



SLOW FOOD VILLAGE

BACKGROUND ANALYSIS

CAVALLERIA RUSTICANA TEAM

SICILY



TRAPANI

BRUCA'S LAND



INDIVIDUATION OF TRADITIONAL PATH: LE TRAZZERIE

La Via dei Borghi



Workability into the

Old Strada's territory



Route

Workability out of

Old Strada's territory



Topology

La Via dei Borghi



GENERAL PLAN - SCALE 1:2000



plantation of grasses



empty buildings



path



driveaway



PRODUCTION FARMS

Hectares

25%

15%

15%

4%

4%

0.5%

SUBITO PIAZZOLO

Hectares

25%

25%

25%

25%

25%

25%

TOT SAU AGRO PRIND 18.834 hectares

TOT SAU PROVINCE TRAPANI 130.892 hectares

INFORMED POINT OF VIEW

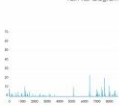


CLIMATE DATA

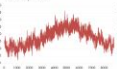
wind speed direction



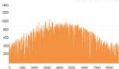
rain fall diagram



air temperature



solar radiation



SHADOWS-ANALYSIS

summer

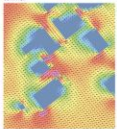


winter

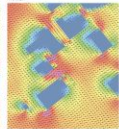


WIND SPEED AND RELATIVE HUMIDITY

summer



winter



SAPIENZA
UNIVERSITA DI ROMA



INTERNATIONAL RESEARCH - From 13 September 2014 - Piazza Sapienza 4
Architectural, energetic and environmental rural villages
Sustainable Rural Design Research Center (SUDARC) - First Year
Sustainable Rural Design Research Center (SUDARC) - First Year

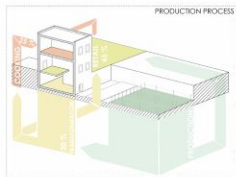
Validation and management of the historic centre of
Brucola - CAVALLERIA RUSTICANA -
Sustainable Rural Design Research Center (SUDARC) - First Year
Sustainable Rural Design Research Center (SUDARC) - First Year



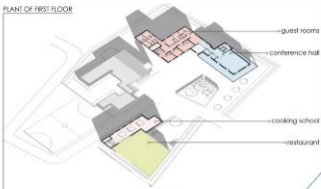


The aim of this project is focused on the possibility to **add value** the original importance of this territory by using its potentialities and its opportunities. The idea is to **bring people** to a **new life-style** in direct contact with a natural context and integrated with the traditional methods of working **land's products**. Thus, re-activating the old **productive cycle** from production to retail.

PRODUCTION HECTARES	1,426 ha
TRANSFORMATION	250 mq 15 %
EXHIBITION	500 mq 20 %
RETAIL	750 mq 40 %
GUEST-ROOMS	550 mq 25 %



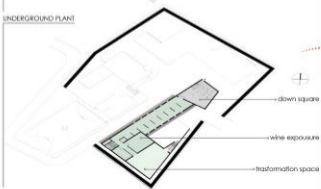
PLANT OF FIRST FLOOR



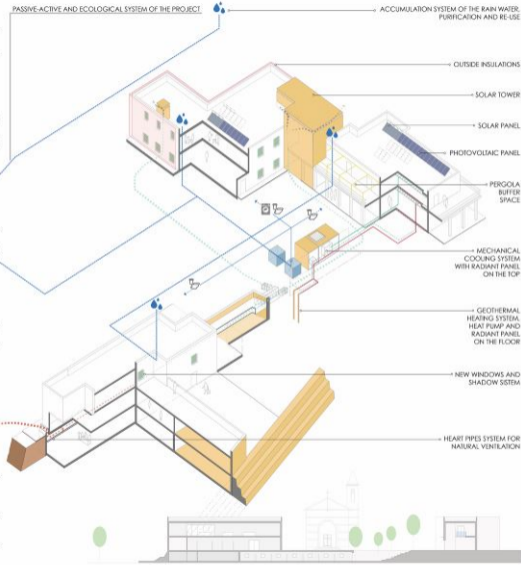
GROUND FLOOR PLAN

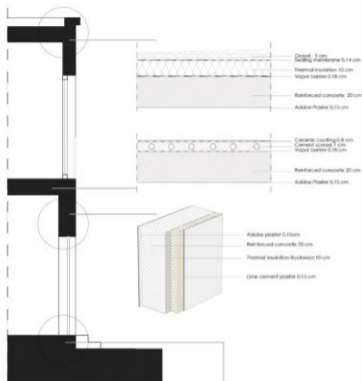


UNDERGROUND PLAN



PASSIVE-ACTIVE AND ECOLOGICAL SYSTEM OF THE PROJECT





	Wall	Roof - Conduction Coefficient
Type	Massive concrete Steel Cladding	Massive concrete Steel Cladding
Thickness	0.20 m x 0.20 m	0.20 m x 0.20 m
Number	10	10
Efficiency	90%	90%
Insulation	30"	30"

Type	Water/Water Pump	Water/Water Pump
CO ₂ Emission	6.1	6.1
CO ₂ per Area	0.0	0.0

Type	Exhausted/Non-Exhausted	Exhausted/Non-Exhausted
Number of collection	18	8
Surface (m ²)	41.75	19.50

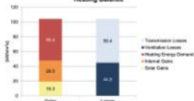
General Production Water + Steam - Conduction Coefficient

Water Consumption	140 GWh/year
Capacity (GWh)	177 GWh/year
Number of plants	22 plants
Annual production	1,474,260.0 GWh

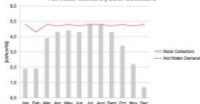
Water Collection Water + Steam - Conduction Coefficient

Annual Production	452 GWh
Water Input	460 GWh
Surface Water Input	0.0
Efficiency Factor	0.0
Resource Collection	371,763.0 GWh
Quantity + Volume	1,855,763.0 GWh

Heating Balance



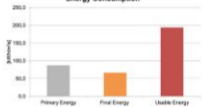
Hot Water Demand | Solar Collectors



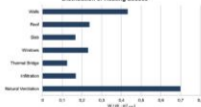
	Without insulation and replacement of the windows	Without insulation and replacement of the windows
Energy External Walls (kWh/m²)	2.08	0.00
Window Wall (kWh/m²)	0.00	0.00
Roof (kWh/m²)	0.00	0.00
Roof (kWh/m²)	0.00	0.00
Roof (kWh/m²)	0.00	0.00
Roof (kWh/m²)	1.00	1.00
Roof (kWh/m²)	1.00	1.00
Roof (kWh/m²)	1.00	1.00
Roof (kWh/m²)	1.00	1.00

Distribution	Energy Demand	Energy Demand	Energy Demand	Energy Demand
Roof	10.00	10.00	10.00	10.00
Roof	10.00	10.00	10.00	10.00
Roof	10.00	10.00	10.00	10.00
Roof	10.00	10.00	10.00	10.00

Energy Consumption



Distribution of Heating Losses



Final Energy - Electricity Demand | PV Gains

