



**FIFTH INTERNATIONAL SWIFT CONFERENCE**

**RUTH DANIEL RESIDENCE, TEL AVIV-JAFFA, ISRAEL**

**March 11<sup>th</sup> - 16<sup>th</sup> 2018**



*disegno di Roberta Becchi*

# ARTIFICIAL SWIFT NESTS FROM THE MIDDLE AGES UP TO MODERN TIMES



**Mauro Ferri**

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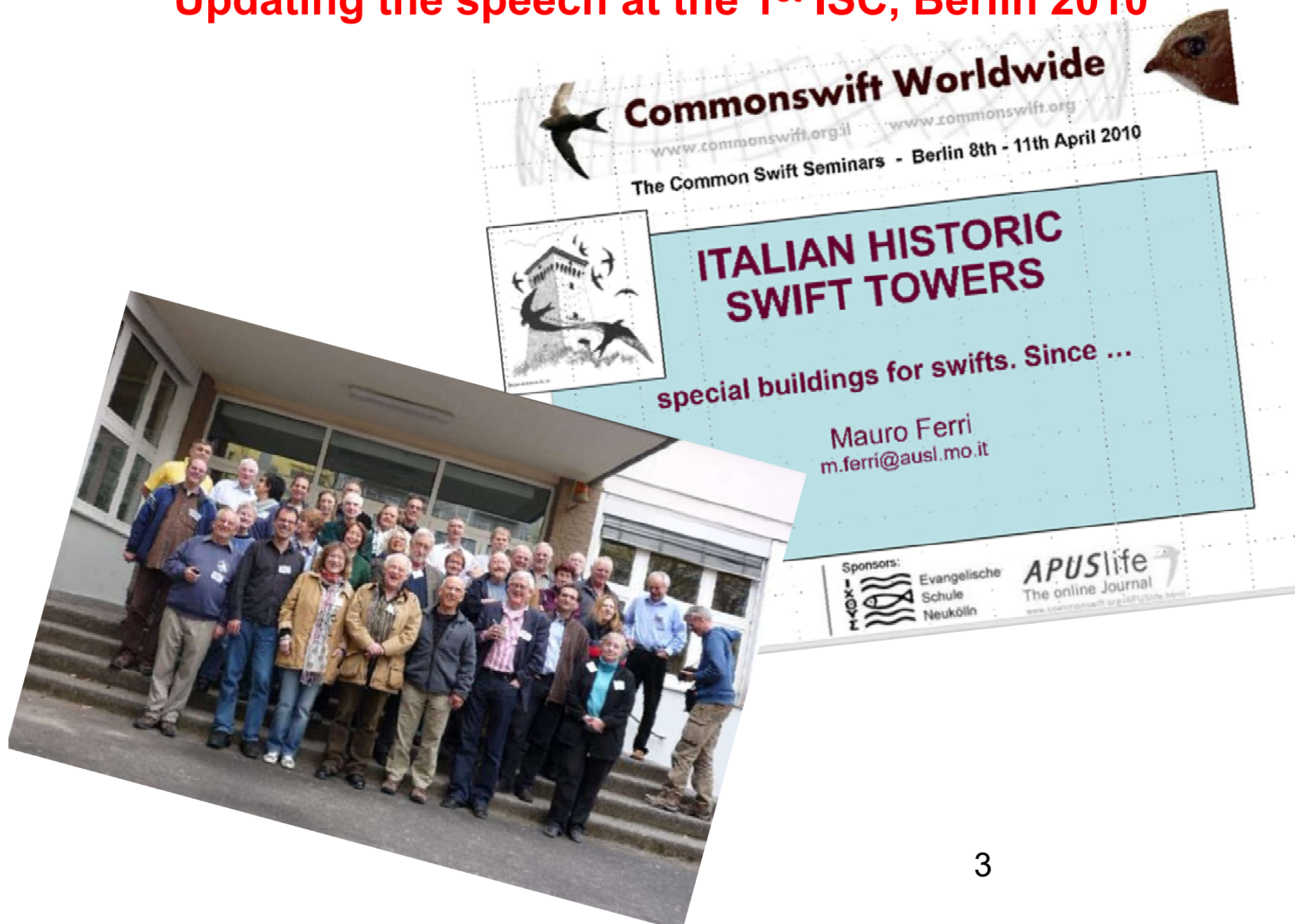
# Summary

*Since the Middle Ages, in a large area of Italy “swift towers” (torri rondonare) were built. They were set in dovecotes, belfries, churches and houses (Ferri 2014), and hosted dozens or even hundreds of artificial nests. The first examples of swift towers are found in the dovecotes of fortified houses of the XIII century, as shown in a fresco dated 1477, and their shapes remained constant in thousands of structures built until the XX century. Although most them have disappeared, evidence remains of rounded or squared entrance holes, nest cells embedded in walls or supported by inner shelves. The colonies were managed by swift keepers who would monitor the nests through little hatches or plugs. The swifts were attracted to these nesting sites in order to exploit their fat chicks as food (Spallanzani, 1797). All chicks but one (Savi 1827) were collected, which meant that this method was “sustainable” for the colonies, as proved by extensive structures with clusters of nests added through the centuries. The conditions for adult swifts and broods were rationally designed and managed to keep the birds safe from predators, unfavorable weather and competitor birds. In the River Po Plain, the same method evolved to attract sparrows, maybe since the 1500s-1600s, reducing the cell dimensions or adopting terracotta bird pots similar to those documented for starlings and sparrows in the Netherlands, Belgium and northern France since the early 1400s (Labbé 2000). Perhaps the regular links between Italy and northern Europe allowed the exchange of techniques for adapting the buildings, as probably happened in coeval Ottoman areas where religious buildings hosted decorated nests for small birds (swifts, swallows?) which were attracted only for devotional purposes. The surviving ancient swift towers are a unique legacy for conservation, research and education as demonstrated by the detailed observations on common and alpine swifts carried out by Spallanzani (1797).*



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# Updating the speech at the 1<sup>st</sup> ISC, Berlin 2010



... recently updated with:



**Ferri, Mauro (2018) – *Ancient Artificial Nests to Attract Swifts, Sparrows and Starlings to exploit them as Food*. In: Duhart, Frédéric & Macbeth, Helen (eds), *Birds as food*. Published by the International Commission on the Anthropology of Food and Nutrition, Enfield (UK), 217-239.**

... adding additional material for swift fans  
here at the 5<sup>th</sup> ISC, Tel Aviv, March 11-16, 2018



## YES, SWIFT TOWERS!

*Since the Middle Ages, in a large area of Italy “swift towers” (torri rondonare) were built. They were obtained in dovecotes, belfries, churches and houses (Ferri 2014), and hosted dozens or even hundreds of artificial nests.*

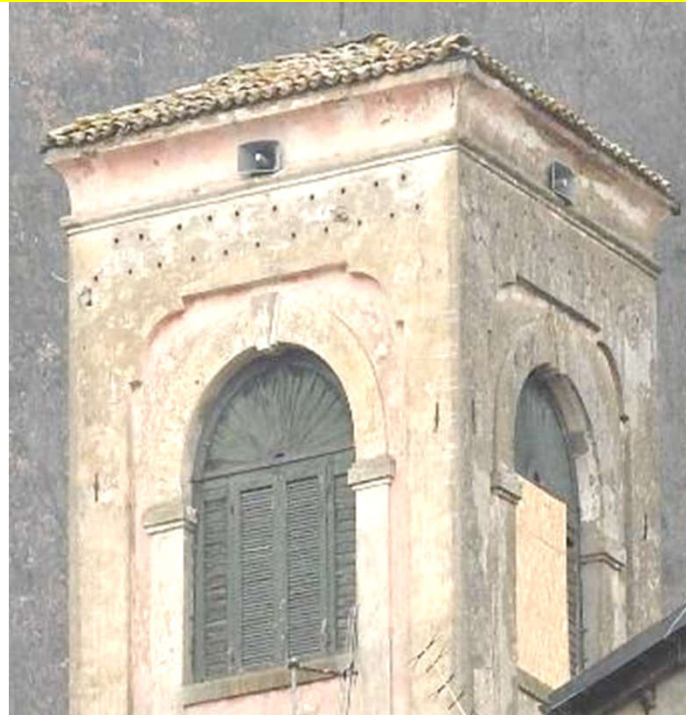


*disegno di Roberta Becchi*



**JUST TOWERS? NOT EXACTLY!**

**Old structures:  
towers**



**More recent structures:  
houses**

**In the meantime  
also belfries...**





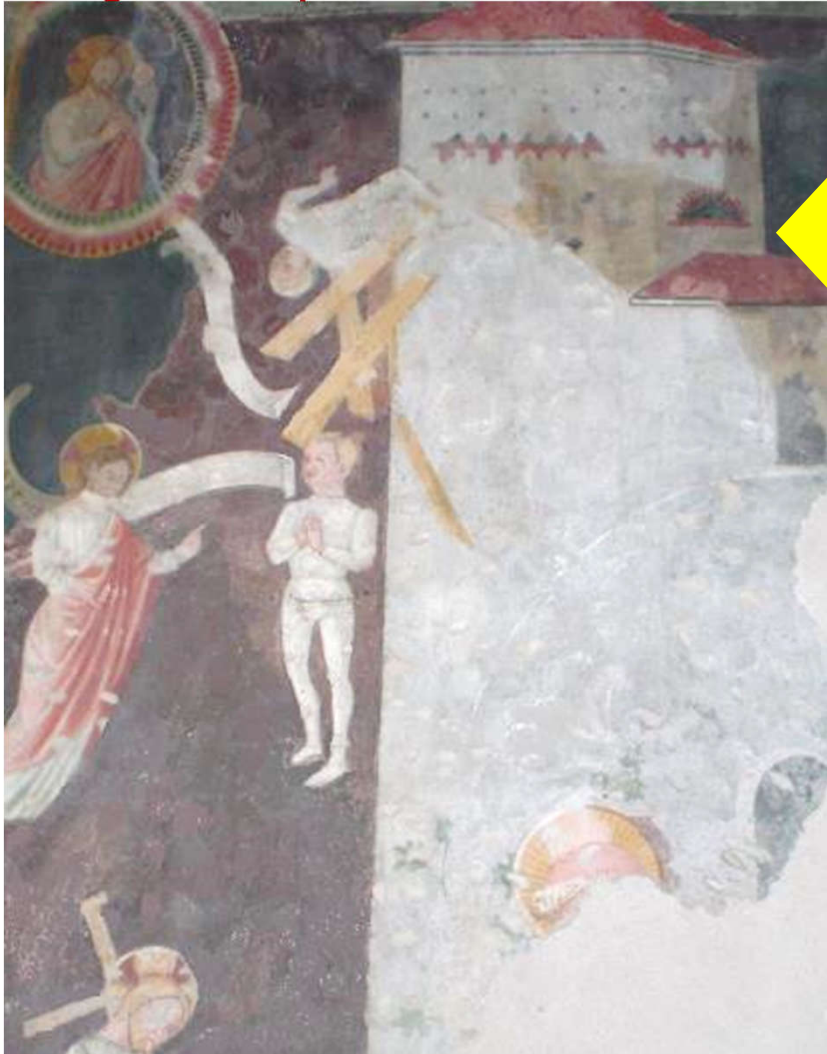
not just towers...





***The first evidence of swift towers is found in the dovecotes of fortified houses from the XIII century, as shown in a fresco dated 1477, and their shape remained constant in thousands of structures built until the XX century. Although most of them have disappeared, evidence remains of rounded or squared entrance holes, nest cells embedded in walls or supported by inner shelves.***

**Here the fresco by Maffiolo da Cazzano, 1477, Church of Mourning Madonna, Mornico al Serio (BG). Enlarged and improved to show the details and compare the medieval tower with the one in Nago (TN).**



***Toresela, Nago-Torbole, TN***



## A miraculously saved swift keeper?

In 1477 Maffiolo da Cazzano painted this fresco showing a man miraculously saved after falling from a high swift tower.

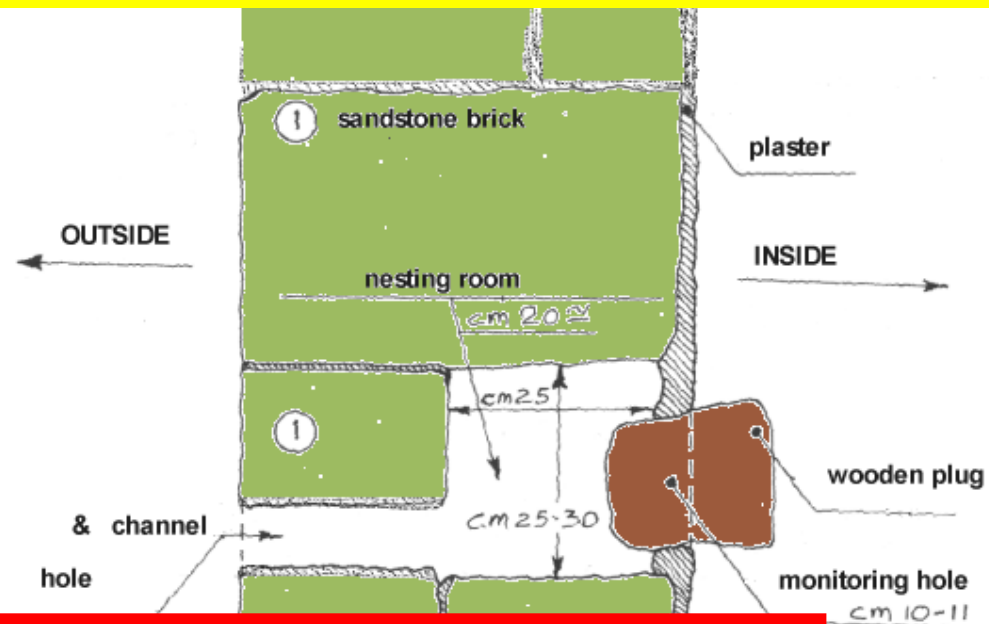
Note: the <snow flakes> are actually hammer blows to facilitate the adhesion of the white plaster with which the walls were covered, when the church became a hospital for the black plague in the mid 1600s.

**Mornico al Serio (Bergamo, Lombardy, Italy)**



The full painted Chiesetta dell'Addolorata, XI-XV century, is worthy a visit.  
Call the Parish: +39 035844035

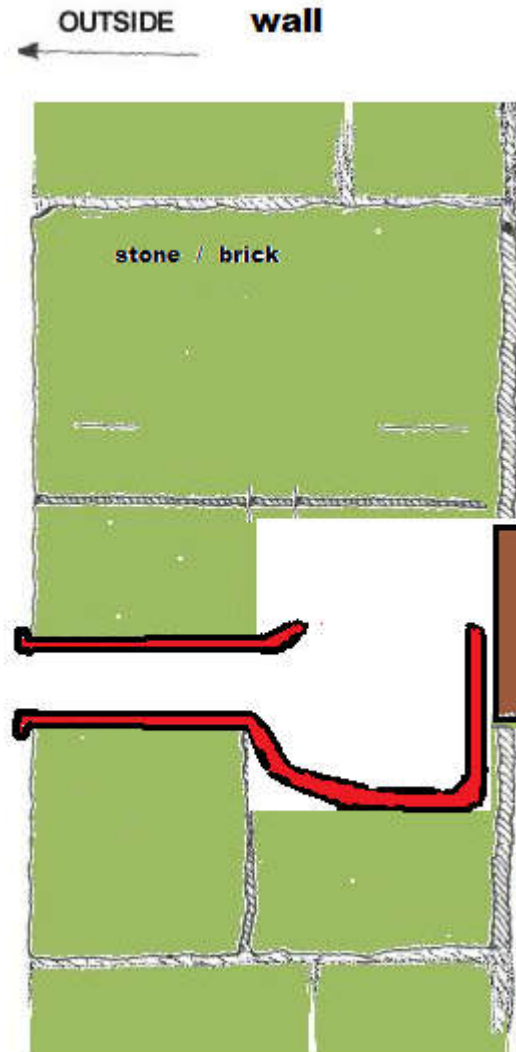
## Type A: NESTING CELLS EMBEDDED IN WALLS old structures in thick walls







# Type A, EMBEDDING TERRACOTTA BIRD POTS old structures in thick walls



In some cases: hybrid with only the bottleneck, to ensure regular holes, often marked outside in color, often red. Inside: built-in-the-wall or on the scaffold.

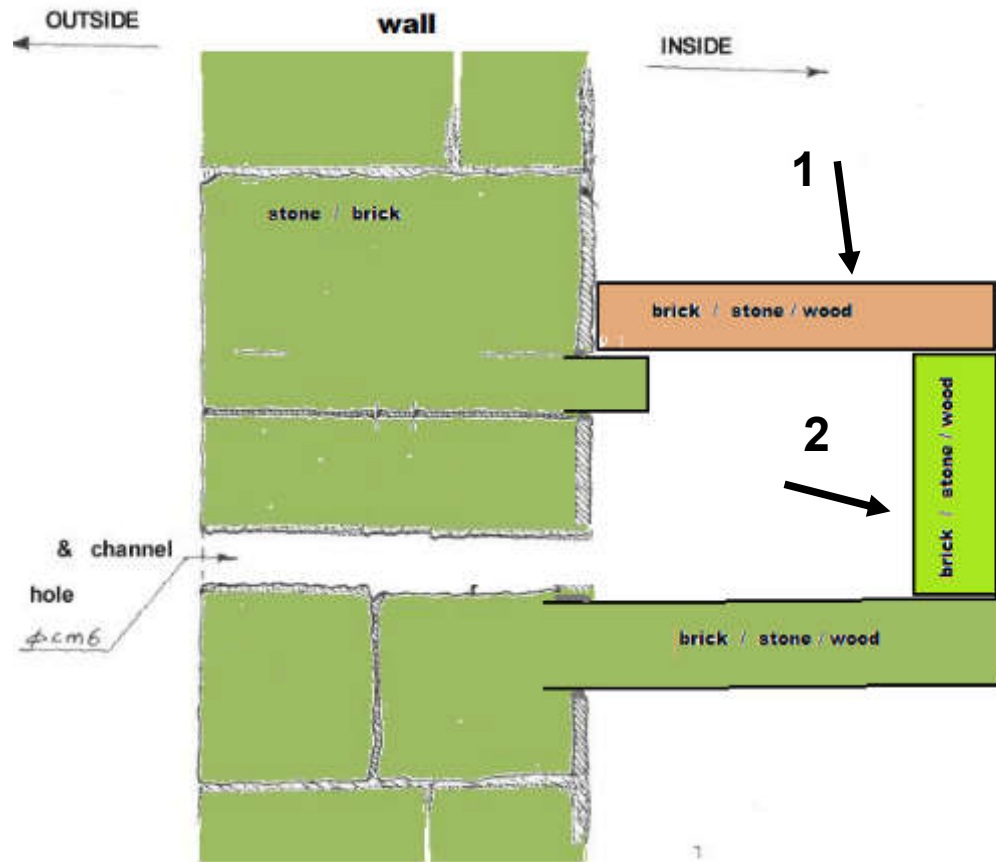
SWIFT HOLES from the XVI century at BOJON di CAMPOLONGO MAGGIORE, PD (Italy)  
(ref. in a slide further on)

Bagno di Romagna (FC) XIX century?





## Type B: NESTING CELLS ON INNER SHELVES in thin walls of roof dovecotes, houses etc.



Materials varied from stones and clay bricks to wood. Nesting cells were monitored at points 1 or 2 (hatches). The oldest one I saw was from the XVI century in Varone, Trento (now destroyed).

***The structures for adult swifts and brood were rationally designed and managed to keep the birds safe from predators, unfavorable weather and competitor birds.***



The colonies were managed by a swift keeper who would monitor the nests through little hatches or plugs.



*An ornithologist checking swiftlets to be ringed. Castellaro, Guiglia (MO).*



*The swifts were attracted to exploit their fat chicks as food (Spallanzani, 1797). All chicks but one were collected (Savi 1827), in a way we may say “sustainable” for the colonies, as proved by extensive structures with clusters of nests added across the centuries.*

## **SWIFTS AS FOOD**

### **In most areas:**

- picking *pulli*, just before they leave the nest: >60 g, «little butter breads» (Spallanzani 1797);
- leaving at least one chick in every nest (Savi 1827; my interviews to three aged former swift keepers);
- for special meals, often offered to important persons;
- clusters of new nests added from time to time;
- **large compounds of hundreds of cells (200-400-600...).**

### **In some areas:**

- grabbing any available bird, both young and adult;
- using them for family meals;
- **little compounds of tens of cells.**



## **A VERY EXPENSIVE CROP**

### **EVIDENCE**

**Crop per each nest: 75 g**

**The Castellaro st max prod.: 18 kg, once a year**

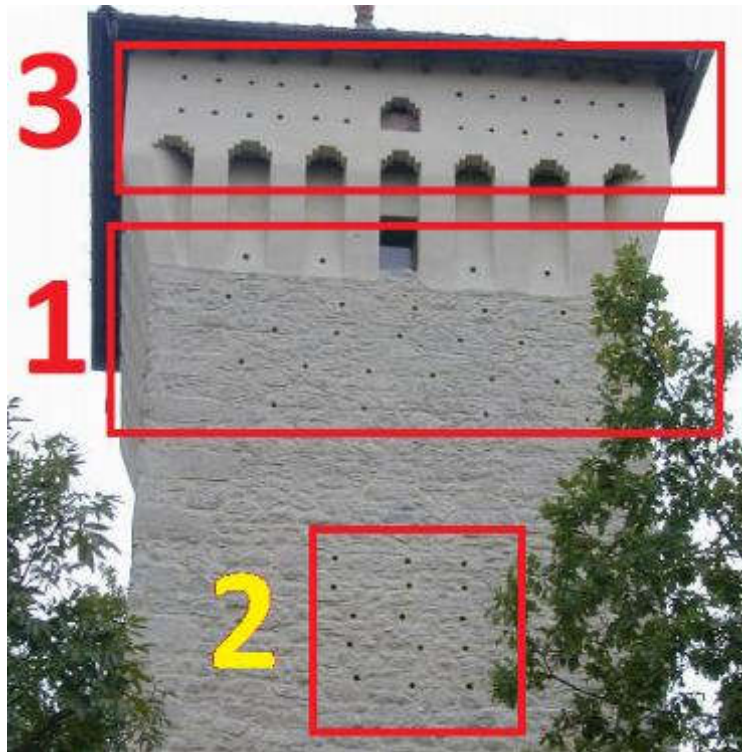
**Cost in building and upgrading: very high**

**The chick meat was cooked and preserved as a delicacy for gourmets, often as a «gift among wealthy families»**

**(lines of several nests are found also in modest houses)**

## AN INTEREST FOR FOOD... PRESERVING THE COLONIES?

The swifts were attracted to exploit their fat chicks as food (Spallanzani, 1797) **All chicks but one were collected** (Savi 1827), in a way we may say “sustainable” for the colonies, as proved by extensive structures with clusters of nests which were added through the centuries.



**≈ 250 nests**  
on three levels  
XVI-XIX centuries

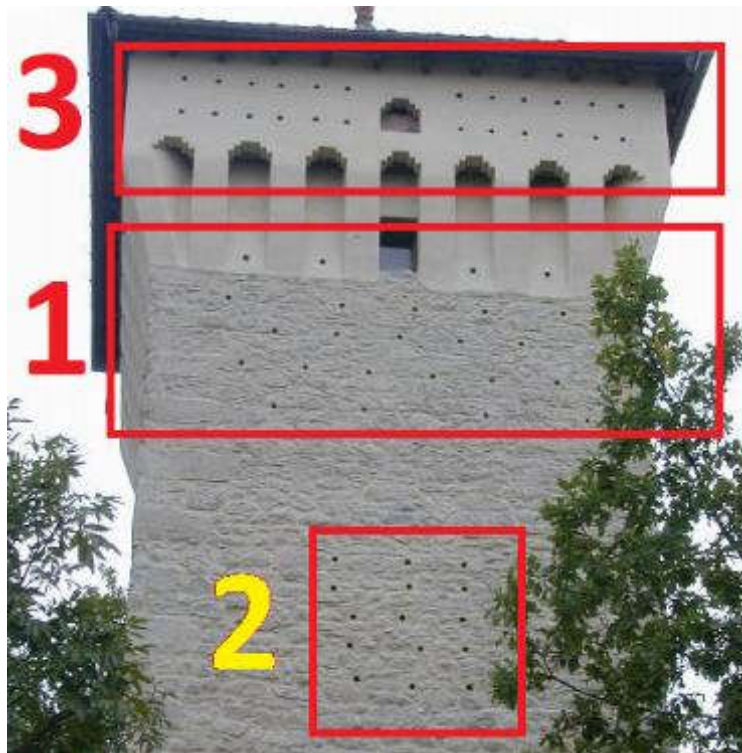


**≈ 1000 nests**  
on three stories in 30 years,  
XIX-XX centuries



## AN INTEREST FOR FOOD... ENHANCING THE COLONIES?


The swifts were attracted to nest in order to exploit their fat chicks as food (Spallanzani 1797). **All chicks but one were collected** (Savi 1827), in a way we may say “sustainable” for the colonies, as proved by expensive structures with clusters of nests which were added through the centuries.



**≈ 250 nests**  
in three levels  
(XVI-XIX centuries)



**< 20 nests**  
in a small rural warehouse  
(XIX century)



The structures for adult swifts and broods were rationally designed and managed to keep the birds safe from predators, unfavorable weather and competitor birds.

## ARTIFICIAL NESTS INSIDE BUILDINGS

TESTED ACROSS THE  
CENTURIES AS VALID  
SHELTERS AGAINST:

- RAIN
- WIND
- COLD WEATHER
- EXCESSIVE HEAT
- PREDATORS

**ALLOWING AN EASY ANNUAL MAINTENANCE**



**SHINY TILES WERE  
PLACED ON  
CORNER STONES**

**to prevent stone martens and  
rats from climbing the walls**



**tiles were also  
made of tin**





## Ca' Caula, Zocca (MO): 150 cells (a very rational setting)

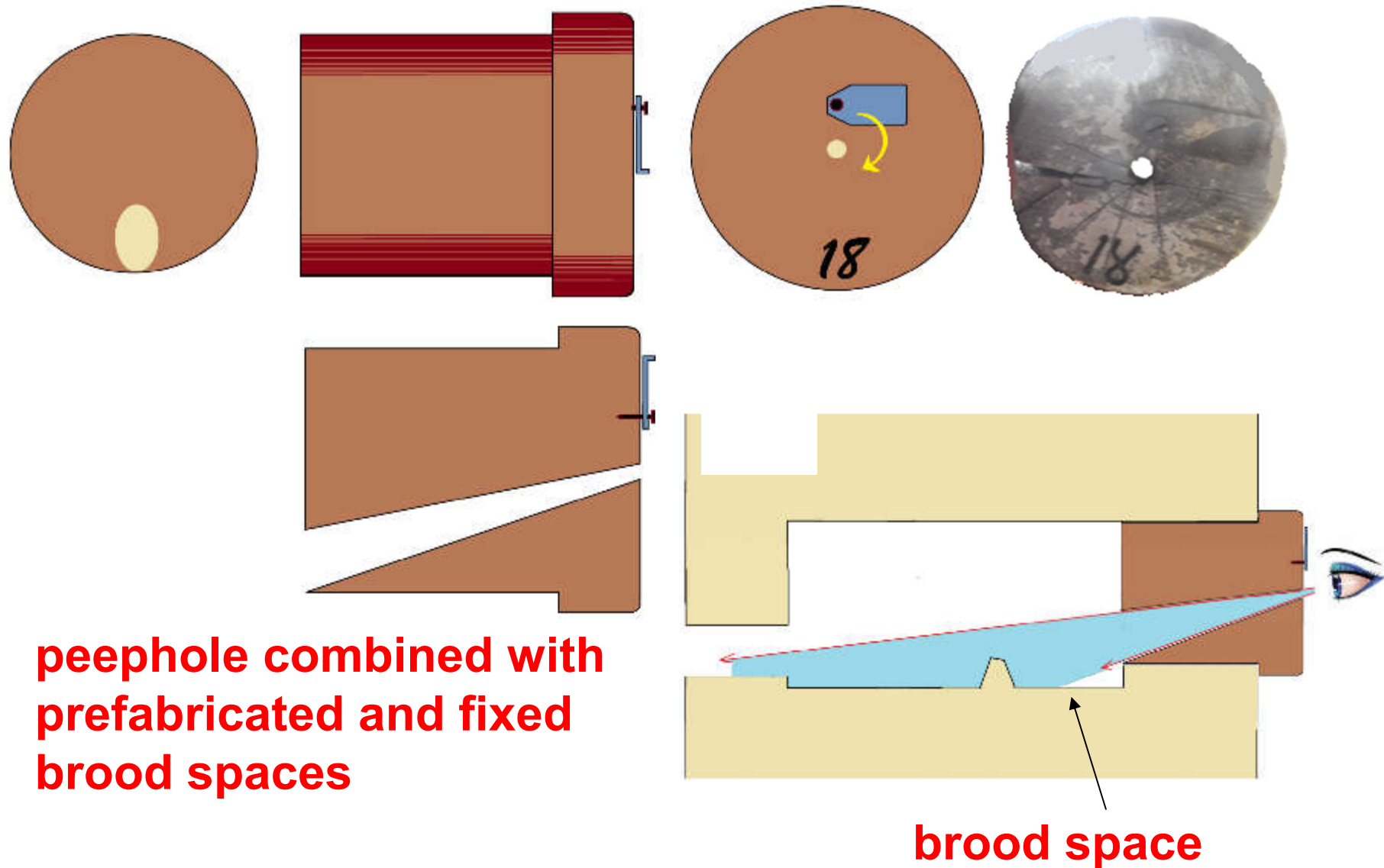


**Ca' Caula, Zocca (MO): 150 cells, XVIII-XIX century (a very rational setting)**

**Plugs worked on the lathe, flyaway holes in hollow bricks – same dimensions everywhere, prefabricated brood mounds in every cell – ID for every nest – peephole in every plug.**



## Ca' Caula, Zocca (MO): 150 cells (a very rational setting)





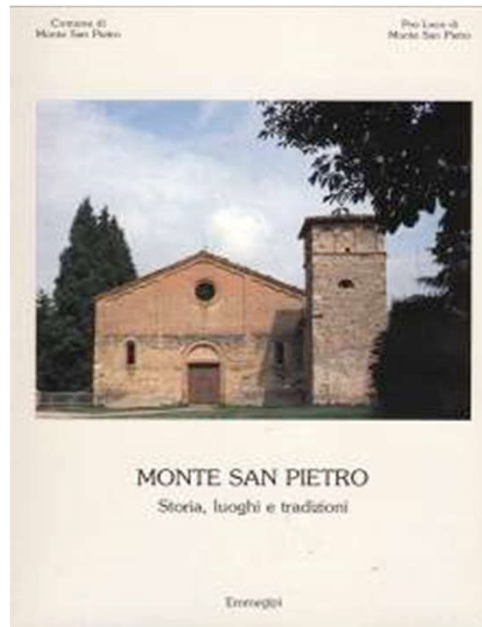


# The unpleasant news: **HOW MANY OF THEM WILL LAST...?**



photo by G. Boano





*Monte San Pietro,  
Storia, luoghi e  
tradizioni. Comune di  
Monte San Pietro –  
Pro Loco; Emmegipi,  
1987, 2003.1-181.*



**My survey was based on  
three catalogs of historical buildings  
published in the 1980s  
( $\approx 1400 \text{ km}^2$ )**

*Insedimento storico e beni  
culturali*

*Alta Valle del Panaro,  
Amministrazione Provinciale di  
Modena- IBACN, 1988; 1-593*

*mappe allegate*

*Insedimento storico e  
beni culturali*

*Alta Valle del Secchia,  
Amministrazione  
Provinciale di Modena-  
IBACN, 1981; 1-240*

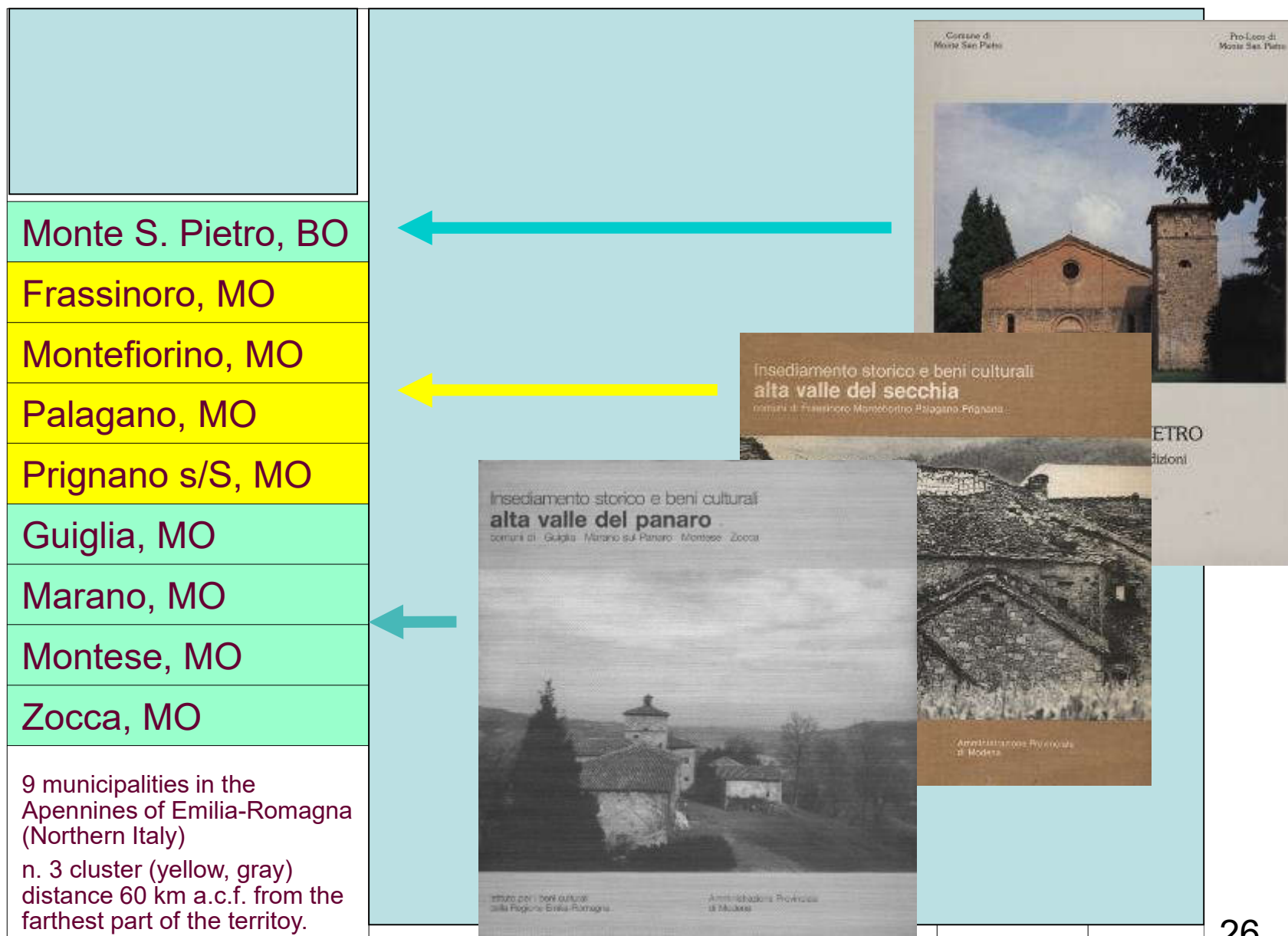
*mappe allegate*







## How many historical artificial nests for swifts still survive...?







## How many historical artificial swift nests survived in the 1980s?

Municipalities with references for census of historical buildings (Municipality or Province)	km <sup>2</sup>	m a.s.l. (average)	Year of census (ed.)	Historical buildings no.	with historical artificial nest for swifts no.	%
Monte S. Pietro, BO	74.6	112	1987	109	5	4.5
Frassinoro, MO	96.0	1131	1981	58	0	0
Montefiorino, MO	45.4	797	1981	52	3	5.7
Palagano, MO	60.5	703	1981	52	3	5.7
Prignano s/S, MO	80.4	557	1981	66	4	6.0
Guiglia, MO	49.0	490	1988	135	32	23.7
Marano, MO	45.2	142	1988	67	2	2.9
Montese, MO	80.7	841	1988	123	5	4.0
Zocca, MO	69.1	758	1988	85	23	27.0
9 Municipalities in the Emilia- Romagna Apennines, northern Italy no. 3 clusters Max distance 60 km a.c.f. across the territory	<b>600.9</b>	<b>112-1131</b>	<b>1981-1988</b>	<b>747</b>	<b>77</b>	<b>10.3</b>  27

# WHAT THE FRIENDS VISITING OUR HILLS HAVE SEEN IN THE PAST FEW YEARS

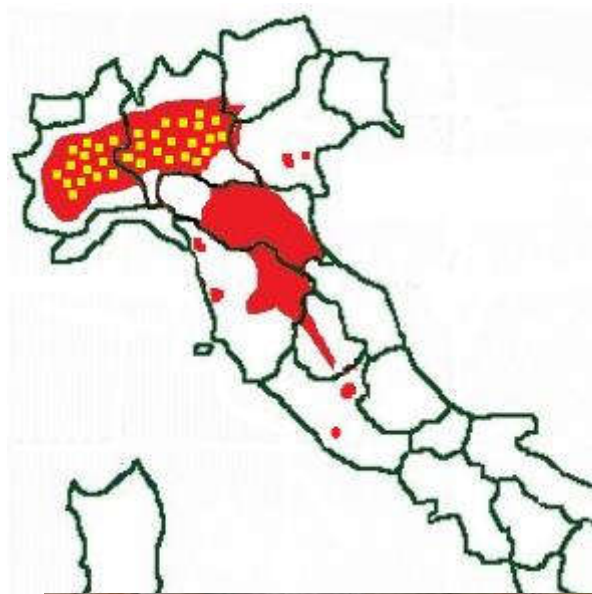
A panoramic view from the hatch of a Historical Swift Tower



five HSTs in less than 2 km<sup>2</sup>



*In the River Po Plain, the same method evolved to attract sparrows, perhaps since the XVI century, reducing the cells' dimensions or adopting terracotta*



05.07.2018 11:20



PURTROPPO, UNA VITA DI MURDO E DI LITIGIO...



## sparrow compound



## sparrow and swift compound



## THE PURPOSES OF TRADITIONAL BIRD POTS

### Sparrows in Italy, the Flemish countries etc.

- to collect *pulli*, just before they leave the nest (as for swifts);
- to preserve the third brood (Fossé, 2009; pers. comm. in Italy);
- the harvest used for family meals and market (till the 1950s);
- In **France** also for the purpose of destroying pests and attracting pest-destroying birds;
- In **Italy** the compound of nest cells numbered usually in the hundreds: the colonies seemed not to suffer from the harvest;
- In five **English counties** (Cooper 2004) to destroy pests, in egg chicks and adults until the early XX century.

**If these structures are not managed for sparrows,  
they are well-suited for swifts  
and people started to call them “swift towers”**





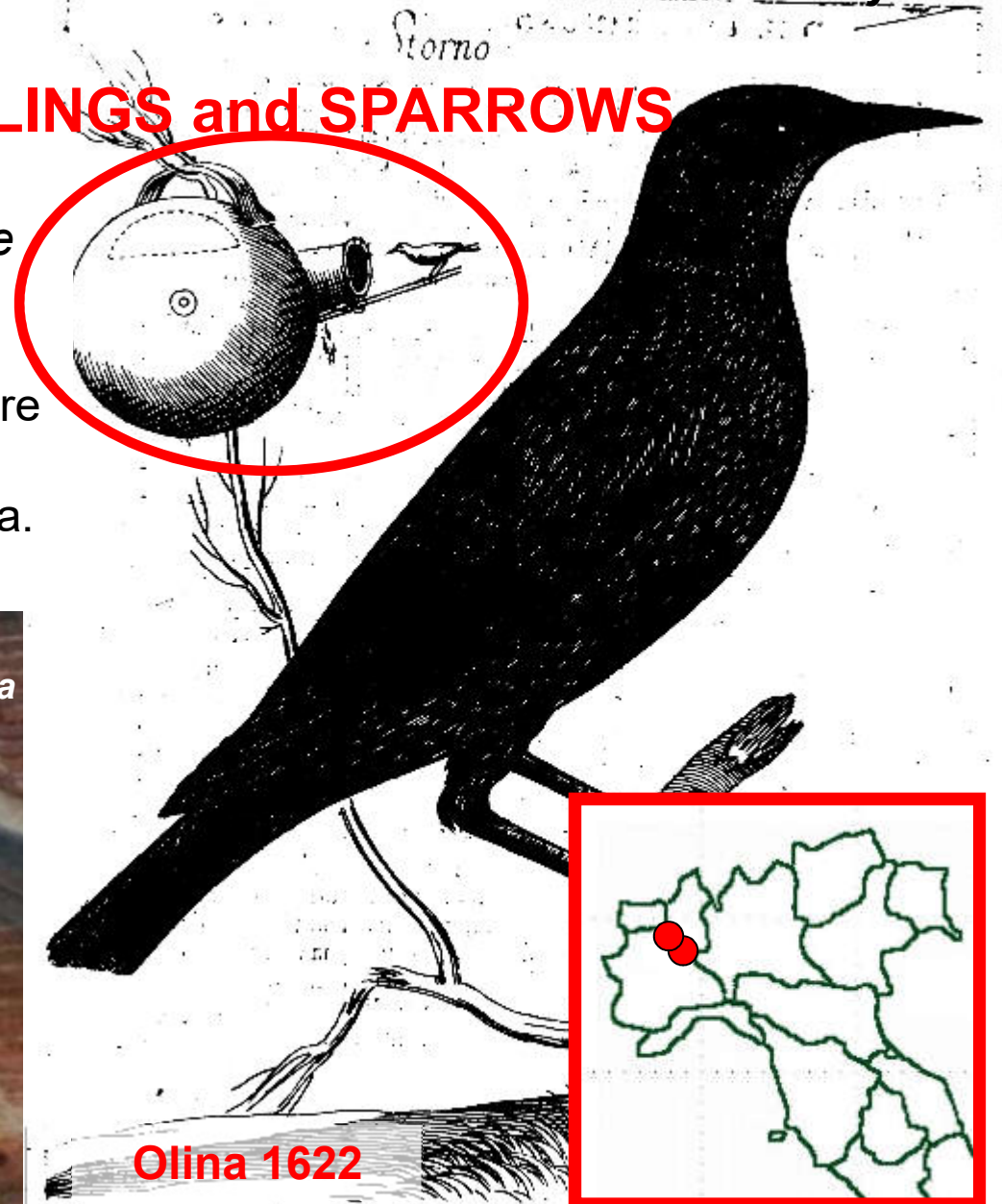
**Terracotta bird pots in Italy very similar to those documented for starlings and sparrows in the Netherlands, Belgium and northern France since the early XV century (Labbé 2000).**

## **BIRD POTS for STARLINGS and SPARROWS**

**Olini G.P. (1622)**

*Uccelliera ovvero Discorso della natura e proprietà di diversi uccelli.*

Olini was from **Novara** (Piedmont), where birds pots seemed to be unique in Italy, as seen nowadays in **Biella**, near Novara.



***THE SAME SCENE IN TWO DIFFERENT PLACES***  
***1000 km and 600 years away***





## Les Très Riches Heures du Duc de Berry, by the Limbourg Brothers and Jean Colombe, 1412-1416 and 1485-1486

*from Folio 164: La Cananéenne, part.*



Much earlier than those in  
“Frederik van Valckenborch’s  
*Kirchmessfest*, 1597” quoted  
by Campbell and Lack (1985)

Maybe the first image of  
a bird pot

(or should I better check  
other manuscripts...?)



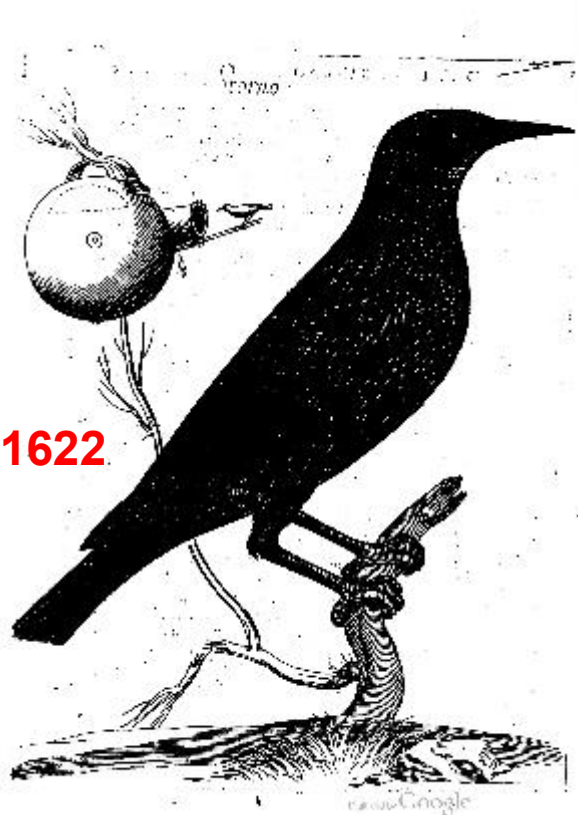


**Saint Christopher  
carrying the Christ Child**

*Hieronymus Bosch*

**1496**

*Museum Boijmans Van  
Beuningen, Rotterdam, NL*



**Olina 1622**



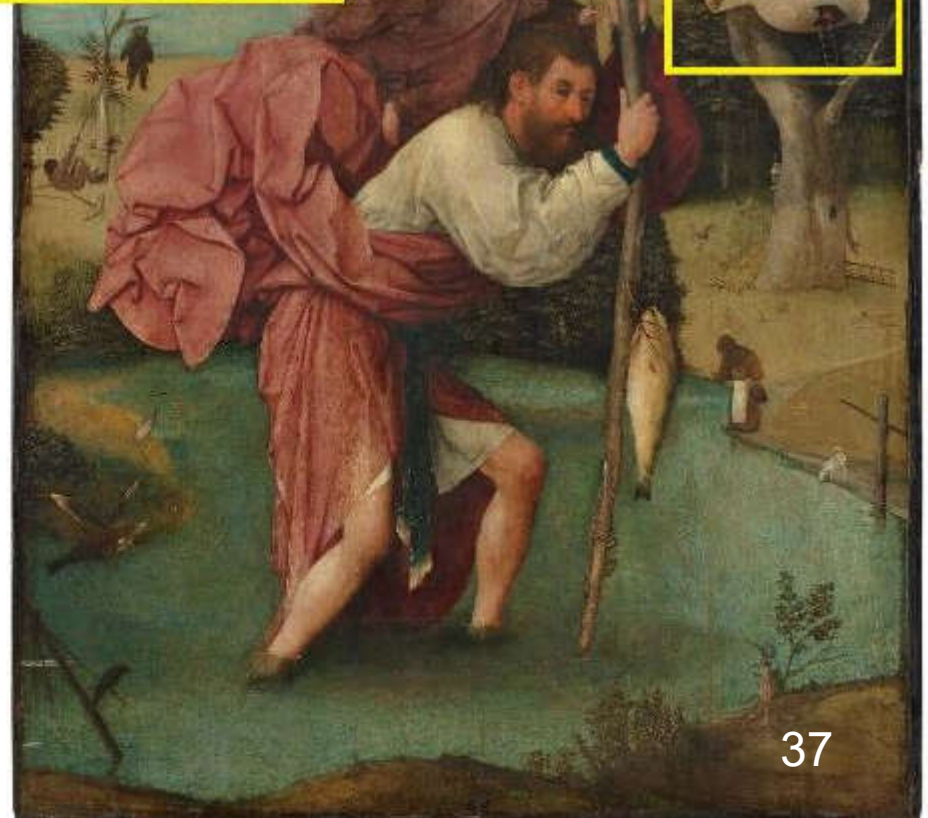
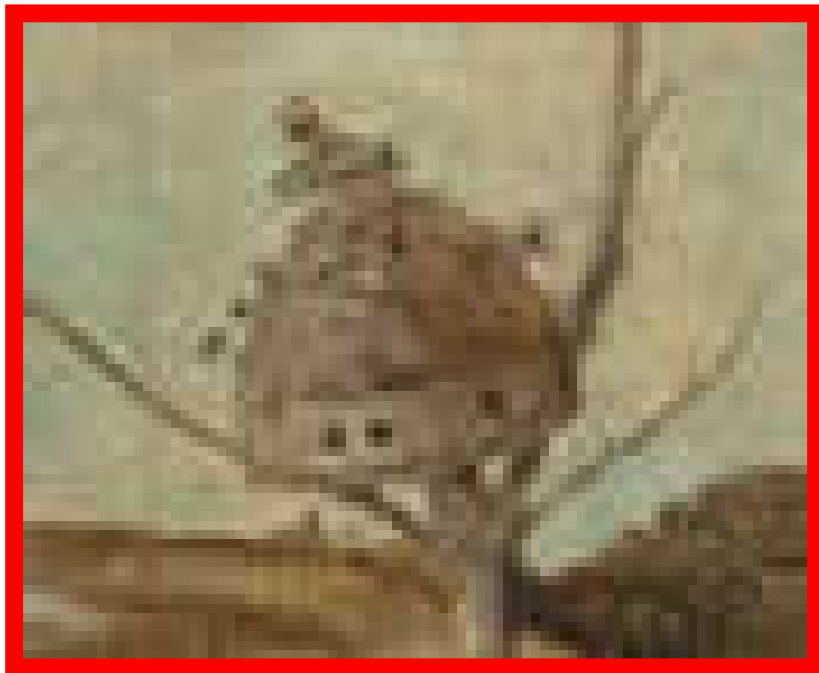
**Saint Christopher  
carrying the Christ Child**  
*Hieronymus Bosch*

**1496**

Museum Boijmans Van  
Beuningen, Rotterdam, NL



**BIRD POTS & BIRD COMPOUNDS**

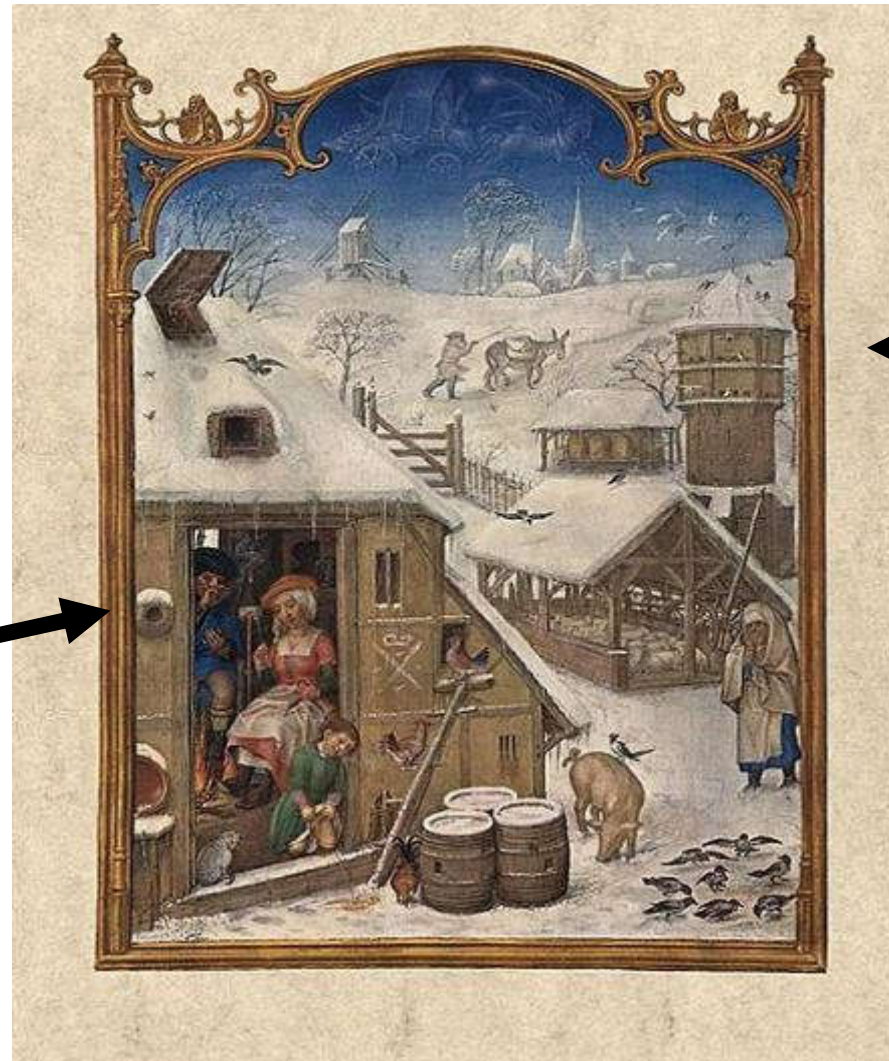




Ca. **1501** – Breviarium Grimani, month of February  
**BIRD POTS & DOVECOTES WITH A TOWER FROM ANOTHER BREVIARIUM**



bird pot

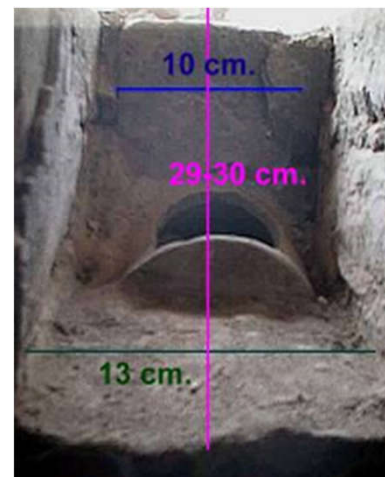
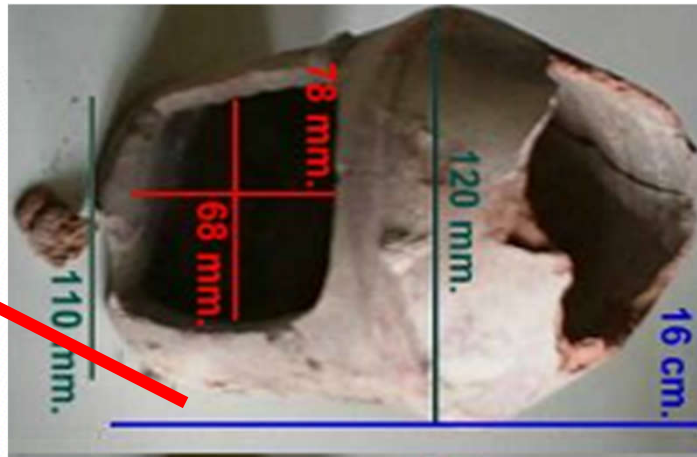


dovecote  
with upper holes  
(for which birds...?)



## FOR SWIFTS

IN ITALY TOO BIRD POTS WERE IN USE IN THE SAME PERIODS. THEY WERE GENERALLY EMBEDDED IN WALLS.



Ref:  
<http://www.anto2ni.it/ludovico/Rondonaia/rondonaia.htm>



Maybe there was a two-way traffic of ideas between Burgundy, the Flemish countries and Italy

Jean Le Tavernier, miniaturist of *Conquestes et croniques de Charlemaine* (1458-1460)

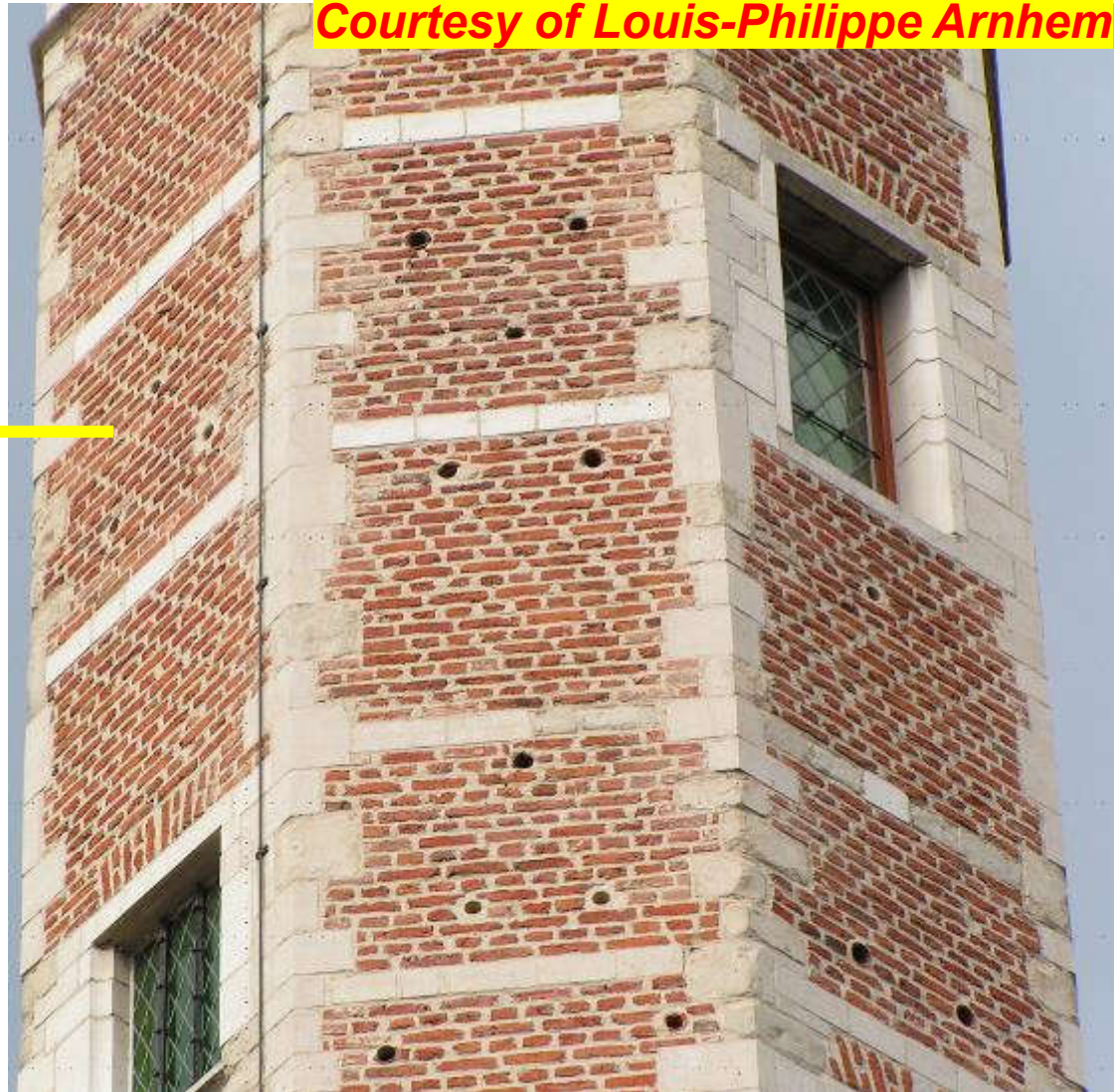




Maybe there were ties between the Flemish countries and Italy

Refugie van de Abdijs van Sint-Truiden, Mechelen (B), 15th-16th century

Courtesy of Louis-Philippe Arnhem





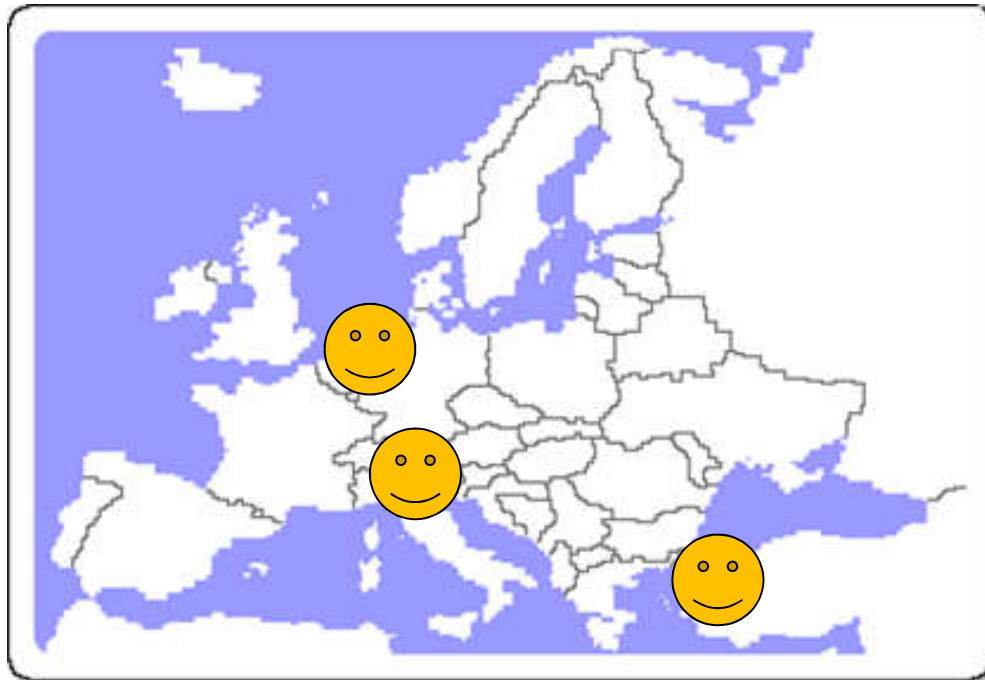
# ANCIENT ARTIFICIAL NESTS

AFTER

- FLEMISH COUNTRIES AND BURGUNDY
- ITALY

A THIRD AREA OF INTEREST

- TURKEY



# OTTOMAN BIRD HOUSES

## KUŞ KÖŞKLERİ KUŞLARIN SARAYLARI



Ferri, Mauro (2018) - Ancient  
Artificial Nests to Attract  
Sparrows and  
Exploit them  
Frédéric

**Ottoman <Bird houses>**  
Finally, it is interesting to go elsewhere, to the Middle East, to find an interesting ancient practice of artificial nests, strictly intended only for devotional and compassionate purposes, spread throughout Ottoman influence in Anatolia and of course in Istanbul, where Ottoman-style mosques and dwellings (Figure 17) are frequently decorated with fantastic 'bird houses' (*Kuş Köşkleri*, *Kuşların Sarayları*). These buildings were built or renovated from the fifteenth and sixteenth



Figure 17:  
A bird house in an old  
Ottoman dwelling;  
those in religious  
buildings are generally  
in excellent  
conserved condition  
(c.f. pictures in Aksoy 20  
and  
Akay and Yogurtcu 201

Photograph © Mauro Ferri





**OTTOMAN BIRD HOUSES**  
**KUŞ KÖŞKLERİ**      **KUŞLARIN SARAYLARI**

*Main towns of Anatolia, common in Istanbul,  
religious buildings, schools, houses, bridges*



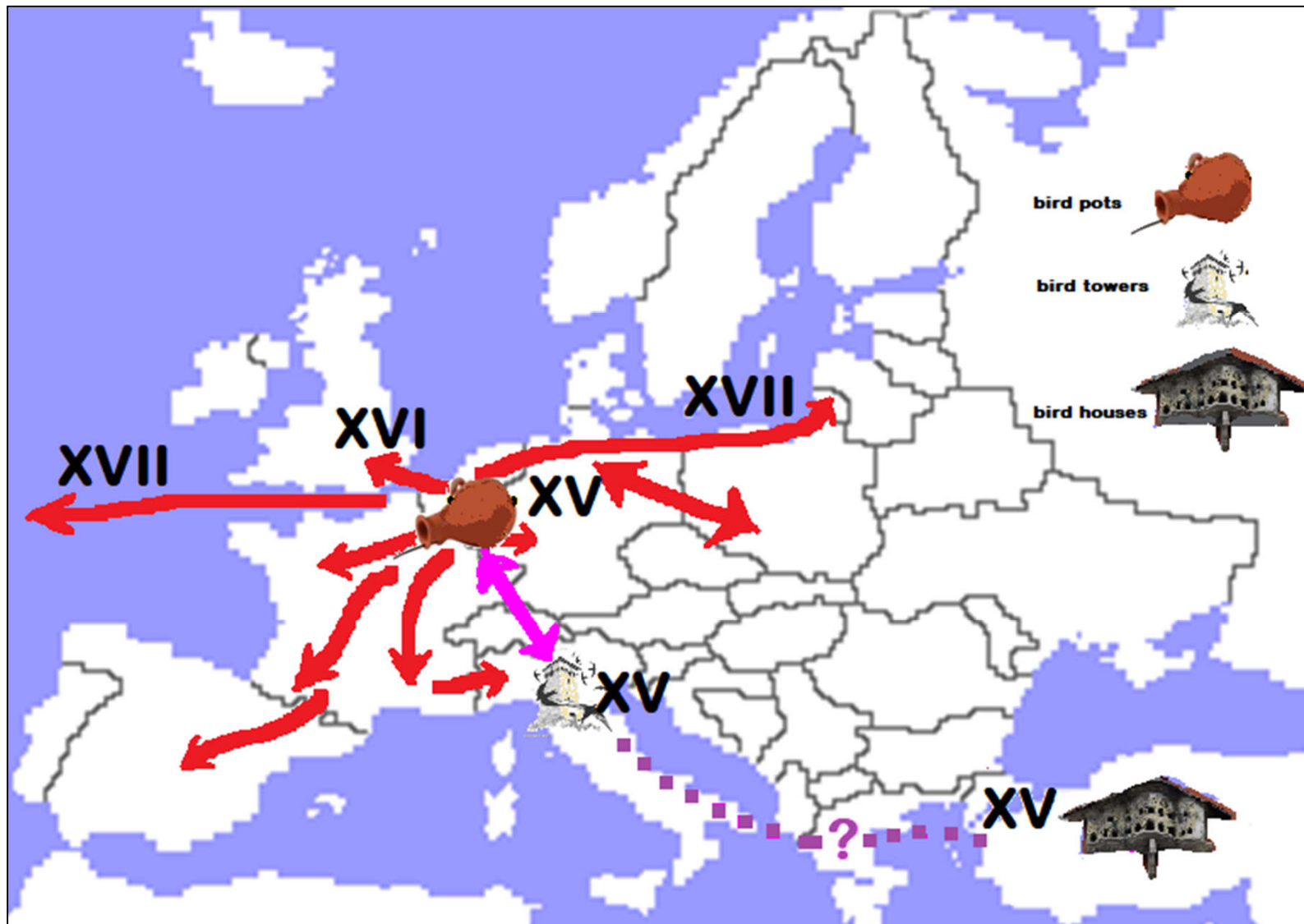
**XV-XIX centuries**  
for devotional and compassionate  
purposes



Images from webpages talking about **KUŞ KÖŞKLERİ**



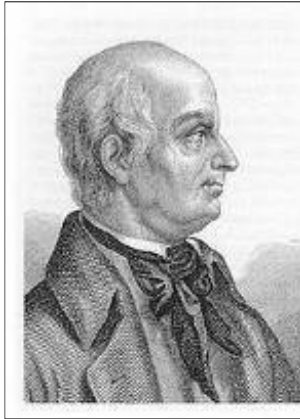
*Perhaps the regular ties between Italy and northern Europe allowed the exchange of techniques for enriching the buildings with artificial nests, as it probably happened in Ottoman areas in the same period. Here, religious buildings hosted decorated nests for small birds (swifts, swallows?), which were attracted only for devotional and compassionate purposes.*



# **CONCLUSIONS**

**WHY IS THE HERITAGE OF ANCIENT SWIFT TOWERS  
SO IMPORTANT EVEN TODAY...?**

**THERE ARE MANY REASONS...**



Lazzaro Spallanzani

**1729 – 1799**

“Viaggi alle due Sicilie e in alcune parti dell’Appennino”, 1797

- 3rd booklet, *Rondone Hirundo apus*
- 5th booklet, *Hirundo melba*

Spallanzani used the cells of «dovecotes for swifts» in the province of Modena to study in detail the migration, biology and behavior of both the **Common** and the **Alpine swift**.



This is probably the swift tower where Spallanzani studied the **Alpine swifts**



# MODERN FIELD RESEARCH AS IT WAS FOR SPALLANZANI (1797)

Nowadays five groups are engaged in long-term activities:  
**Boano G., Ferri et al., Ciani C., Caffi M., Gelfi et al.**

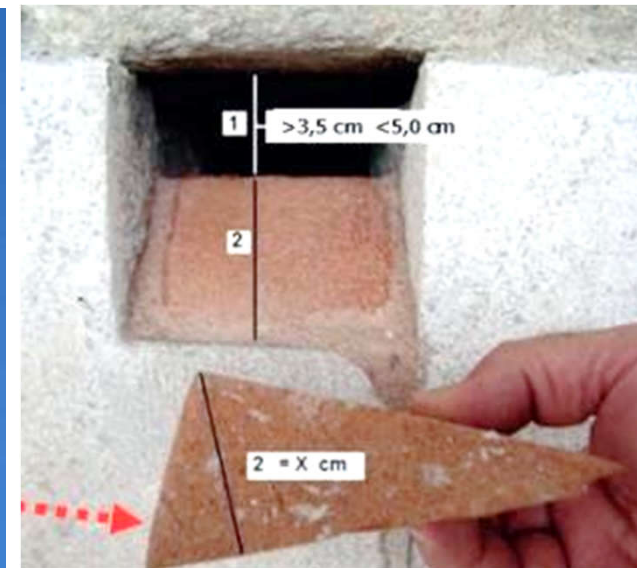




# INSPIRING A **HUMANE** CONTROL OF URBAN PIGEONS WITH A NEW DESIGN FOR SCAFFOLD HOLES, FRIENDLY FOR SWIFTS AND BATS

[http://www.festivaldeirondoni.info/documenti\\_scaricabili.html](http://www.festivaldeirondoni.info/documenti_scaricabili.html)

Ferri, M., Ferraresi, M., Gelati, A., Zannetti, G., Domenichini, A., Ravizza, L., Cadignani, R.. 2011 - Control of the urban pigeon *Columba livia* population and the preservation of common swift *Apus apus* and *Chiroptera* bats during the restoration of the Ghirlandina tower in the city of Modena (Italy). In: Jens Jacob, Alexandra Esther (Editors), 8th European Vertebrate Pest Management Conference, Berlin, Germany, 26-30 September 2011. Book of Abstracts. Julius Kühn-Institut, Bundesforschungsanstalt für Kulturpflanzen, JKI Archiv 432, 2011. 133-135



**2008-2011: no. 120 scaffold holes became selective for swifts, bats and small wildlife.**  
**2013: 18 pairs of swifts.**  
**2017: ≈ 40 pairs of swifts.**



## HINTS FOR NEW BUILDINGS

**A newly built dovecote  
(with swift nests)**

**Predieri Family, Cavriago,  
province of Reggio Emilia**







## HINTS FOR NEW BUILDINGS

**An attic in an eclectic-styled tower, Milan**

**Renovated and fitted with 47 nests, 2009**

**design: Andrea Micheli  
hints: Mauro Ferri**

**2017: huge colony of swifts**



1991-2010



## Visits of friends and swift lovers from Italy, the United Kingdom, Germany, Switzerland, Belgium and New Zealand!







# A GOOD SUBJECT FOR EDUCATIONAL ACTIVITIES ABOUT SYNANTHROPIC WILDLIFE AND BIODIVERSITY





1991-2010



## HINTS FOR EDUCATIONAL ACTIVITIES ABOUT HISTORICAL BUILDINGS



**design & realization: M. Ferri, G. Dugoni, 2000**

The Common Swift Seminars - Berlin 8th - 11th April 2010 - Mauro Ferri: Fidelity to the birthplace

1991-2010



## HINTS FOR EDUCATIONAL ACTIVITIES ABOUT BUILDINGS AND SWIFTS



design & realization: M. Ferri, A. Spampanato, F. Minelli, 2000

The Common Swift Seminars - Berlin 8th - 11th April 2010 - Mauro Ferri: Fidelity to the birthplace



**MODERN  
MATERIALS AND  
TECHNOLOGY  
ARE WELCOME**

**BUT  
IN ITALY IT WOULD BE  
BETTER ALSO TO  
RESTORE HUNDREDS OF  
OLD BIRD TOWERS  
AS A MODEL OF THE MOST  
CONVENIENT AND SAFE  
ARTIFICIAL NESTS FOR  
SWIFTS**

**SINCE 600 YEARS  
THEY WORK GREATLY**



[www.festivaldeirondoni.info](http://www.festivaldeirondoni.info)

[www.monumentivivi.it](http://www.monumentivivi.it)

**Thank you  
for your  
attention!**

