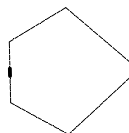
38.39.50.51. bastioni // bastions



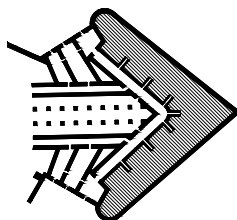
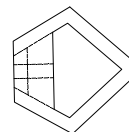
piani // levels	2
piano bastione // rampart level	2.000 mq // sqm
piano cavaliere // knight level	900 mq // sqm
totale // total	2.900 mq // sqm



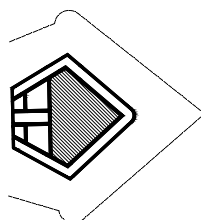
accessi // entrances



schema // scheme

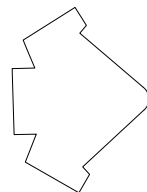


struttura // structure

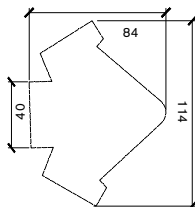
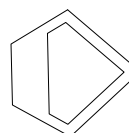


Nel periodo francese, 4 dei 6 bastioni furono rettilienati e casamattati: tra questi il Bastione Sant'Antonio. Ciascuno dei 4 bastioni era destinato per usi differenti: scuderie in tempo d'assedio, magazzino degli effetti del Genio, per i prigionieri, magazzino per le armi. The casemates are organized on two levels: in the basement, a continuous system of galleries surrounds the immense internal vaulted space; on the upper floor, the pentagonal perimeter of the emerging volume is followed by a single annular gallery /

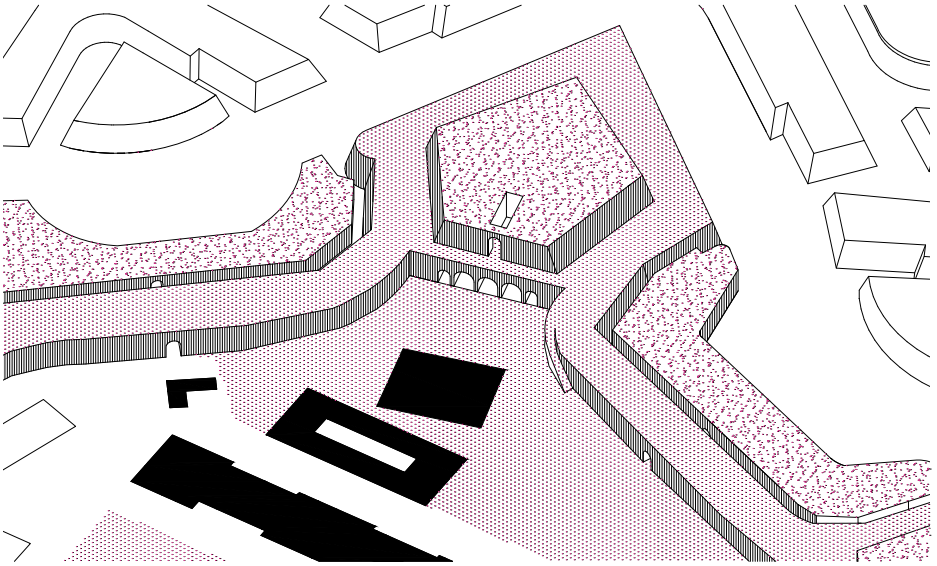
/ In the French period, 4 of the 6 bastions were reptile and casematted: among these the Bastione Sant'Antonio. Each of the 4 bastions was intended for different uses: stables in times of siege, a warehouse for the effects of the Engineers, for prisoners, a warehouse for weapons. The casemates are organized on two levels: in the basement, a continuous system of galleries surrounds the immense internal vaulted space; on the upper floor, the pentagonal perimeter of the emerging volume is followed by a single annular gallery.



superfici // surfaces



dimensioni // dimensions



rampa di accesso /
/ access ramp



mancorrente o parapetto /
/ handrail or railing



pedane riscaldate mobili /
/ mobile reheated platform



accumulo acqua /
/ water storage



impianti per allestimento /
/ outfitting systems



estintore /
/ extinguisher



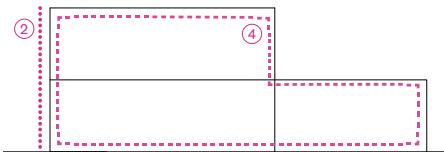
pannello solare /
/ solar panels



rete dati /
/ wi-fi



servizi igienici /
/ restrooms



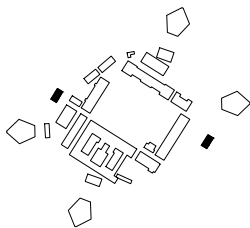
② manutenzione facciate /
/ facade maintenance

④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms

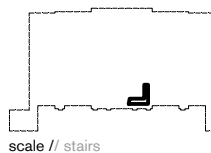


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

53.82. Porta del Soccorso e Porta Reale



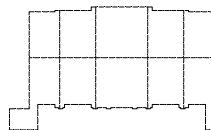
piani // levels	2
piano bastione // rampart level	320 mq // sqm
piano cavaliere // knight level	240 mq // sqm
totale // total	560 mq // sqm



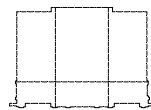
scale // stairs



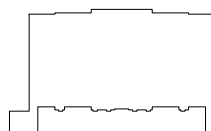
accessi // entrances



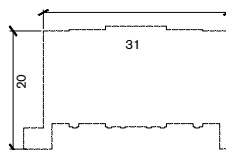
schema // scheme



struttura // structure



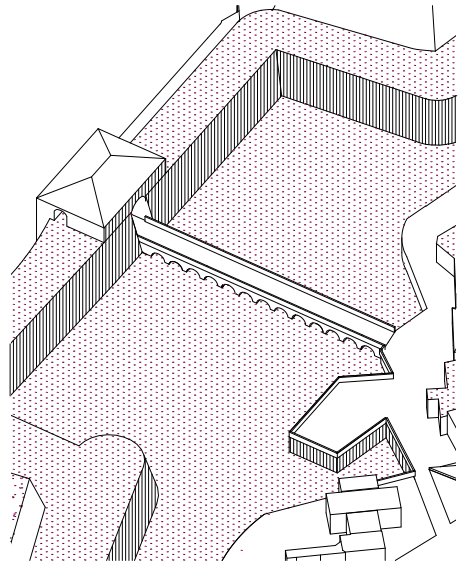
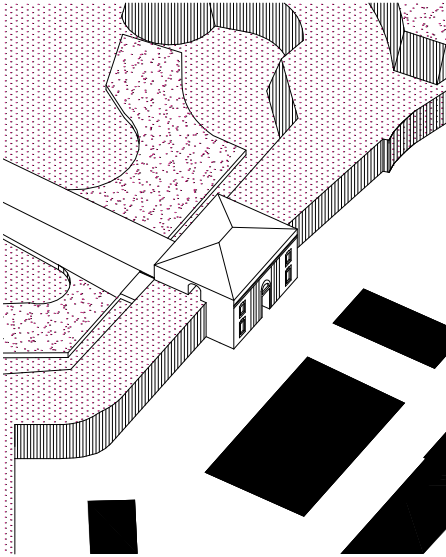
superfici // surfaces



dimensioni // dimensions

Le due porte di accesso alla Cittadella sono edifici integrati completamente con le mura difensive. L'arrivo alle porte è consentito da due ponti. Al piano primo, i due edifici possono essere attraversati longitudinalmente per non interrompere il percorso anulare dei bastioni /

/ The two access gates to the Citadel are buildings fully integrated with the defensive walls. The arrival at the gates is allowed by two bridges. On the first floor, the two buildings can be crossed longitudinally so as to not interrupt the annular path of the bastions.



rampa di accesso /
/ access ramp



mancorrente o parapetto /
/ handrail or railing



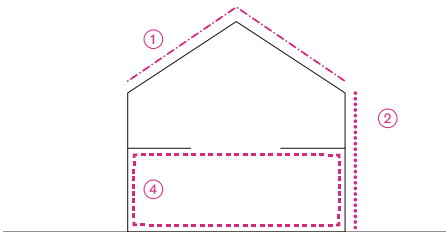
accumulo acqua /
/ water storage



estintore /
/ extinguisher



pannello solare /
/ solar panels

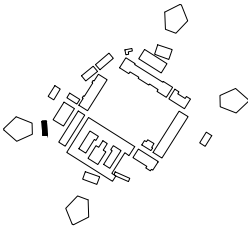


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms



indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

54. Officina San Tommaso



piani // levels	1
piano bastione // rampart level	370 mq // sqm
totale // total	370 mq // sqm



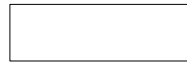
accessi // entrances



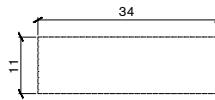
schema // scheme



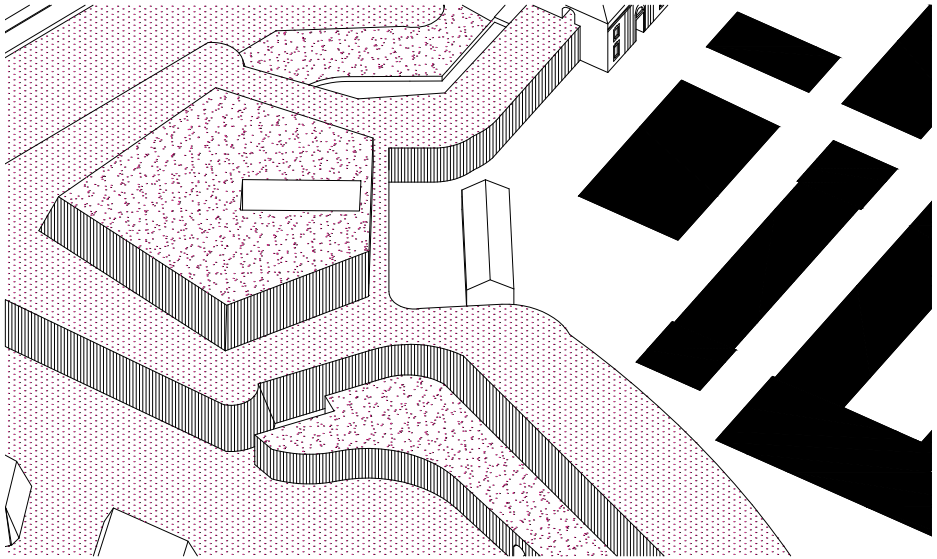
struttura // structure



superfici // surfaces



dimensioni // dimensions



rampa di accesso /
/ access ramp



pannello solare /
/ solar panels



pedane riscaldate mobili /
/ mobile reheated platform



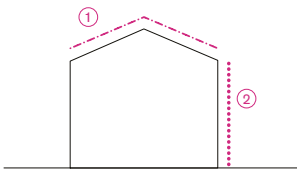
rete dati /
/ wi-fi



impianti per allestimento /
/ outfitting systems



estintore /
/ extinguisher

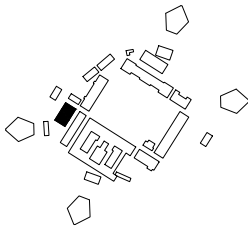


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms

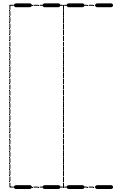


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

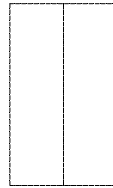
55. Fabbricato 2



piani // levels	1
piano terra // ground floor	1.570 mq // sqm
totale // total	1.570 mq // sqm



accessi // entrances



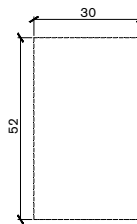
schema // scheme



struttura // structure



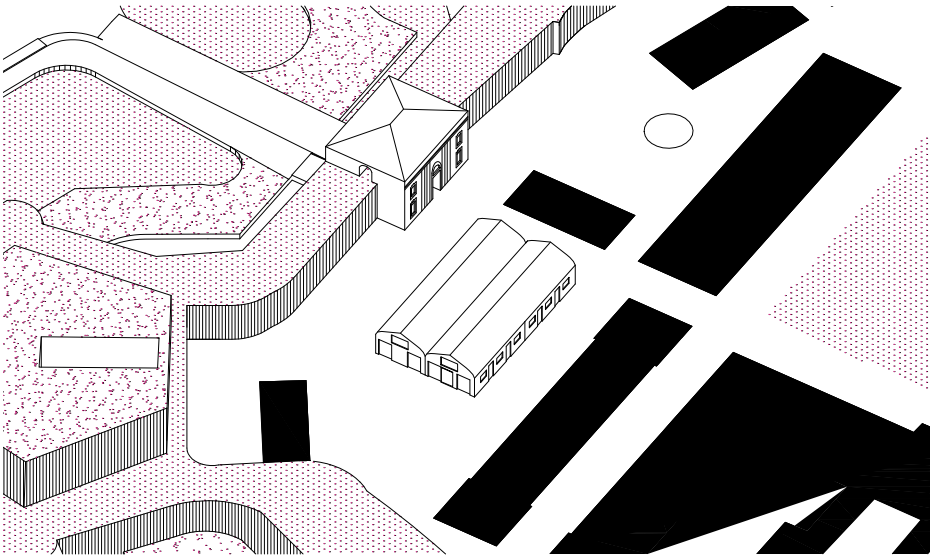
superfici // surfaces



dimensioni // dimensions

Fabbricato incoerente degli anni '50 del Novecento. Le superfici murarie sono intonacate mentre il manto di copertura è in tegole marsigliesi /

/ Incoherent building from the 1950s. The wall surfaces are plastered while the roofing is in Marseille tiles.



rampa di accesso /
/ access ramp



pannello solare /
/ solar panels



pedane riscaldate mobili /
/ mobile reheated platform



rete dati /
/ wi-fi



impianti per allestimento /
/ outfitting systems



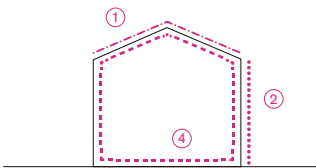
estintore /
/ extinguisher



accumulo acqua /
/ water storage



servizi igienici /
/ restrooms

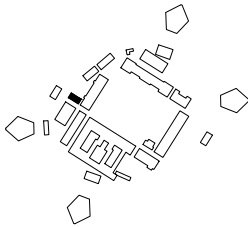


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms



indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

56. Piccolo Arsenale



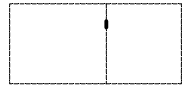
piani // levels	2
piano terra // ground floor	410 mq // sqm
primo piano // first floor	410 mq // sqm
totale // total	820 mq // sqm



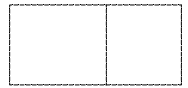
scale // stairs



accessi // entrances



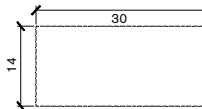
schema // scheme



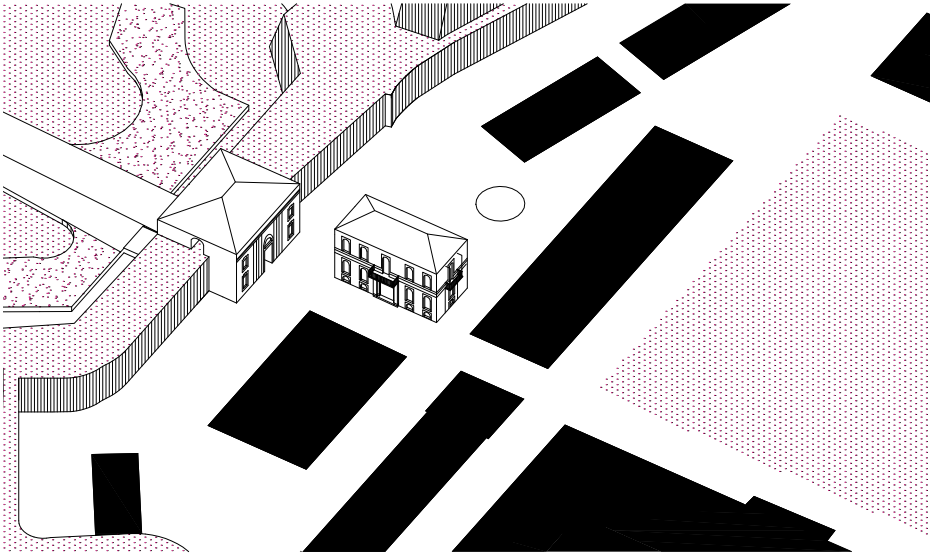
struttura // structure



superfici // surfaces



dimensioni // dimensions



rampa di accesso /
/ access ramp



pannello solare /
/ solar panels



pedane riscaldate mobili /
/ mobile reheated platform



rete dati /
/ wi-fi



impianti per allestimento /
/ outfitting systems



estintore /
/ extinguisher



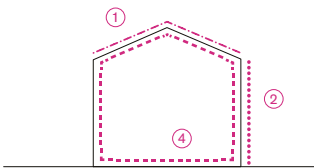
accumulo acqua /
/ water storage



servizi igienici /
/ restrooms



mancorrente o parapetto /
/ handrail or railing

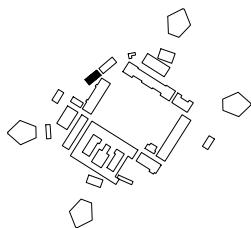


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms
- ⑤ consolidamento /
/ consolidation



indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

59. 60. Fabbricati 3 e 4



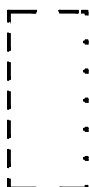
piani // levels	1
piano terra // ground floor	640 mq // sqm
totale // total	640 mq // sqm



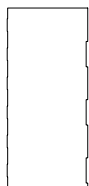
accessi // entrances



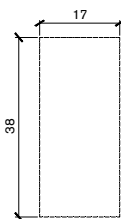
schema // scheme



struttura // structure



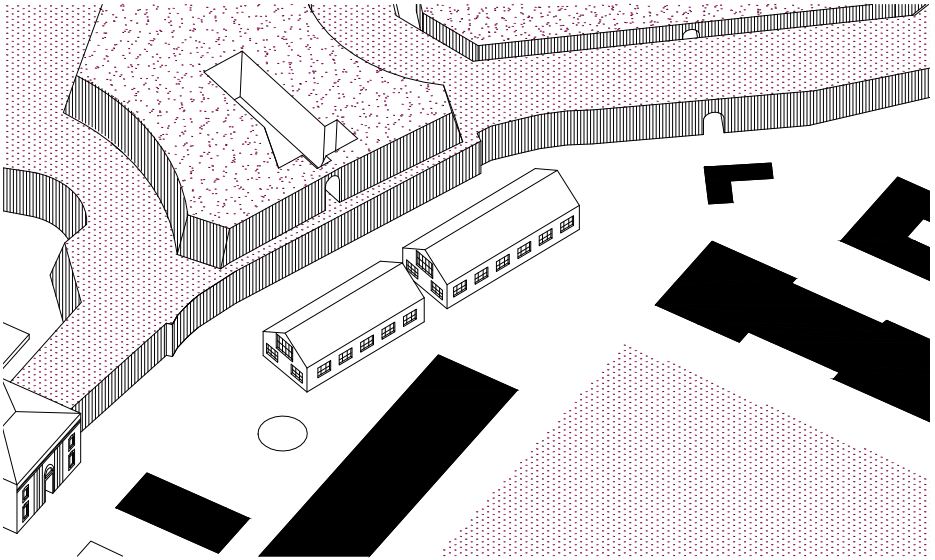
superfici // surfaces



dimensioni // dimensions

Fabbricati incoerenti degli anni '50 del Novecento. Le superfici murarie sono intonacate mentre il manto di copertura è in tegole marsigliesi /

/ Incoherent buildings from the 1950s. The wall surfaces are plastered while the roofing is in Marseillaise tiles.



rampa di accesso /
/ access ramp



pannello solare /
/ solar panels



pedane riscaldate mobili /
/ mobile reheated platform



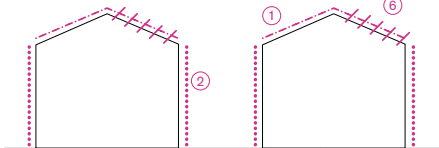
rete dati /
/ wi-fi



impianti per allestimento /
/ outfitting systems



estintore /
/ extinguisher

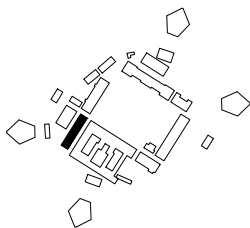


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ⑥ demolizione elementi pericolanti /
/ demolition of unsafe elements

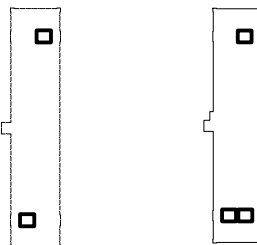


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

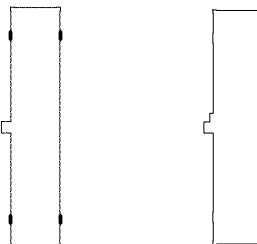
61. Quartiere San Tommaso



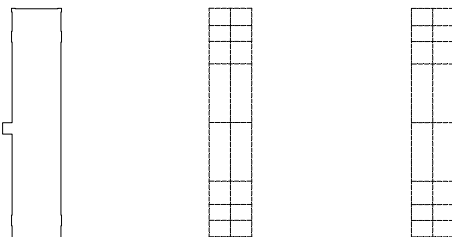
piani // levels	1
piano terra // ground floor	1.730 mq // sqm
primo piano // first floor	1.730 mq // sqm
totale // total	3.460 mq // sqm



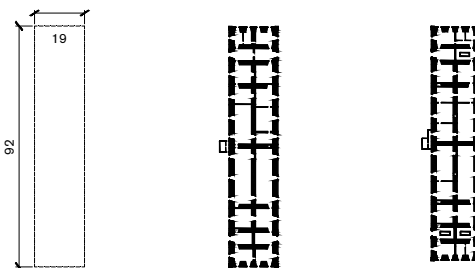
scale // stairs



accessi // entrances



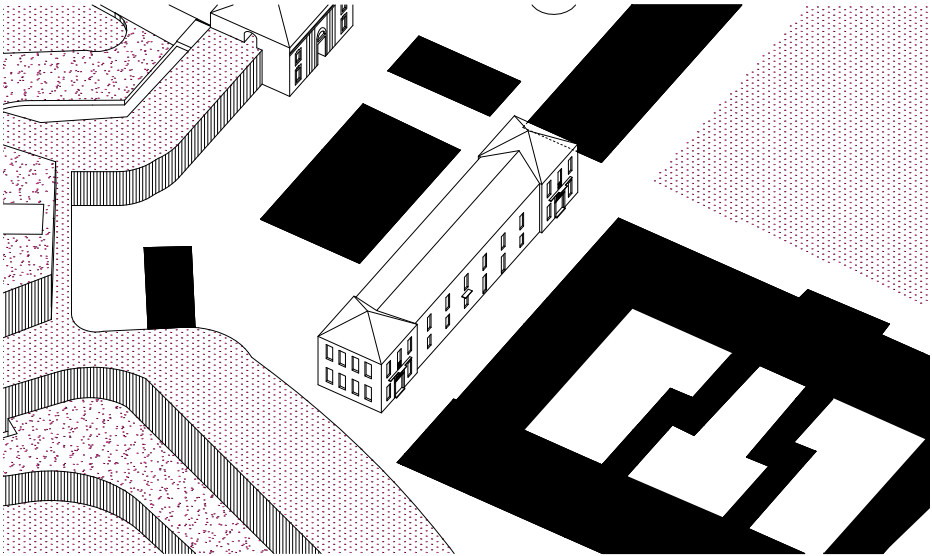
superfici - schema // surfaces - scheme



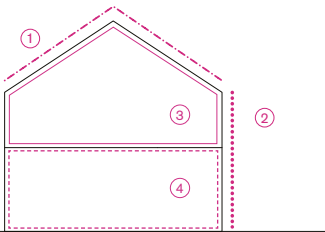
dimensioni - struttura // dimensions - structure

Il San Tommaso è il primo degli edifici a prova di bomba a essere costruito: la prima parte dei lavori ha inizio nel 1749; la conclusione è del 1756. Serviva per l'alloggiamento delle truppe. L'edificio si colloca sul sito già parzialmente occupato dal convento dell'Annunziata - demolito - ed è caratterizzato da una forma parallelepipeda compatta e allungata, a manica doppia con muro di spina centrale /

/ The San Tommaso is the first of the bomb-proof buildings to be built: the first part of the works began in 1749; the conclusion is in 1756. It was used to house the troops. The building is located on the site already partially occupied by the convent of Annunziata - demolished - and is characterized by a compact parallelepiped shape with a central spine wall.



- rampa di accesso /**
/ access ramp
- pannello solare /**
/ solar panels
- pedane riscaldate mobili /**
/ mobile reheated platform
- rete dati /**
/ wi-fi
- impianti per allestimento /**
/ outfitting systems
- estintore /**
/ extinguisher
- accumulo acqua /**
/ water storage
- servizi igienici /**
/ restrooms
- mancorrente o parapetto /**
/ handrail or railing
- scala di sicurezza /**
/ safety staircase
- ascensore /**
/ lift

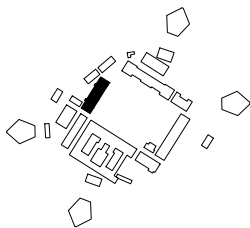


- ① **rifacimento o manutenzione copertura /**
/ roof remaking or maintenance
- ② **manutenzione facciate /**
/ facade maintenance
- ③ **manutenzione interna per locali riscaldati /**
/ internal maintenance for heated rooms
- ④ **manutenzione interna per locali non riscaldati /**
/ internal maintenance for not heated rooms



indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

62. Quartiere San Carlo



scale // stairs

piani // levels

4

piano interrato // basement

2.400 mq // sqm

piano terra // ground floor

2.400 mq // sqm

primo piano // first floor

2.400 mq // sqm

secondo piano // second floor

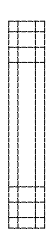
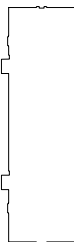
1.230 mq // sqm

totale // total

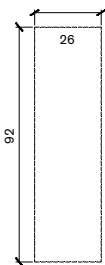
8.430 mq // sqm



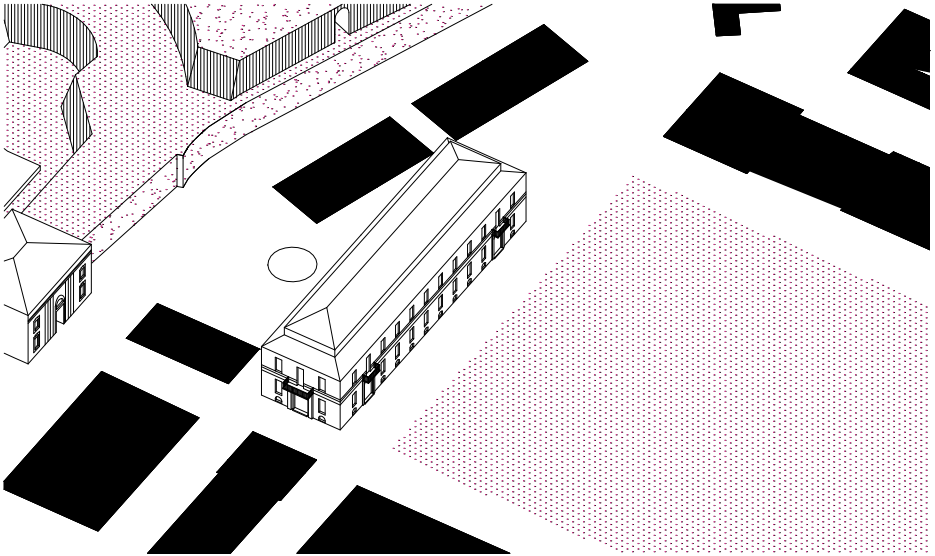
accessi // entrances



superfici - schema // surfaces - scheme



dimensioni - struttura // dimensions - structure



rampa di accesso /
/ access ramp

pannello solare /
/ solar panels

pedane riscaldate mobili /
/ mobile reheated platform

rete dati /
/ wi-fi

impianti per allestimento /
/ outfitting systems

estintore /
/ extinguisher

traverse per consolidamenti /
/ barriers for consolidations

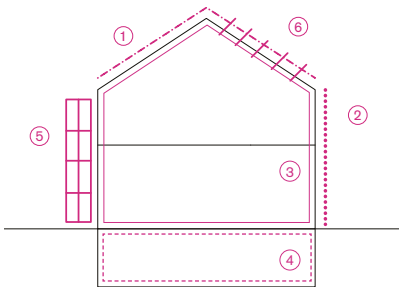
accumulo acqua /
/ water storage

servizi igienici /
/ restrooms

mancorrente o parapetto /
/ handrail or railing

scala di sicurezza /
/ safety staircase

ascensore /
/ lift



① rifacimento o manutenzione copertura /
/ roof remaking or maintenance

② manutenzione facciate /
/ facade maintenance

③ manutenzione interna per locali riscaldati /
/ internal maintenance for heated rooms

④ manutenzione interna per locali non riscaldati /
/ internal maintenance for not heated rooms

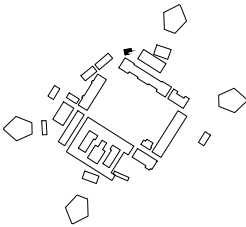
⑤ consolidamento /
/ consolidation

⑥ demolizione elementi pericolanti /
/ demolition of unsafe elements

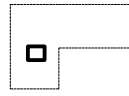


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

63. Stazione Radio



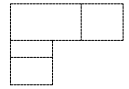
piani // levels	1
piano terra // ground floor	160 mq // sqm
primo piano // first floor	150 mq // sqm
totale // total	310 mq // sqm



scale // stairs



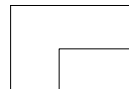
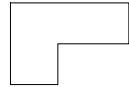
accessi // entrances



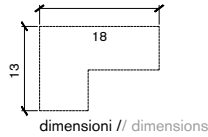
schema // scheme



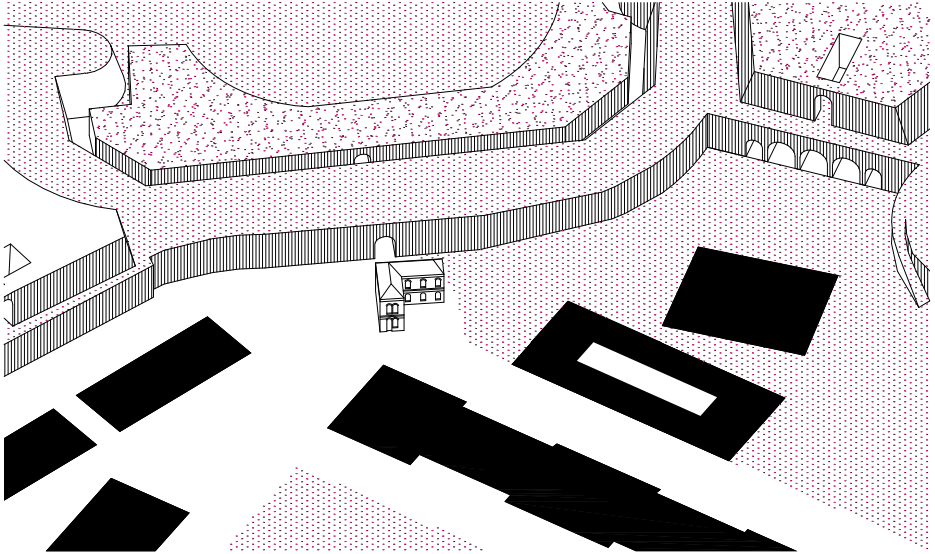
struttura // structure



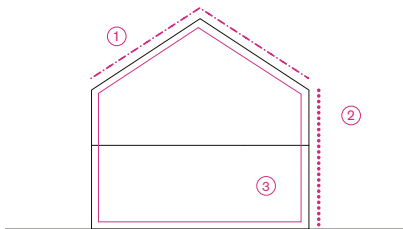
superfici // surfaces



dimensioni // dimensions



- rampa di accesso /**
/ access ramp
- pannello solare /**
/ solar panels
- pedane riscaldate mobili /**
/ mobile reheated platform
- rete dati /**
/ wi-fi
- impianti per allestimento /**
/ outfitting systems
- estintore /**
/ extinguisher
- accumulo acqua /**
/ water storage
- servizi igienici /**
/ restrooms
- mancorrente o parapetto /**
/ handrail or railing
- scala di sicurezza /**
/ safety staircase
- ascensore /**
/ lift

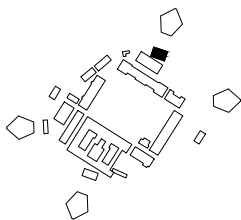


- ① rifacimento o manutenzione copertura /
/ roof remaking or maintenance
- ② manutenzione facciate /
/ facade maintenance
- ③ manutenzione interna per locali riscaldati /
/ internal maintenance for heated rooms

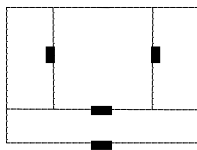


indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices

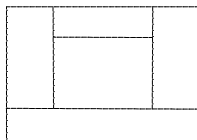
64. Polveriera Santa Barbara



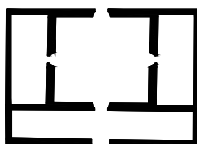
piani // levels	1
piano terra - coperto // ground floor	410 mq // sqm
piano terra - cortili // courtyards	585 mq // sqm
totale // total	995 mq // sqm



accessi // entrances



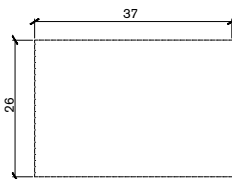
schema // scheme



struttura // structure



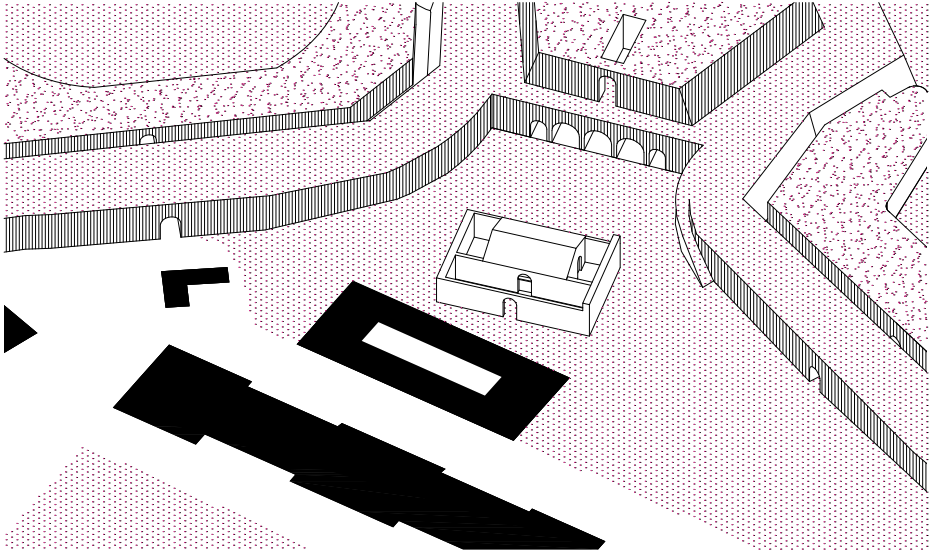
superfici // surfaces



dimensioni // dimensions

Le polveriere sono due. Si tratta di piccoli edifici caratterizzati dalla presenza di un muro perimetrale compatto, accessibile solo per mezzo di una sola apertura. In questo caso, sono presenti tre cortili tra loro indipendenti. Questa polveriera presenta un degrado avanzato ed è inaccessibile /

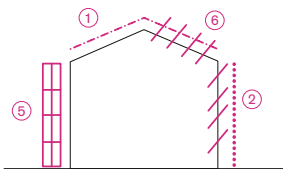
/ There are two storage buildings for explosives. They are small buildings characterized by the presence of a compact perimeter wall, accessible only through a single door. In this case, there are three independent courtyards. This one shows an advanced degradation and is inaccessible.



rampa di accesso /
/ access ramp



traverse per consolidamenti /
/ barriers for consolidations



① rifacimento o manutenzione copertura /
/ roof remaking or maintenance

② manutenzione facciate /
/ facade maintenance

⑤ consolidamento /
/ consolidation

⑥ demolizione elementi pericolanti /
/ demolition of unsafe elements



indicazione dei principali interventi e dei dispositivi utilizzati // indication of the main interventions and devices