

The Case of Restoration of St Stefano's Church

Swift Nesting Site in Assisi

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Preliminary, a classic...



... old scaffold holes closed.
Supporting arches of the lower square
of the Basilica of St. Francesco



2022



- Bonus 110%
- 2016 Earthquake Repair and Reconstruction
- Rural architecture recovery (PNRR)
- Other types of building works



URBAN BIODIVERSITY
THREATENED!



- **2022: start Citizen Science census of the breeding sites of Common Swift, House Martin and Barn Swallow in Assisi.**



Swift electrocuted by electrostatic system.
Temple of Minerva,
pronaos.

The discovery of the colony

- Between confirmations and critical issues, the discovery of the beautiful colony of Common Swift at St. Stefano's Church.
- Soon, the roof would be completely redone for seismic improvement.

A breeder enters without delay, at great speed, into the hole under the tile.



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The site



- Small Romanesque church (12th-13th century).
- Gable structure, mediterranean roof ('coppo' tiles), walls in 'pietra viva'.
- Set in the alleys in a strip of greenery, away from the main road and tourist flow.
- Absence of recent building works.



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**SETTLEMENT
OF SWIFTS COLONY**

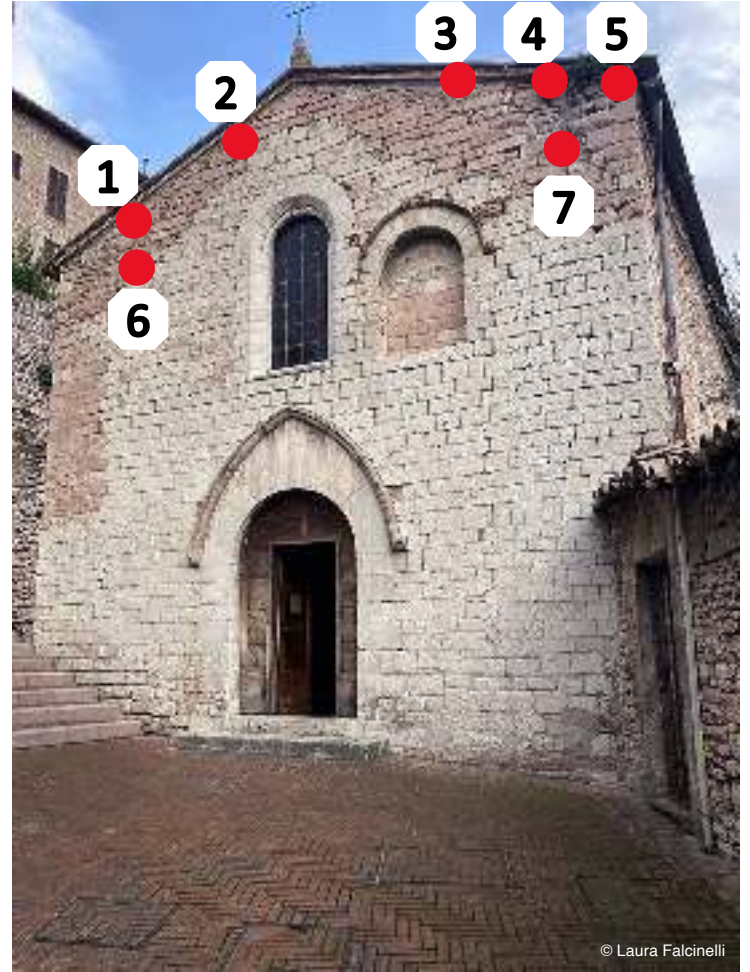
Location observed nests

Ante operam



Useful surface (green)

Facade nest mapping



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Building works

- Start > January 2023 (instead October 2022).
- Critical point > Works in the period from the end of March to July.
- Impact > From serious (colony expulsion) to very serious (expulsion + mortality).
- 2023.02.12 > A bad surprise: dismantling of the roof in the part with the most nests.



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Scaffolding nest boxes 1/2

Carpi model (S. Ignazio)



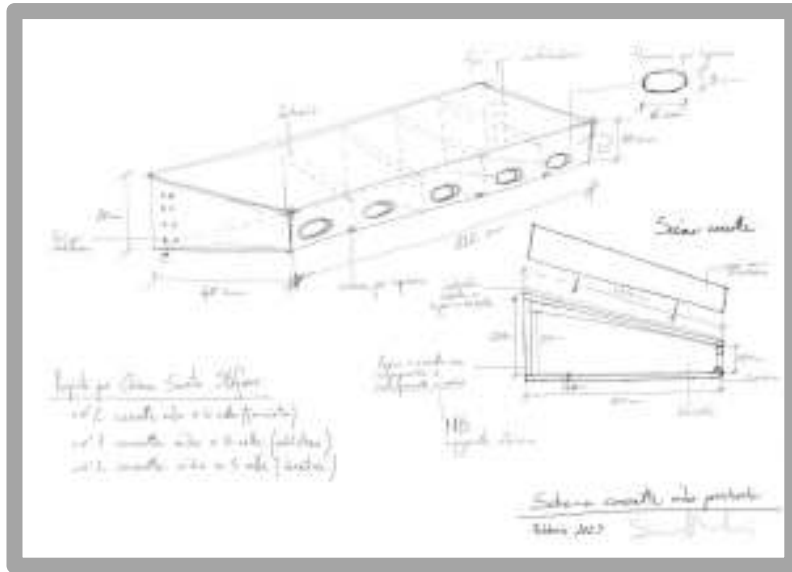
Designed by Mauro Ferri (Monumenti Vivi)
and implemented three samples by LIPU Carpi

Features

- Imitation mediterranean roof
- Multicell
- Imitation internal nests
- Anti-starling tunnel
- Insulation
- Ventilation
- Waterproofing
- Drainage
- Privacy for pairs (*Apus apus*)

Scaffolding nest boxes 2/2

Preparatory drawing



Positioning



The installation



Working team

Some preliminary phases

Cassettes ready for delivery



Eye-catcher



Insulation and false roof

The success...

Adult Swift leaving
the artificial nest-cell
put in front of
original nest



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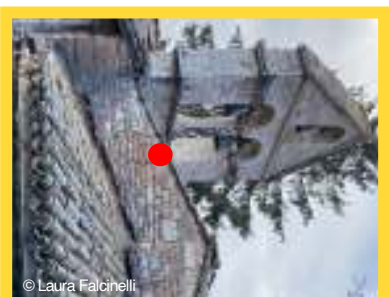
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◀ Ante operam (2022)



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Finding swift's nests during roof demolition



Nest materials with plastic debris

Restoration and creation of new cavities

How to create slots and tips to make work easier and faster.



Template by Mauro Ferri



Extract Ferri-Parisi-Politi

What can go wrong?

General

- Changes to the work program
- Worker turnover

Nest-boxes

- Entry holes in the wrong place (central)
- Toxic chemical waterproofer (alkyd resin)
- Reuse of ancient tiles. A good idea but... the risk was to weigh down the boxes and that they would give way

Examples



Central holes > Redone



Alkyd resin > Replaced

Or...

Discover new nests on both roof pitches of the rectory, which will be restored in a future phase.



Proof of presence:
excrement balls of a
healthy young swift,
fed on insects.



Ignore the advice and walk on the tiles of the rectory with nests and nestlings underneath, while the restored bells are mounted.



First results



April 2024 - Reuse of the restored nest cavity

◀ Ante operam (2022)

What prospects for the future?

The Monumenti Vivi Assisi Project asks the owners and local institutions to:

- conserve the colony of Common swifts which also uses the roof of the rectory;
- implement the colony with the use of artificial nest boxes;
- preserve the habitat-site to support urban biodiversity (ecological role);
- carry out environmental awareness and education projects in the area.



The context

- A. In 1954, the Ministry of Public Education decreed the entire municipal area of Assisi as «*remarkable landscape interest*» because it's an «*inseparable unity from a historical, traditional and **natural** point of view*».
- B. Since 1995, Assisi has been included in the **protected natural area** of the Monte Subasio Park, with regional law.
- C. Since 2000, Assisi is a UNESCO World Heritage Site: «*Assisi represents a unique example of a sanctuary city, perfectly inserted into its **natural environment** which, from its Umbrian-Roman and medieval origins, has reached the present day without interruption*».



Animal Welfare & Biodiversity | National rules

- **Law no. 157/1992** > Protects homeothermic wildlife and regulates hunting. Also, protects urban pigeons.
- **Criminal Code** > **Killing and mistreatment of animals.**
Law no. 189 of the 20th July 2004 (amendments to the Penal Code for killing and mistreatment of animals) has new paragraphs added to the art. 544 which contemplate crimes against human feelings for others animals that are added to the art. 727.
 - **Art. 544-bis - Killing of animals.** *Anyone who causes cruelty or needlessness the death of an animal is punished with imprisonment from three months to eighteen months*
 - **Art. 544-ter - Animal abuse.** *Whoever, for cruelty or without necessity, causes injury to an animal or subjects it to torture or to behaviour or to fatigue or to work that is unbearable due to its ecological characteristics shall be punished (...). The penalty is increased by half if the facts referred to in the first paragraph result in the death of the animal.*
 - **Art. 727 - Cruelty against animals.**
- **Constitution Artt. 9 and 41** > Protect **animal welfare** and **biodiversity** (Reform February 2022).

To Swift's st Stefano

«Grazie (...), per due motivi,
1) per la tua sensibilità nei confronti della natura in generale e nello specifico per aver salvaguardato l'esistenza dei rondoni nel rifacimento del tetto della chiesa di santo Stefano ad Assisi, cosa, purtroppo, non scontata nella città di Francesco, nostro concittadino che la leggenda dice parlasse con gli uccelli.

2) per avermi fatto fare un tuffo nel mio lontano passato, quando da adolescente m'incantavo a guardare la valle del Tescio da un piccolo prato vicino all'hotel La Rocca. In inverno il fiume esondava e allagava tutta la valle, ma in primavera, i fili della corrente elettrica tra me e la valle si riempivano di rondini e insieme agli altri ragazzini rimanevamo come ipnotizzati a guardarle. Grazie ancora», Claudio

«Siamo ad Assisi. Che bella cosa ristrutturare con il ❤️, pensando a chi arriva da lontano e può ritrovare una casa!», Emanuela

«Che meraviglia questa sensibilità!! 🍌», Dora

«Sono iniziative da prendere a modello», Aldo

«Questa storia è poesia pura...solo l'onnipresente spirito di Francesco poteva guidare chi ha fatto quelle casette. Grazie Angela per aver condiviso questa storia e i bellissimi ricordi (che sono anche i miei) 💕», Aldo

«Martinets noirs et monuments Merci à nos amis italiens de Monumenti Vivi 🙌🙌🙌 Instructif», Nicole

«Bellissima questa iniziativa», Diana

«È veramente una bella sorpresa... un caro saluto a te (...)», Miky

«Davvero una sensibilità rara! Stupendo ❤️», Sonia

«Piccolo bellissimo esempio di tutela della biodiversità ad Assisi. Questa sensibilità sembra quasi un miracolo 🍀 Grazie per averlo condiviso.
#BiodiversityConservation
#tutelaambientale», Dora

«Grazie (...) per aver raccontato questa bellissima realtà, peraltro proveniente dalla mia terra natia. Un esempio da far conoscere e valorizzare. Come LIPU continueremo ad impegnarci nella difesa di questi straordinari animali, lavorando sempre più nella promozione di una pacifica e proficua (per entrambi) convivenza», Alessandro

«Questo progetto mi ha aperto gli occhi su molte cose che dimentichiamo quando pensiamo ai nostri siti del patrimonio, principalmente a come si inseriscono nel mondo naturale che li circonda. Grazie di vero cuore», Angela



Working team

- Progetto Monumenti Vivi Assisi
- Menichelli Studio Tecnico di Progettazione, Assisi
- Pelucca Samuele Srl, Pianello, Pg
- Fratelli Buini Legnami Srl, Assisi

Thanks

- To the workers, who worked on a religious building dedicated to the cult of Stephen the protomartyr, protector of masons, stonemasons, pavers, stonecutters and deacons.
- To Sr Susanne, for reviewing the English translations.

Thanks for your attention!

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<https://triesteswift.it/>



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