University of Applied Sciences and Arts of Southern Switzerland
Department of Environment Constructions and Design
Institute of Applied Sustainability to the Built Environment

SUPSI

Swiss BiPV Competence Centre

Cold facade

New Tracuit Hut
Zinal, Canton Valais(CH)

Building Details

CONTACTS	Name	Website (or e-mail)
Owner	Swiss Alpin Club, section chaussy	www.cas-chaussy.ch
Architect	Savioz Fabrizzi Architectes	www.sf-ar.ch
Energy Consultant	Tecnoservice Engineering SA	www.tecnoservice.ch
PV Installer	Acomet constructions métalliques; Solernergy installations solaires photovoltaiques	www.acomet.ch; www.solenergy.ch

BUILDING

Completion year	2012-2013 Building		2012-2013 PV Plant	
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other

Building Energy Performance **kWh/m² y** Busy few week a years

Description

The Tracuit mountain hut, at the altitude of 3256 m in the hearth of Valaisan Alps, was built in a new position near the original hut of 1929, that was demolished at the end of the work only preserving the lower part of the walls as a memorial of one other time. The building is fit in the site's topography , in a superb position between a cliff and a glacier. The structural frame is made by wood. The wall and floor components, insulation and cladding, were prefabricated in the factory and transported by helicopter for on-site assembly. The south façade is glazed or covered with solar panels, making maximum use of solar radiation. The PV plant of 11.50 kWp, stand-alone, works together with a 1,000 Ah battery storage. The other facades have a stainless steel cladding reflecting the surrounding landscape. The compact shape of the building and the efficient wall insulation reduce heat losses. A ventilation system is used to significantly recover the amount of heat emitted by the building's occupants, and guarantee the renewal of air for a better comfort.

Aknowledgments Architizer A+Awards Finalist 2014

SOURCE: Thomas Jantscher

BiPV Details

LOCATION OF PLANT

Roof	Flat roof	Sloped	Curved	
Façade	Cladding	Balcony	Greenhouse	Curved
Glass	Façade	Roof	Solar shading	Canopy
Orientation	South	West	East	North
BiPV System	Façade opaque cladding			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	Frameless

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL **MODULE LAYERING** **MODULE FEATURES** **DUMMIES**

DESCRIPTION

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	**Cells**	3 S	
	Module	Various	
Power	**kWp**	Various	
Size	**m²**	89	
Energy production	**kWh/year**	13600	
Cost	**€/m²**	-	

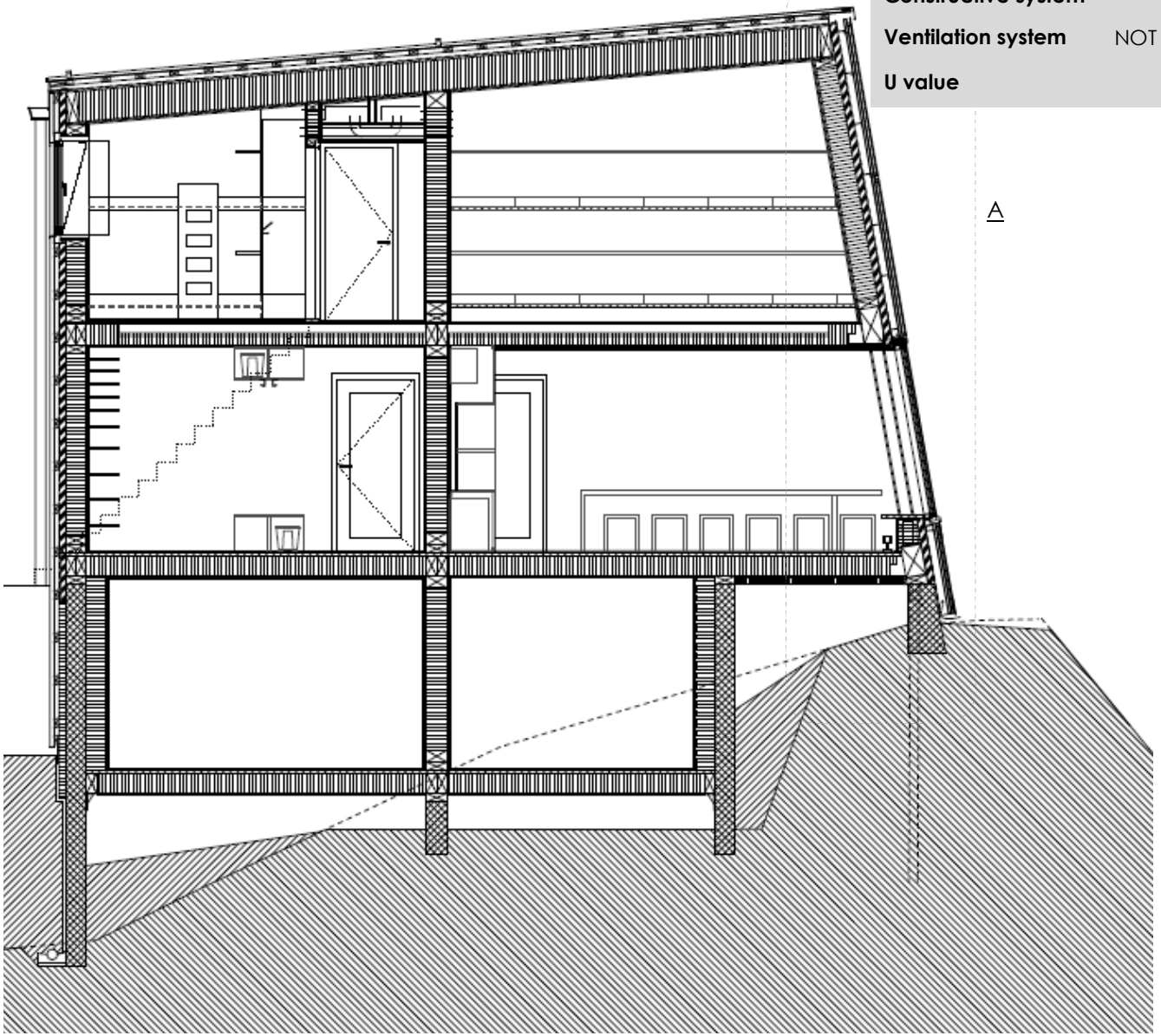
SOURCE: Savioz Fabrizzi Architectes

BiPV Details

BUILDING SYSTEM INFORMATION

Trasparency	OPAQUE	TRASPARENT	G Value
Constructive system	MASSIVE BUILDING		LIGHTWEIGHT
Ventilation system	NOT VENTILATED	MICROVENTILATED	NATURAL VENTILATED
U value			

Transverse Constructive Section



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Detail A