



FIFTH INTERNATIONAL SWIFT CONFERENCE

RUTH DANIEL RESIDENCE, TEL AVIV-JAFFA, ISRAEL

March 11th - 16th 2018



ARTIFICIAL SWIFT NESTS FROM THE MIDDLE AGES UP TO MODERN TIMES

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TQRCG

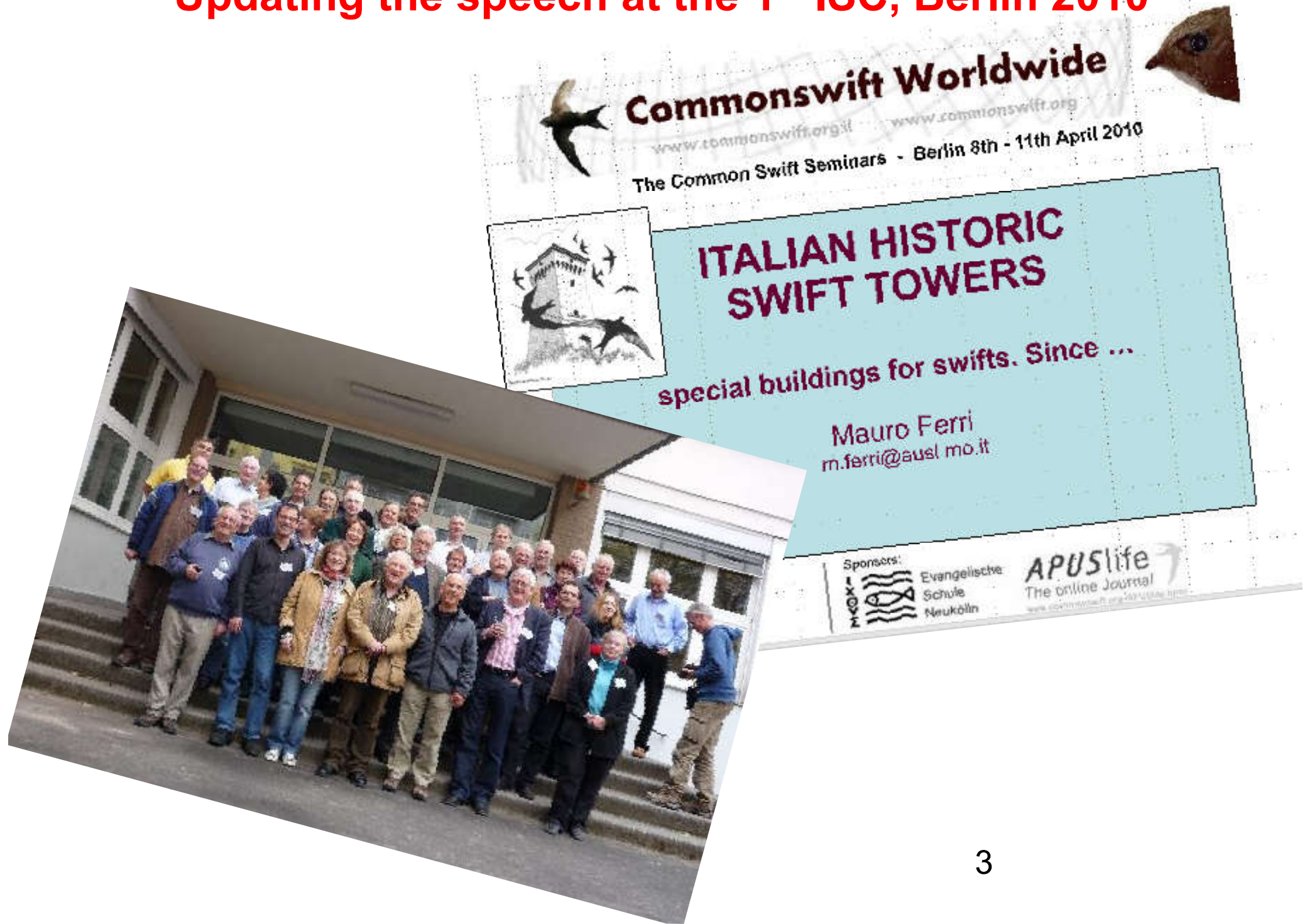
disegno di Roberta Becchi



Summary

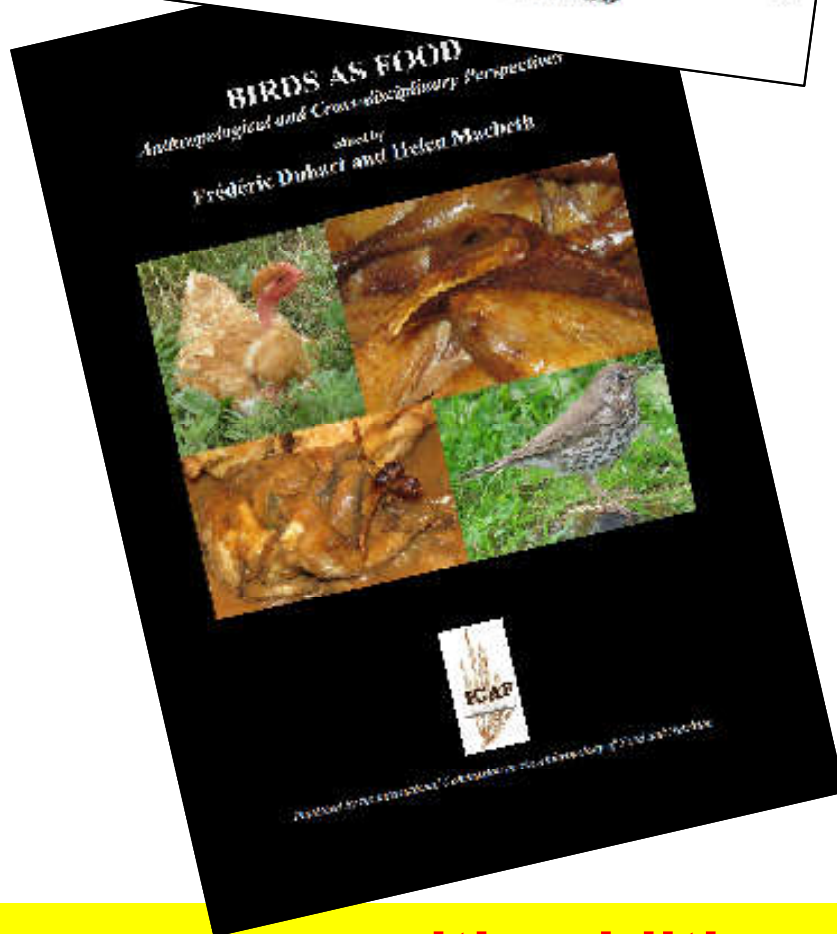
Since the Middle Ages, in a large area of Italy “**swift towers**” (*torri rondonare*) were built. They were set in **dovecotes**, **belfries**, **churches** and **houses** (Ferri 2014), and hosted dozens or even hundreds of artificial nests. The first examples of swift towers are found in the dovecotes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

Updating the speech at the 1st ISC, Berlin 2010



Recently updated by M. Ferri 2018

CHAPTER 11
ANCIENT ARTIFICIAL NESTS
TO ATTRACT SWIFTS, SPARROWS AND STARLINGS
TO EXPLOIT THEM AS FOOD
by Mauro Ferri



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.

**with additional material for swift fans
here at the 5th 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...**



tower



house tower



dovecote

not just towers...



farm dwelling



barn



roof dovecote



palace



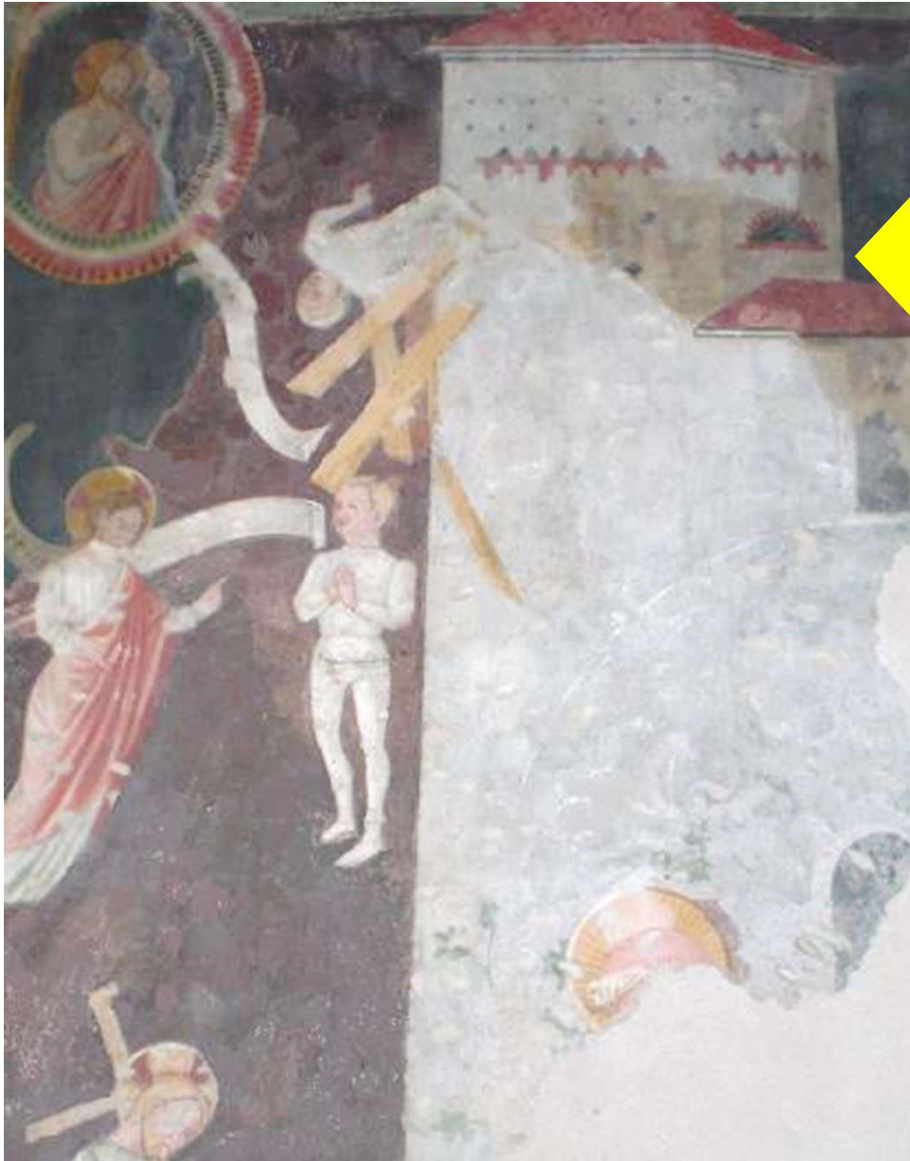
belfry



church



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

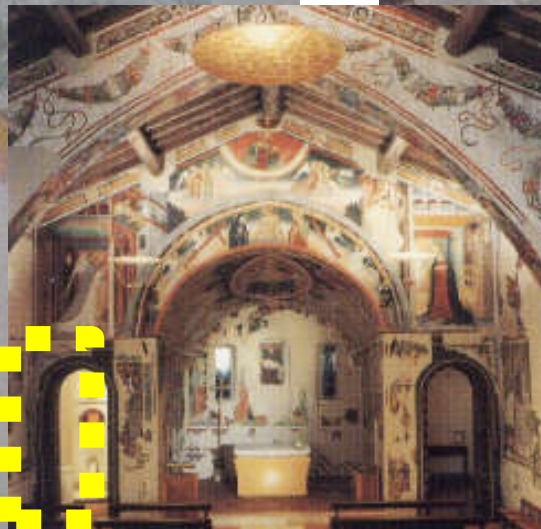


Toresela, Nago-Torbole, TN

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

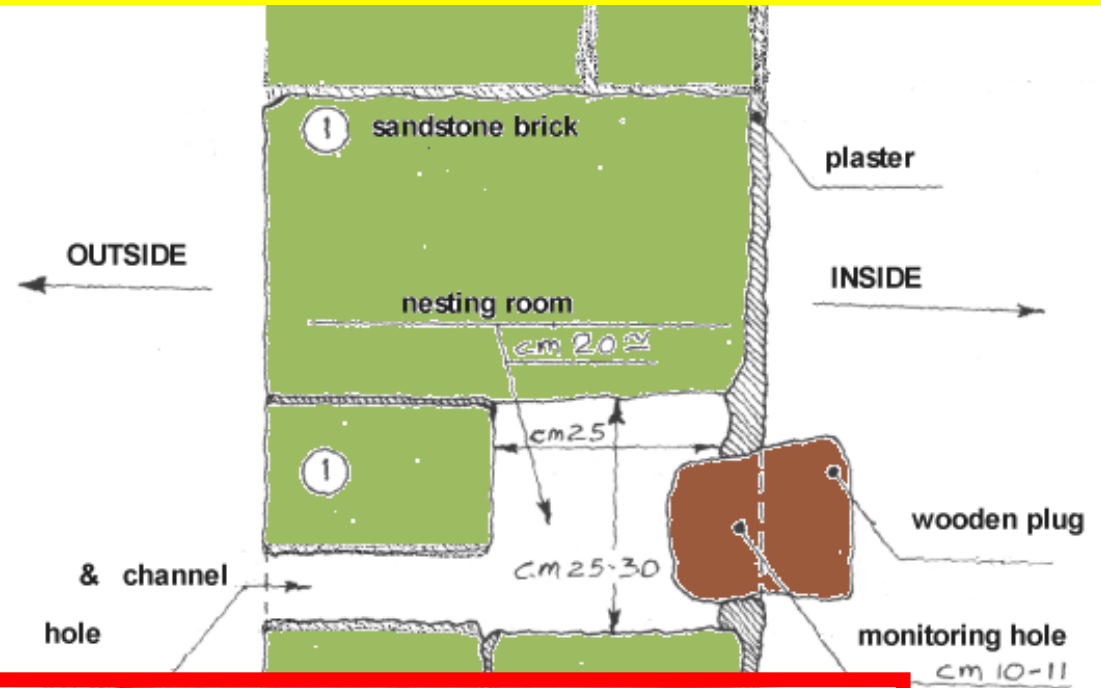
MORNICO AL SERIO (BERGAMO, LOMBARDY, ITALY)



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

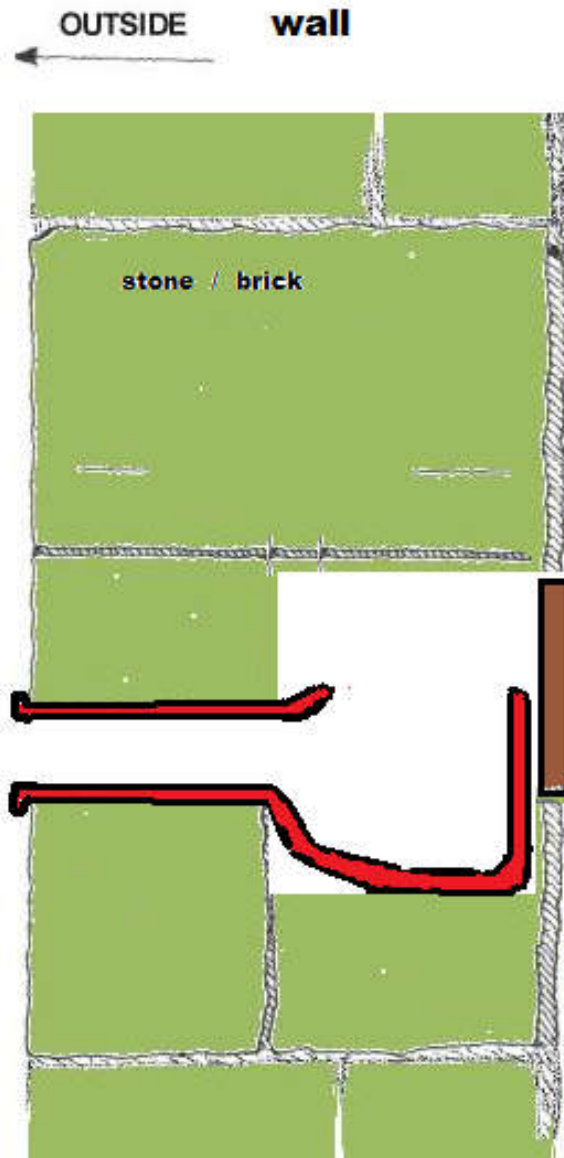
Type A: NESTING CELLS EMBEDDED IN WALLS

old structures in thick walls





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



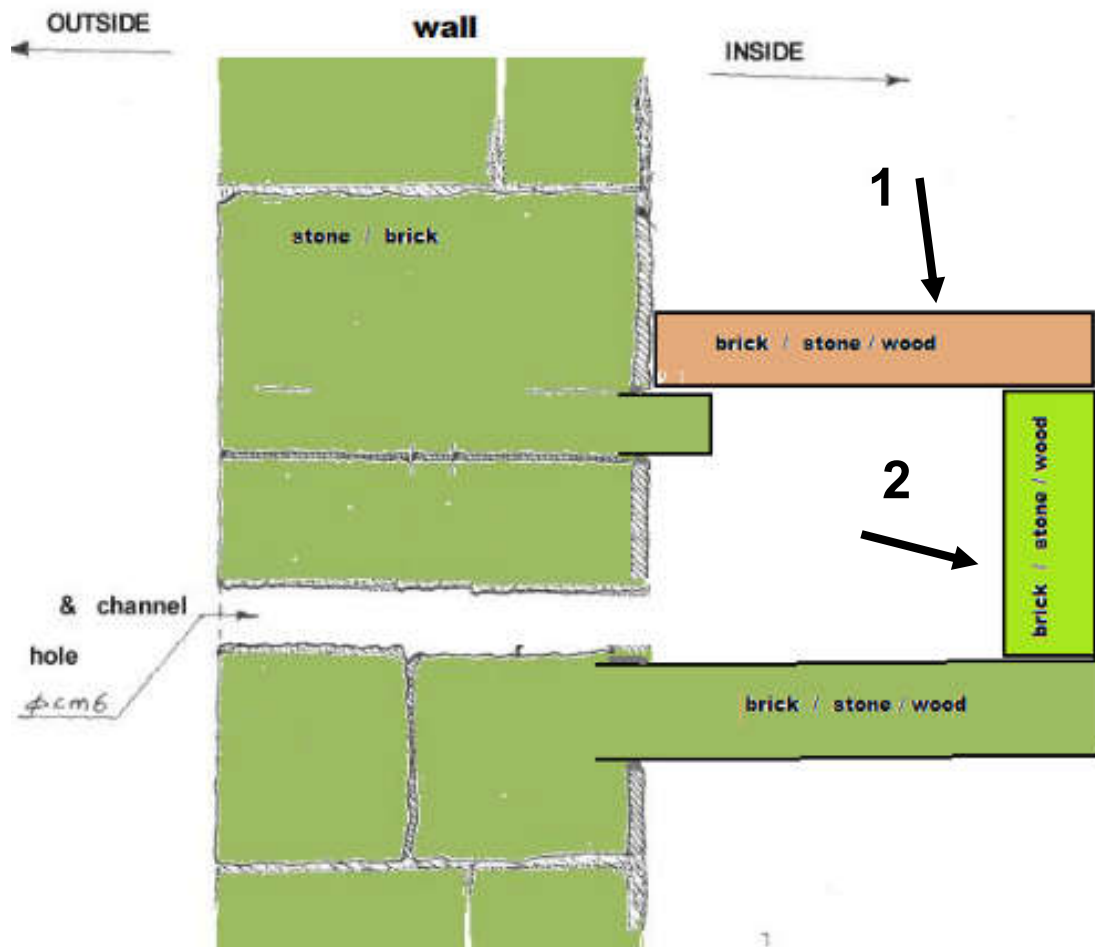
In some cases: hybrid with only the bottleneck, to ensure regular holes, often marked outside in color, often red. Inside: built-in-the-wall or on the scaffold.

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

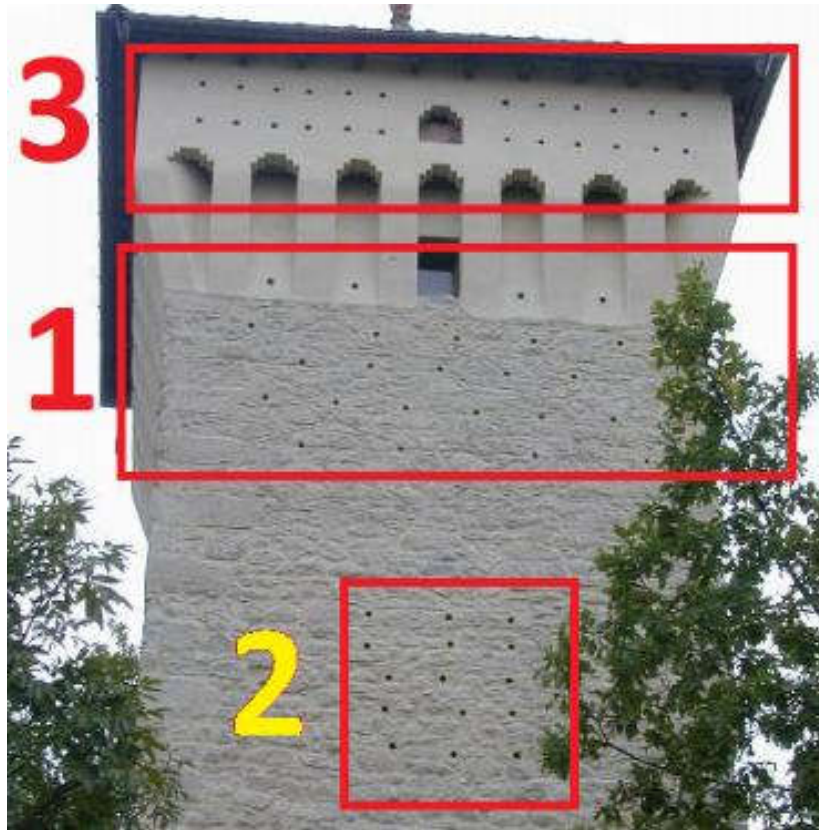
Cost in building and upgrading: very high

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.



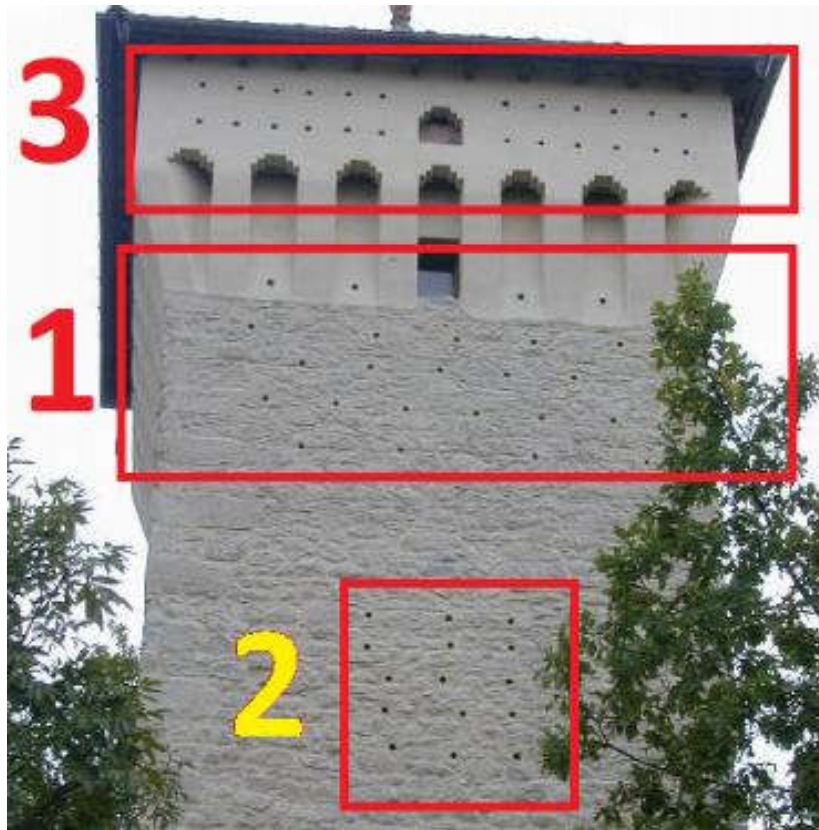
≈ 250 nests
on three levels
XVI-XIX centuries



≈ 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)



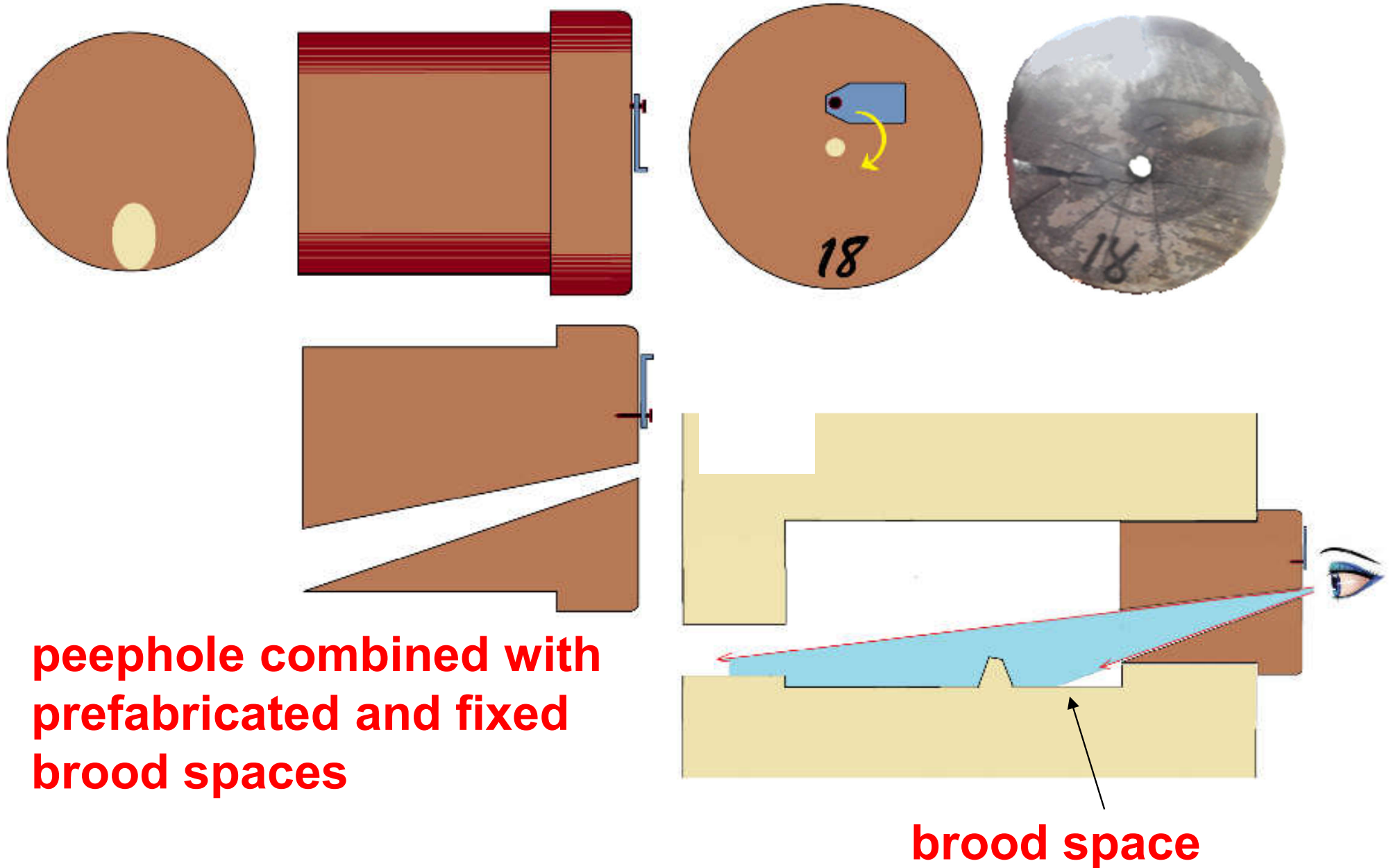
**SHOWN
FOR THE FIRST TIME
TO THE PUBLIC**

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.



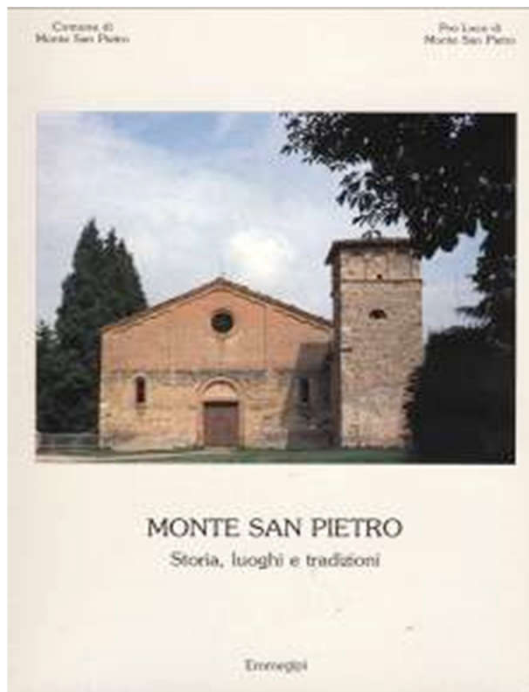
Ca' Caula, Zocca (MO): 150 cells (a very rational setting)





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





*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...?

Monte S. Pietro, BO	←		
Frassinoro, MO			
Montefiorino, MO	←		
Palagiano, MO			
Prignano s/S, MO			
Guiglia, MO			
Marano, MO	←		
Montese, MO			
Zocca, MO			
<p>9 municipalities in the Apennines of Emilia-Romagna (Northern Italy)</p> <p>n. 3 cluster (yellow, gray) distance 60 km a.c.f. from the farthest part of the territory.</p>			



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

Municipalities with references for census of historical buildings (Municipality or Province)	km ²	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	600.9	112-1131	1981-1988	747	77	10.3 27

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

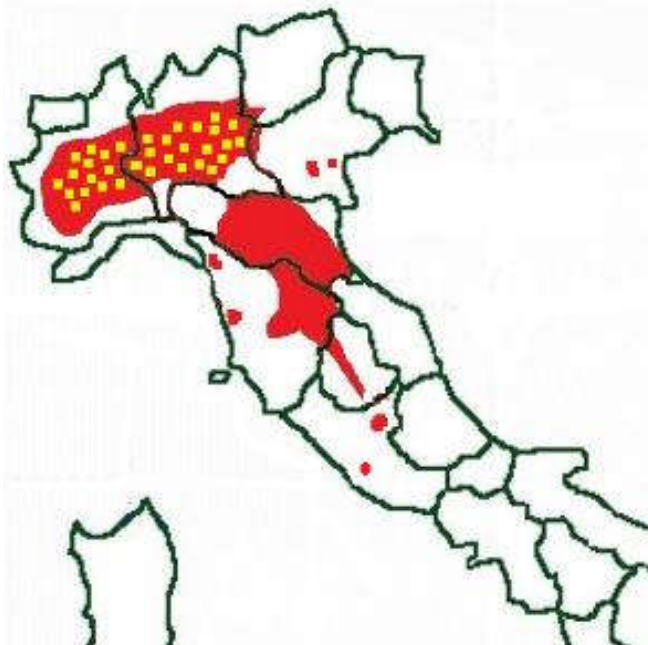
A panoramic view from the hatch of a Historical Swift Tower



five HSTs in less than 2 km²



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



SPARROW TOWERS



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”**



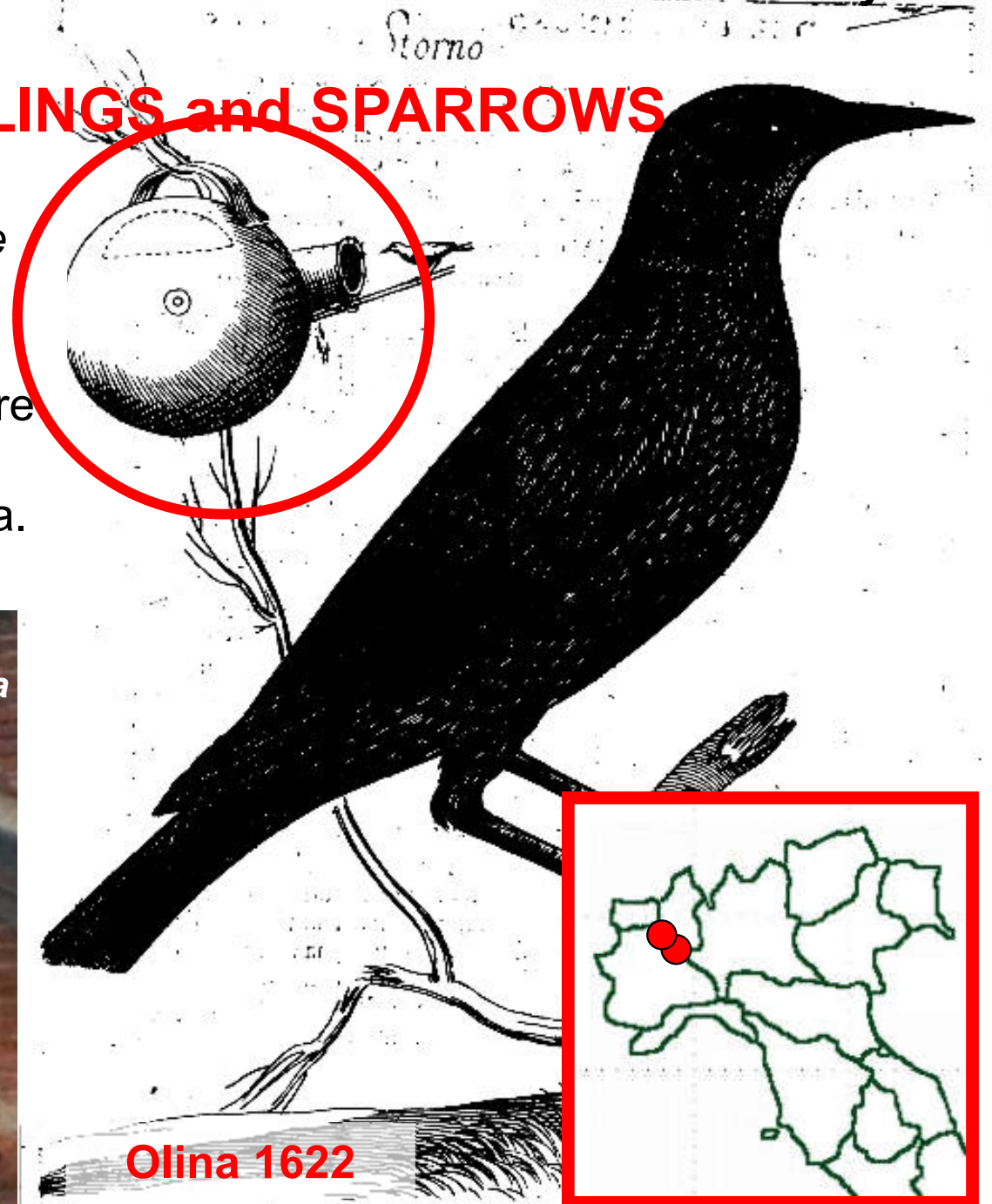
Terracotta bird pots in Italy very similar to those documented for starlings and sparrows in the Netherlands, Belgium and northern France since the early XV century (Labbé 2000).

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.

**Maybe the first image of
a bird pot**

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



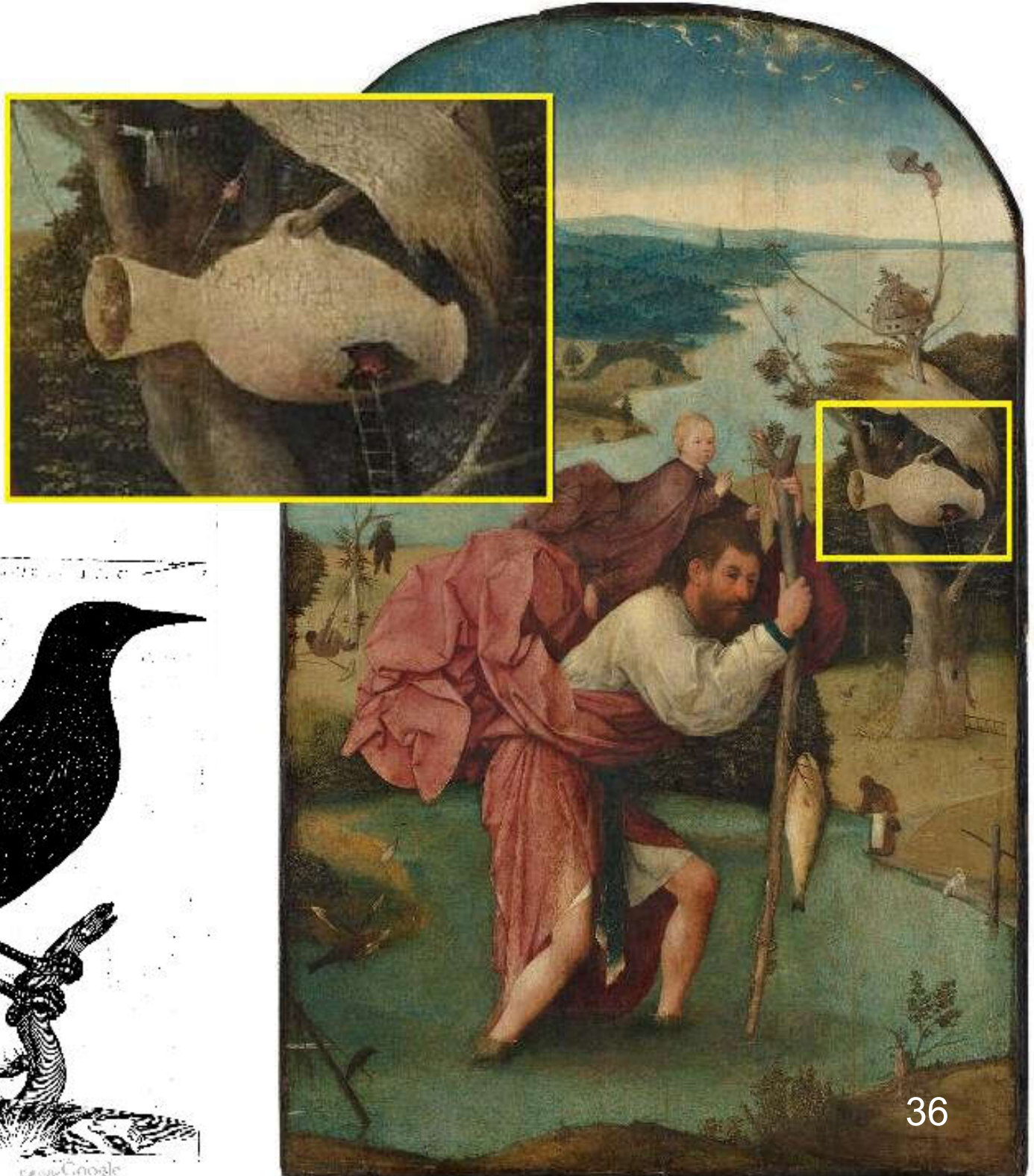
**Much earlier than those in
“Frederik van Valckenborch’s
Kirchmessfest, 1597” quoted
by Campbell and Lack (1985)**



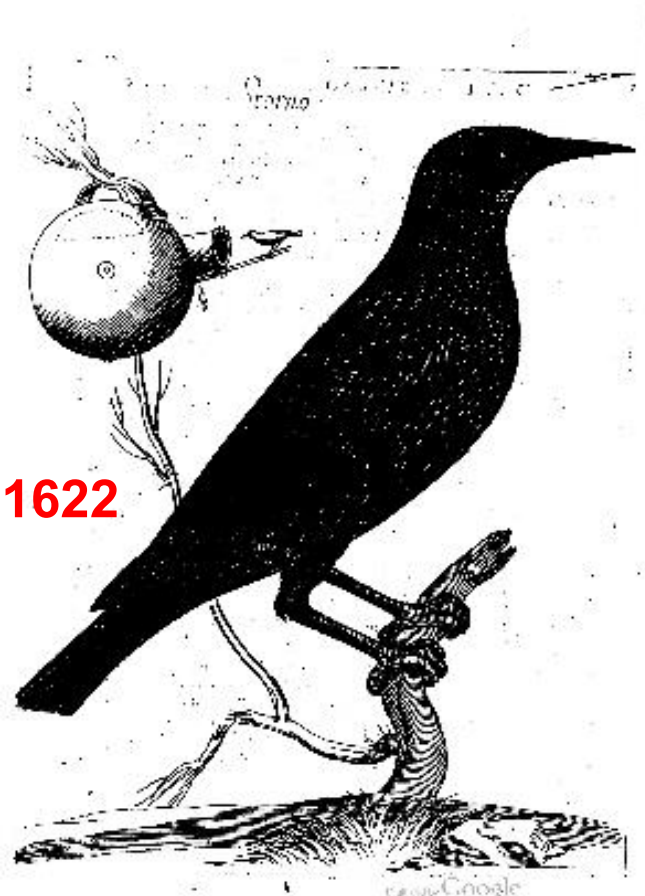
**Saint Christopher
carrying the Christ Child**
Hieronimus Bosch

1496

*Museum Boijmans Van
Beuningen, Rotterdam, NL*



Olin 1622



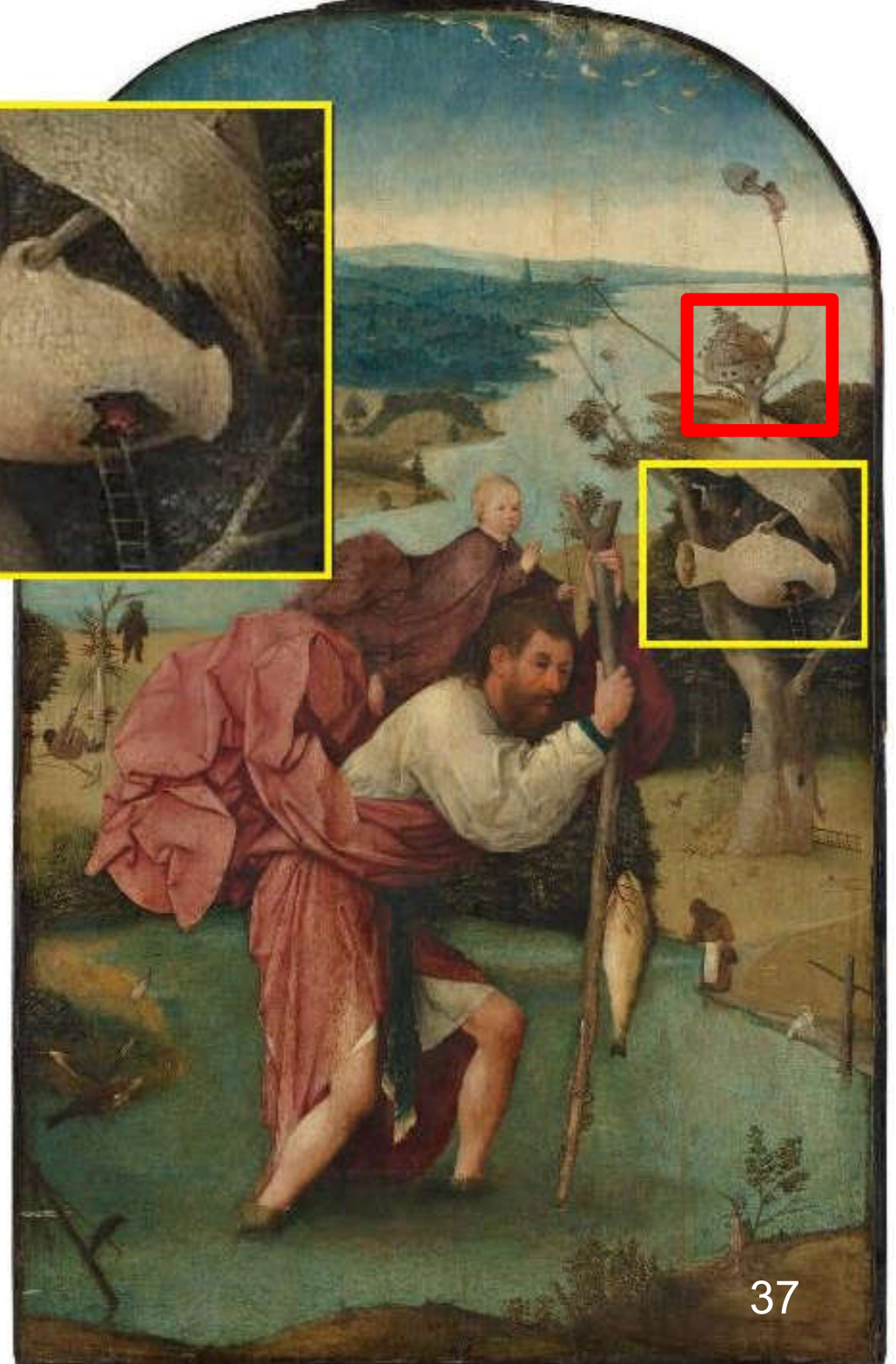
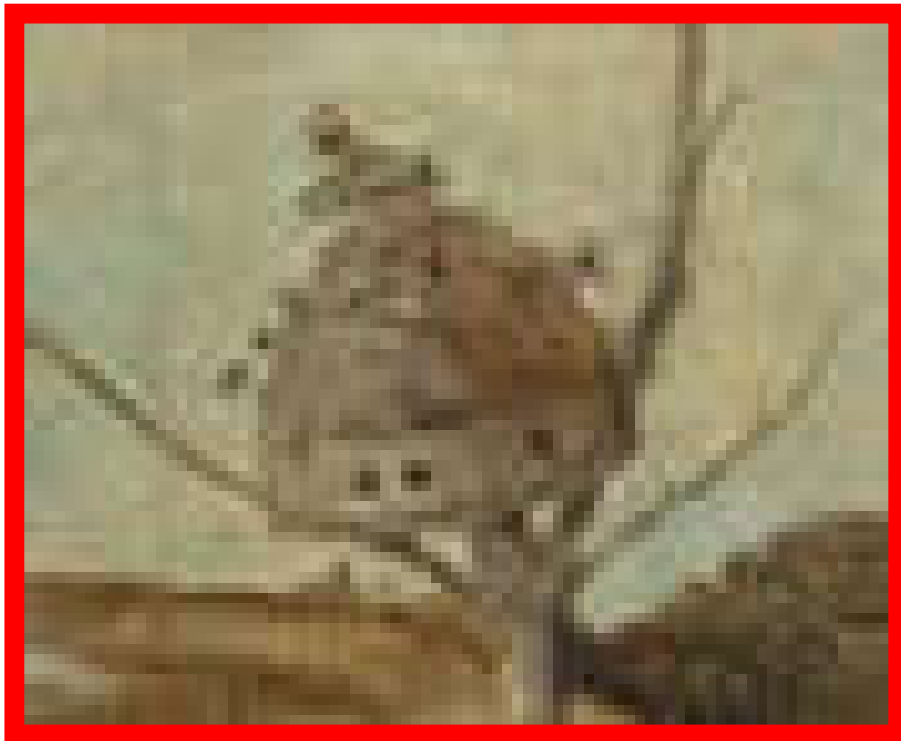
**Saint Christopher
carrying the Christ Child**
Hieronymus Bosch

1496

Museum Boijmans Van
Beuningen, Rotterdam, NL



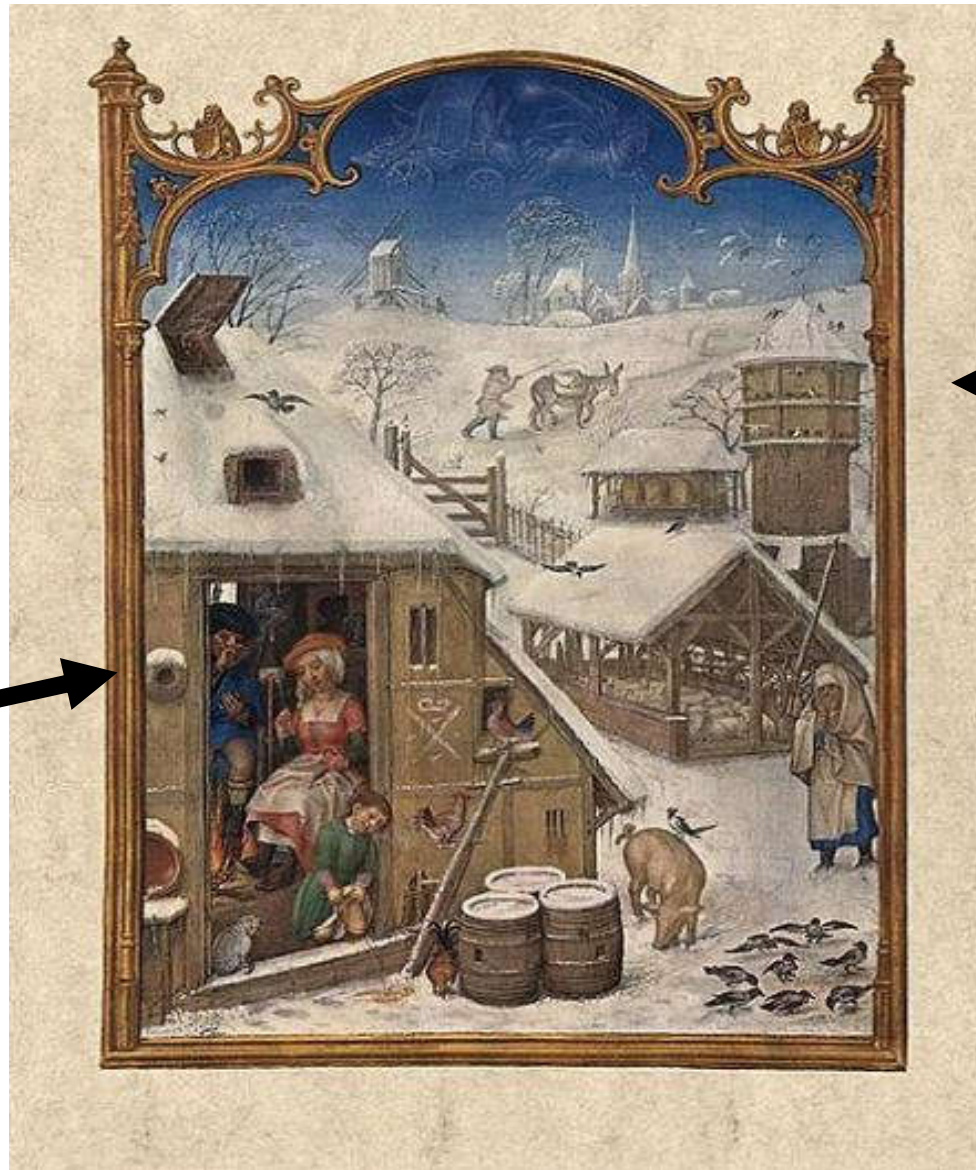
BIRD POTS & BIRD COMPOUNDS



Ca. 1501 – Breviarium Grimani, month of February

BIRD POTS & DOVECOTES WITH A TOWER FROM ANOTHER BREVIARIUM

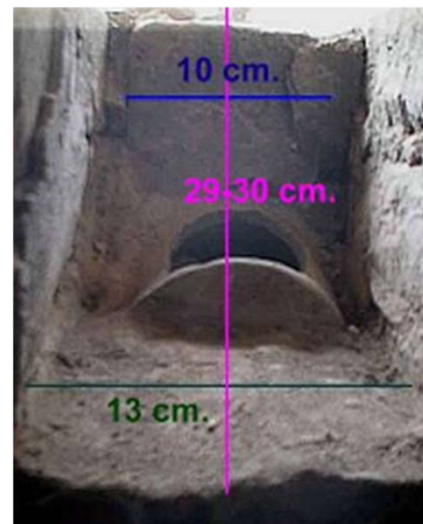
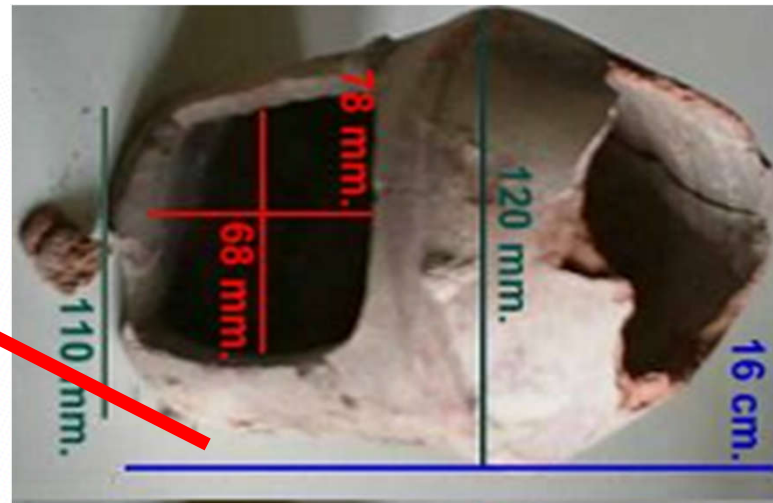
bird pot



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.



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

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

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



Burgundy



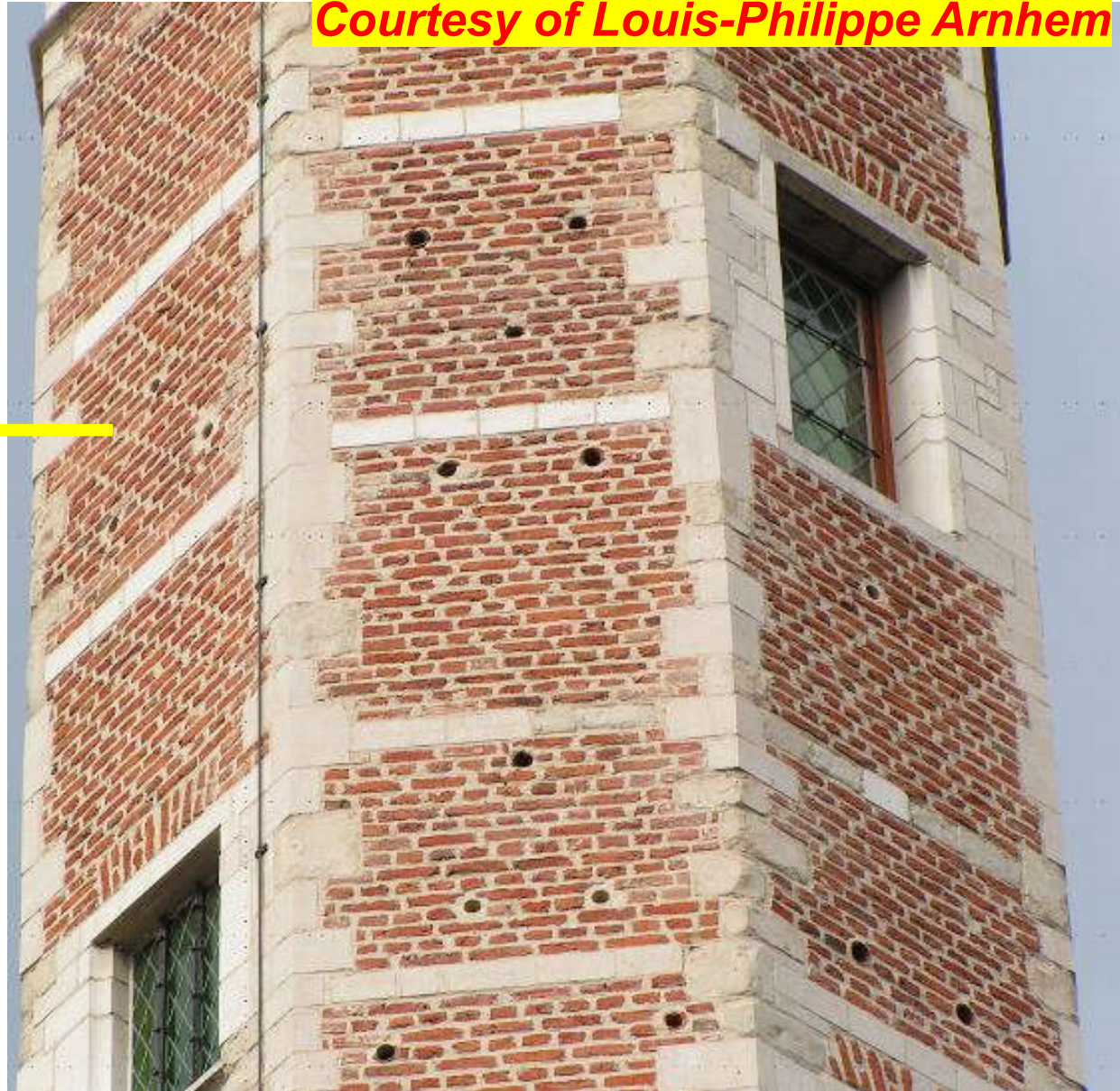
Italy

La Tagliata, Guiglia (MO)

Maybe there were ties between the Flemish countries and Italy

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

Courtesy of Louis-Philippe Arnhem



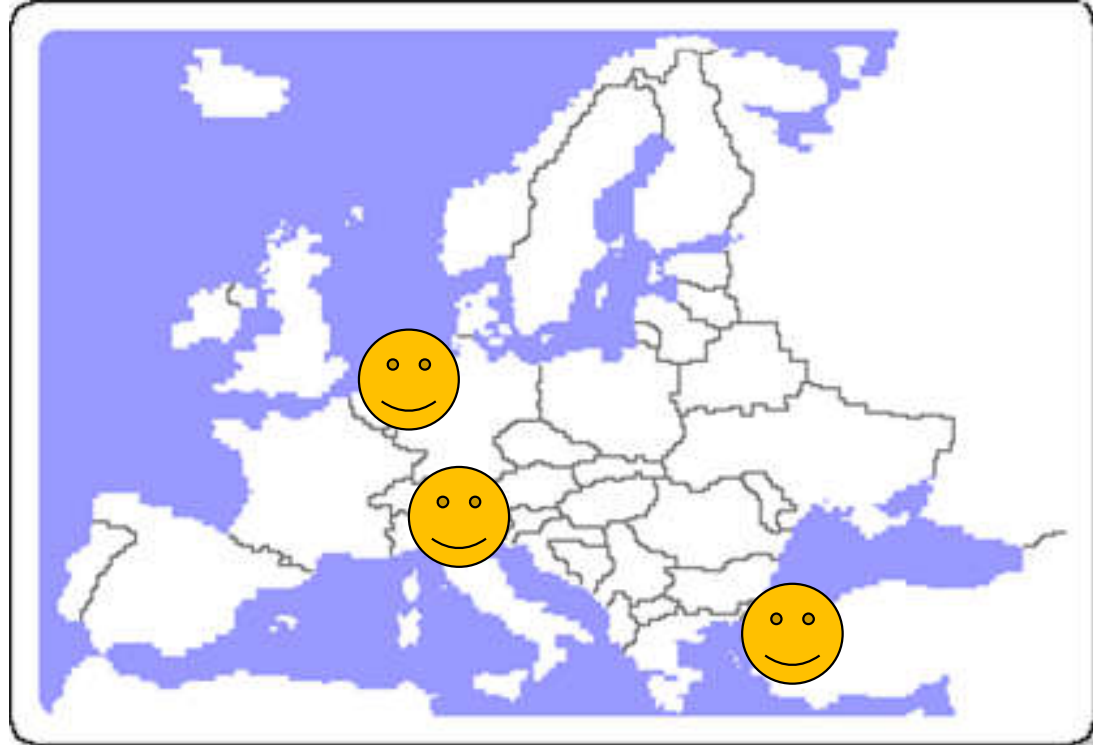
ANCIENT ARTIFICIAL NESTS

AFTER

- FLEMISH COUNTRIES AND BURGUNDY
- ITALY

A THIRD AREA OF INTEREST

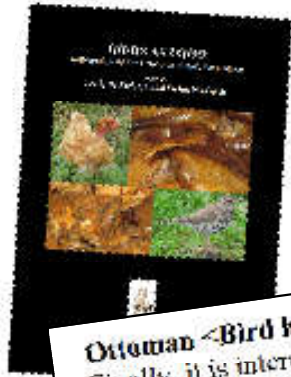
- TURKEY



OTTOMAN BIRD HOUSES

KUŞ KÖŞKLERİ KUŞLARIN SARAYLARI

<http://www.hurriyet.com.tr/osmanli-doneminin-kus-evleri-yok-oluyor-13746034>



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 201
and
Akay and Yorgancı 201

Photograph © Mauro Ferri



OTTOMAN BIRD HOUSES
KUŞ KÖŞKLERİ **KUŞLARIN SARAYLARI**

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

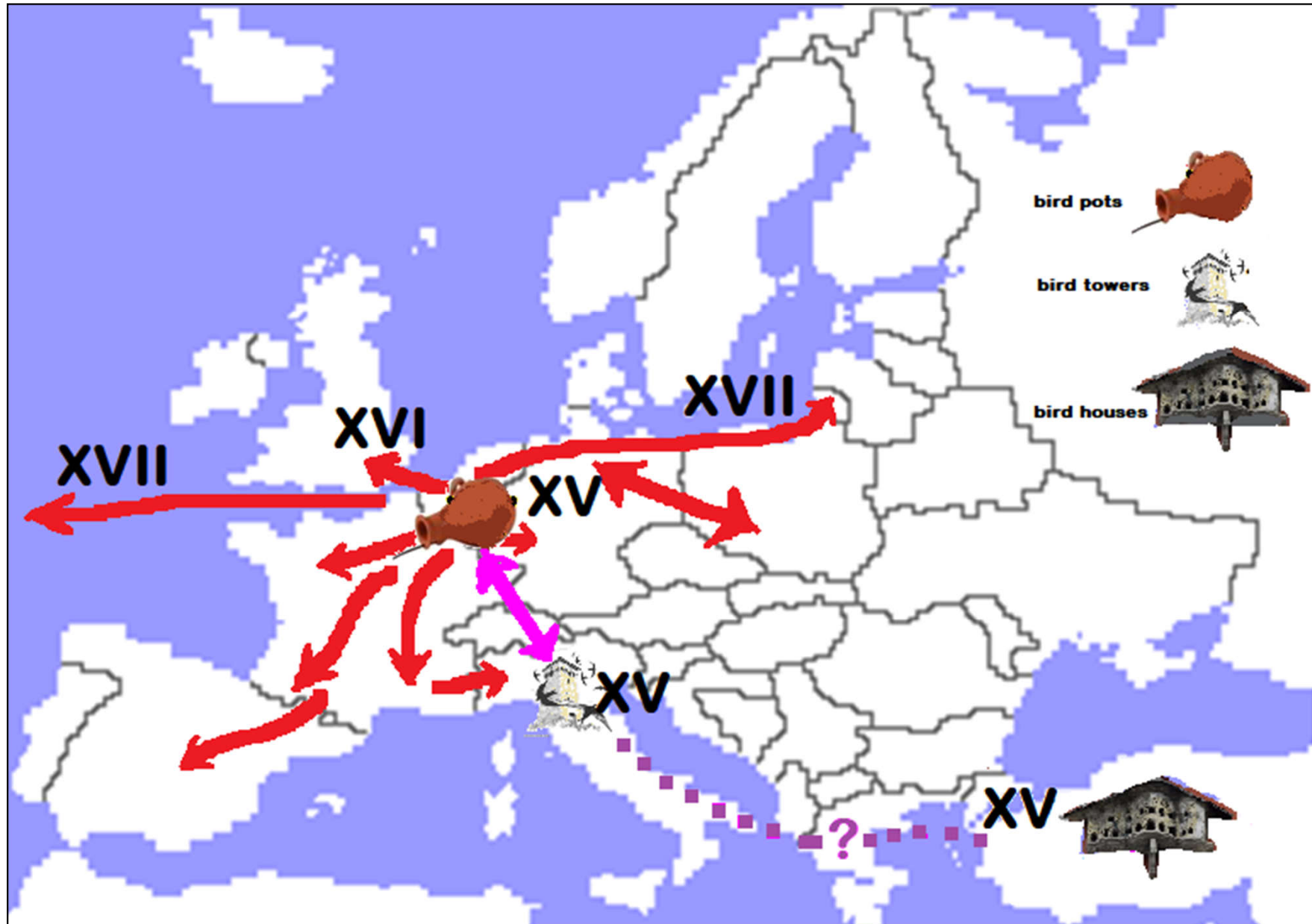


XV-XIX centuries
for devotional and compassionate
purposes



Images from webpages talking about **KUŞ KÖŞKLERİ**

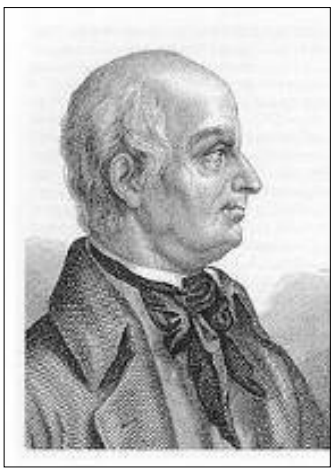
Perhaps the regular ties between Italy and northern Europe allowed the exchange of techniques for enriching the buildings with artificial nests, as it probably happened in Ottoman areas in the same period. Here, religious buildings hosted decorated nests for small birds (swifts, swallows?), which were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

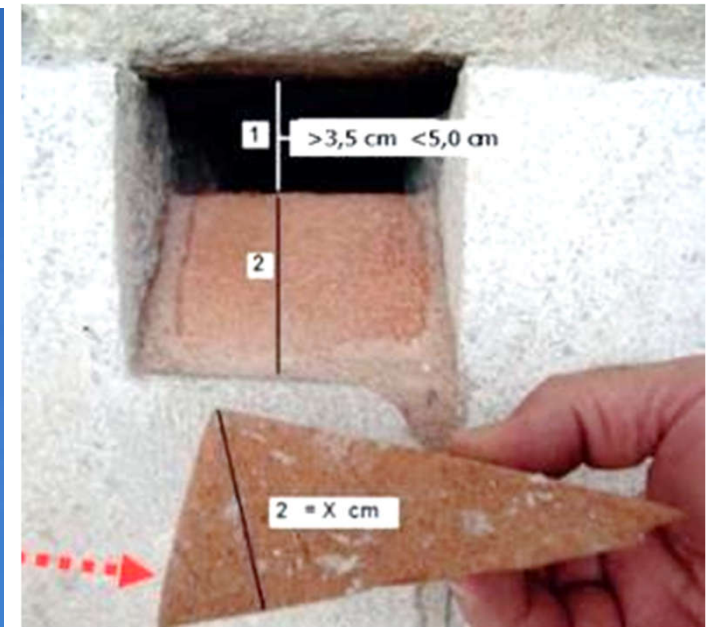




INSPIRING A **HUMANE** CONTROL OF URBAN PIGEONS WITH A NEW DESIGN FOR SCAFFOLD HOLES, FRIENDLY FOR SWIFTS AND BATS

http://www.festivaldeirondoni.info/documenti_scaricabili.html

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, Bundesforschungsinstitut 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

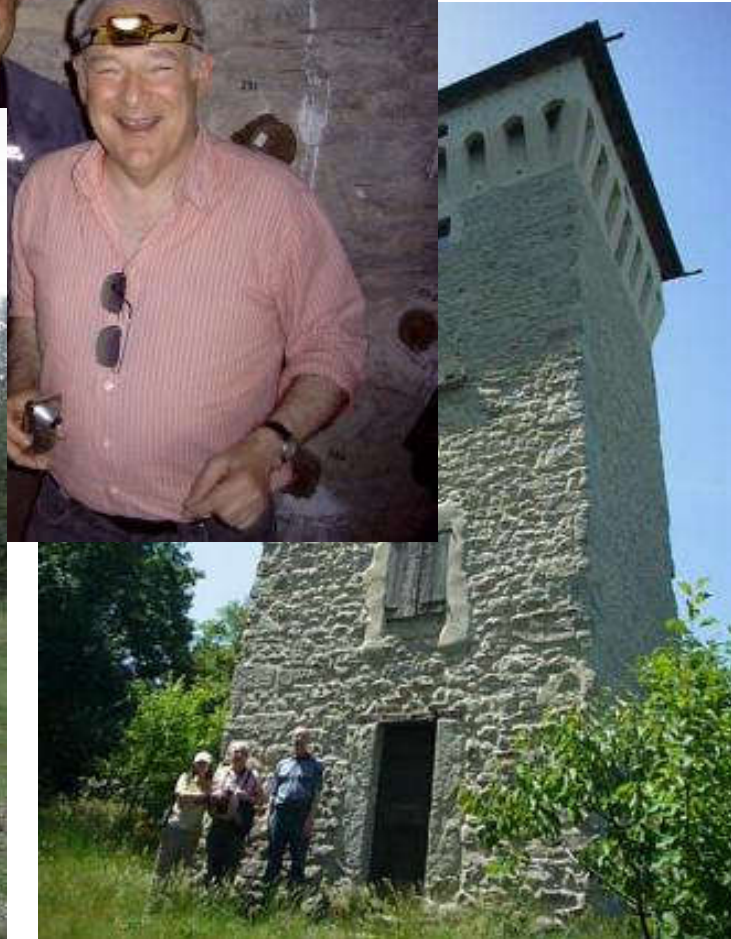
2017: huge colony of swifts



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





HINTS FOR EDUCATIONAL ACTIVITIES ABOUT HISTORICAL BUILDINGS

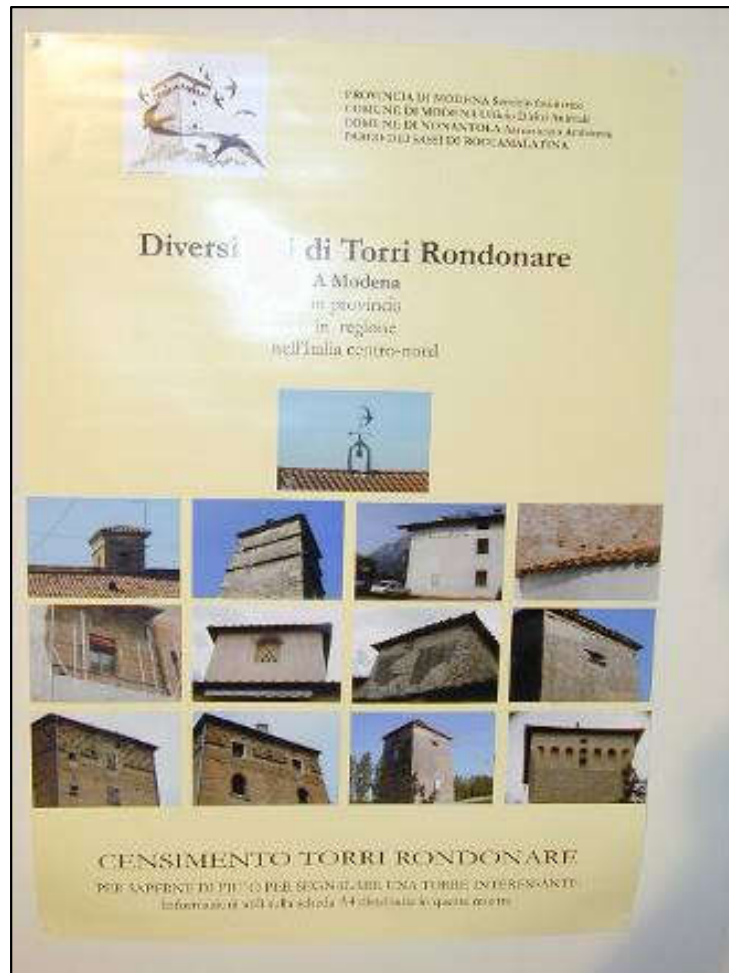


design & realization: M. Ferri, G. Dugoni, 2000

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



HINTS FOR EDUCATIONAL ACTIVITIES ABOUT BUILDINGS AND SWIFTS



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



**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**

**FROM
AT LEAST 600 YEARS**

**Thank you
for your
attention!**

