Compostela

¡Rehabilita con enerxía!

Conferencia 1.1.

“O catálogo de protección das Arquitecturas e elementos construtivos da cidade histórica de Santiago”

Adrián Martín Prieto. Arquitecto en Aestudio Arquitectura

www.aestudio.es

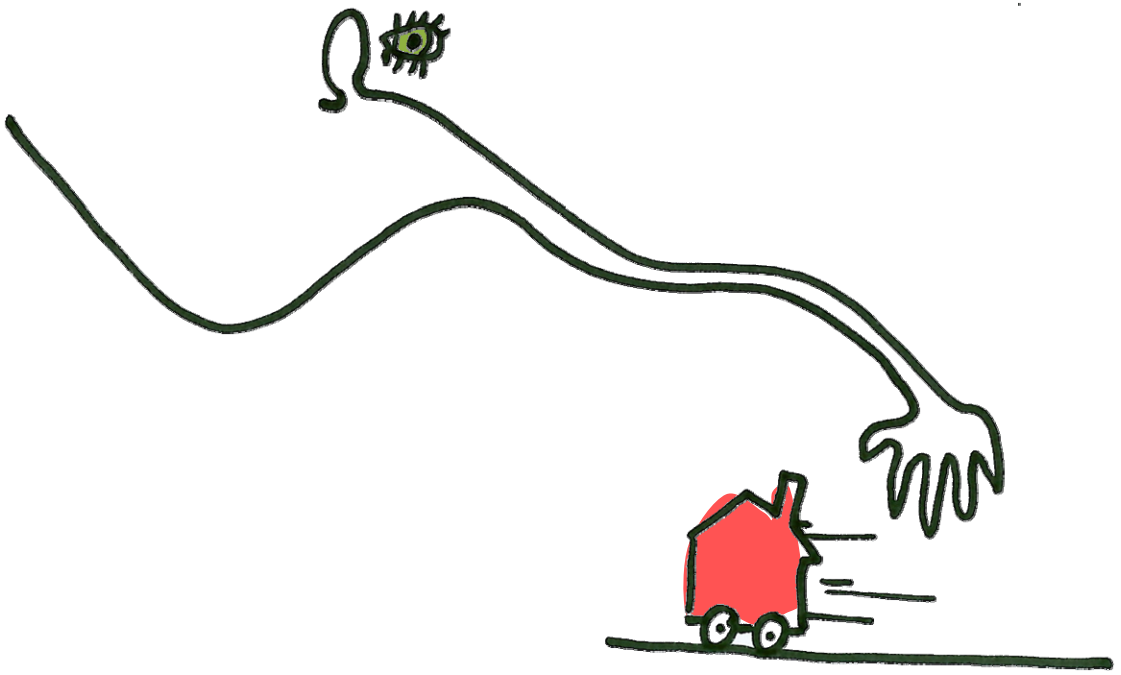
2013 Premio “Mellor Obra Novel nos XV Premios do COAG” pola Reforma da Facultade de Dereito da Universidade da Coruña

2008-10 Arquitecto en prácticas na Oficina Técnica do Consorcio de Santiago

2007-08 Arquitecto no Servizo de Arquitectura da Universidade da Coruña

2007 Premio Extraordinario Fin de Carreira da Xunta de Galicia

A **eficiencia enerxética** é o factor clave á hora de determinar o grao de habitabilidade e sostenibilidade da cidade histórica.

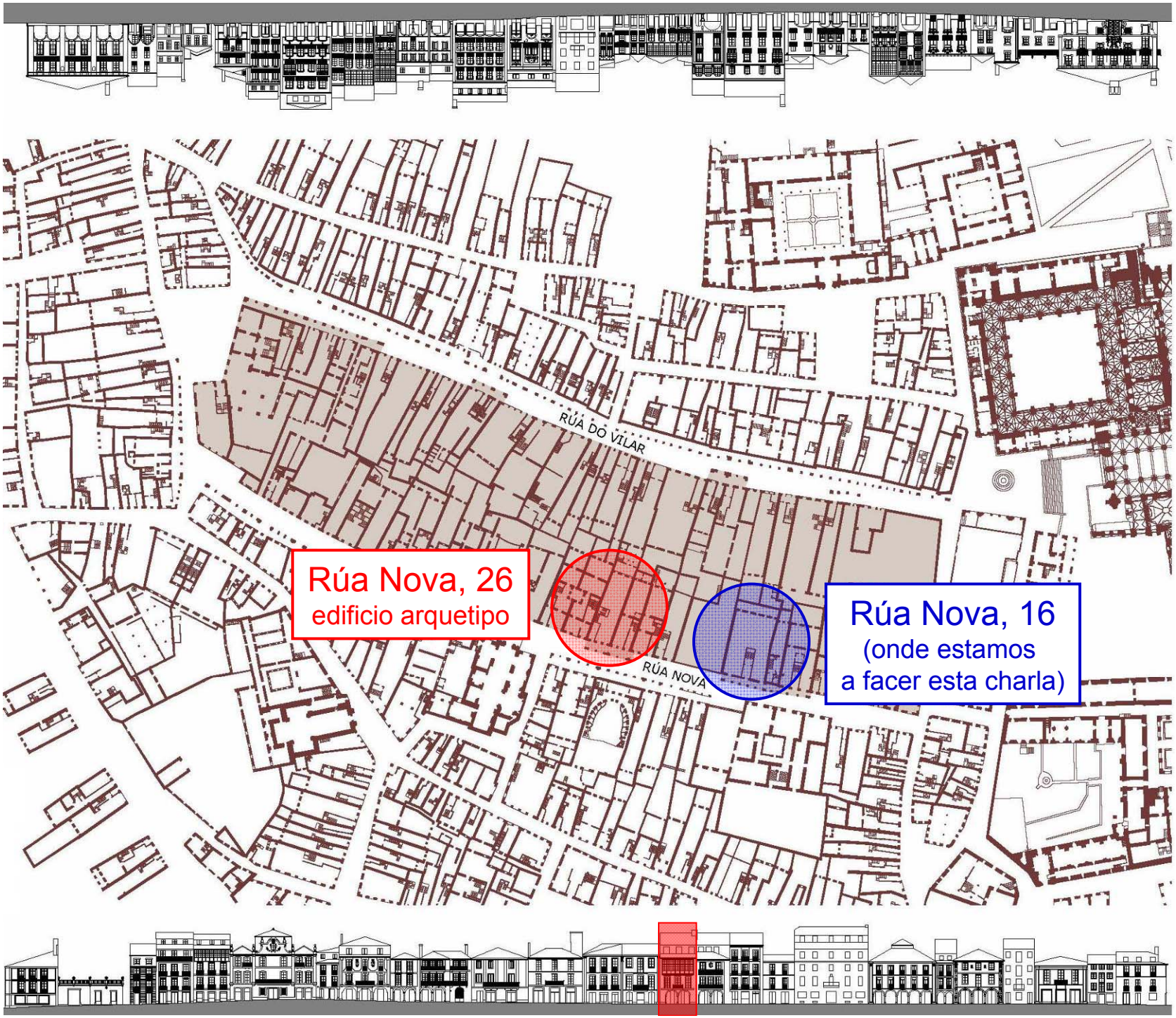


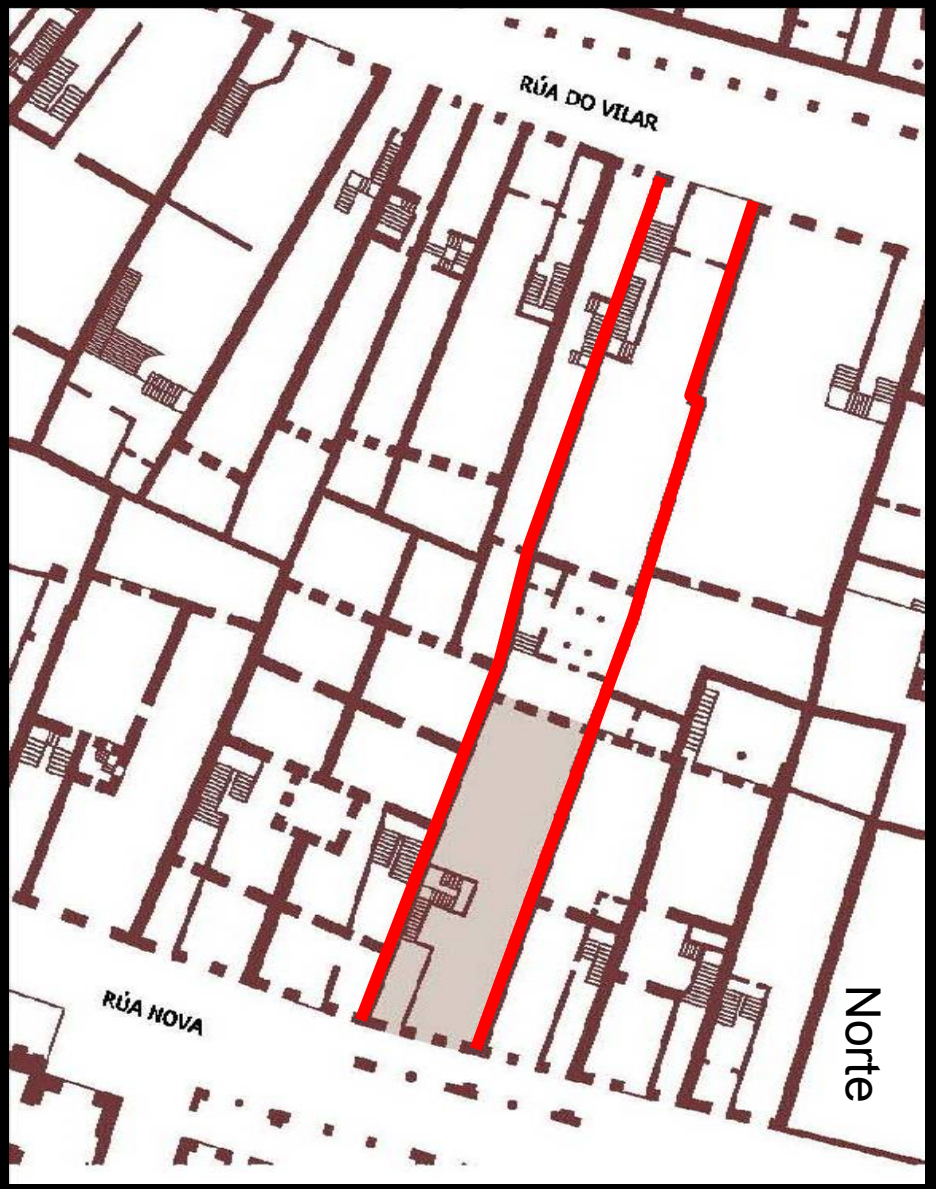
criterios de intervención sobre o Patrimonio de carácter ambientalista

VS

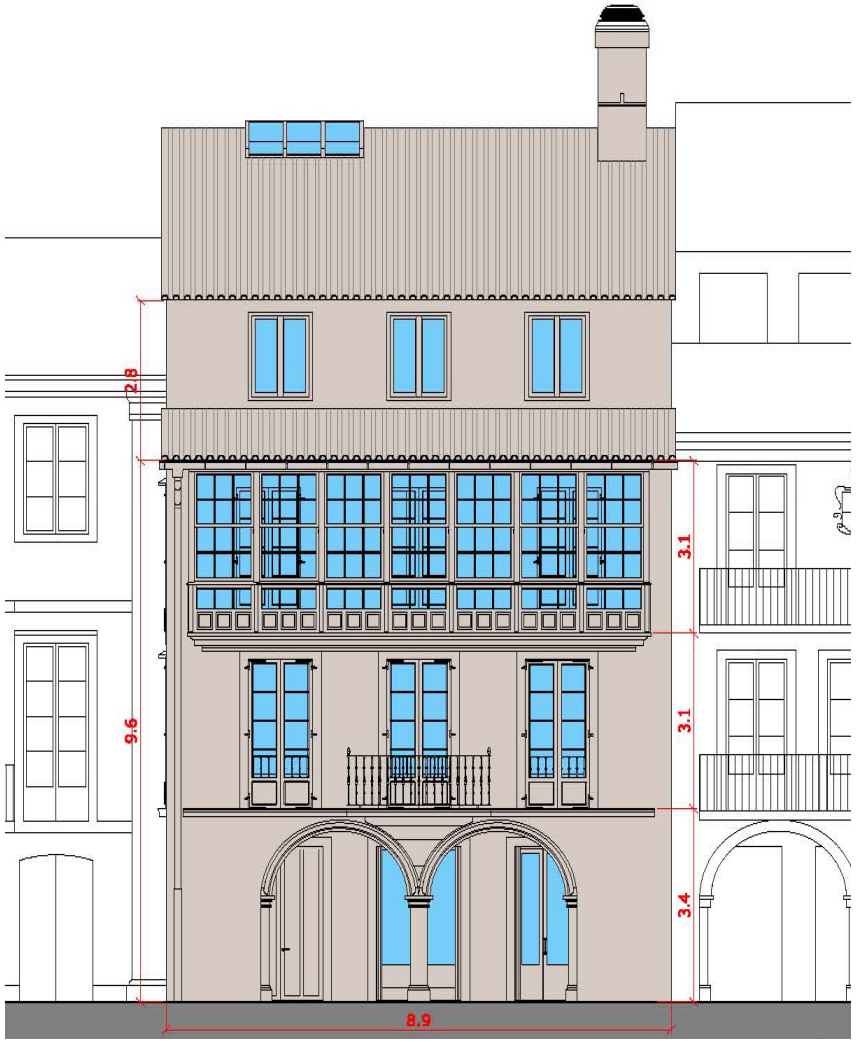
lóxica das arquitecturas preindustriais baseadas na optimización de recursos


distrito
estudiado

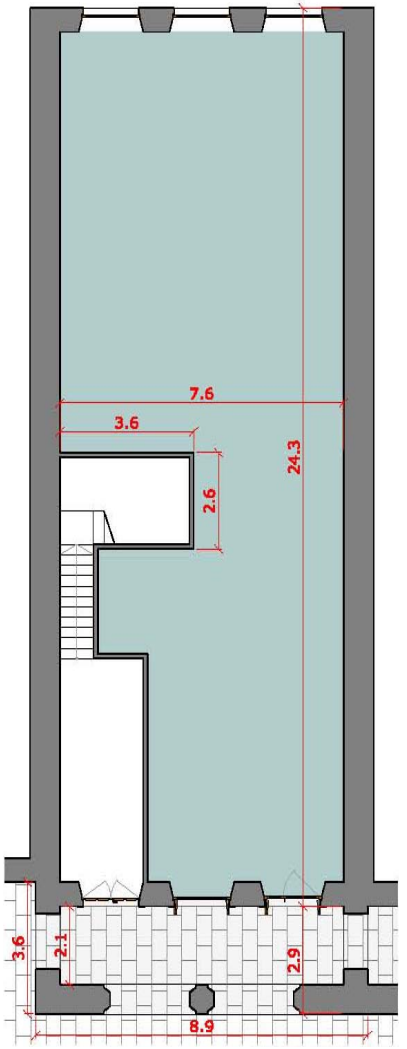

Sur
Norte
RÚA DO VILAR
RÚA NOVA
Rúa Nova, 26
edificio arquetipo
Rúa Nova, 16
(onde estamos
a facer esta charla)



ENTRE GROSOS MUROS MEDIANEIROS DE PEDRA

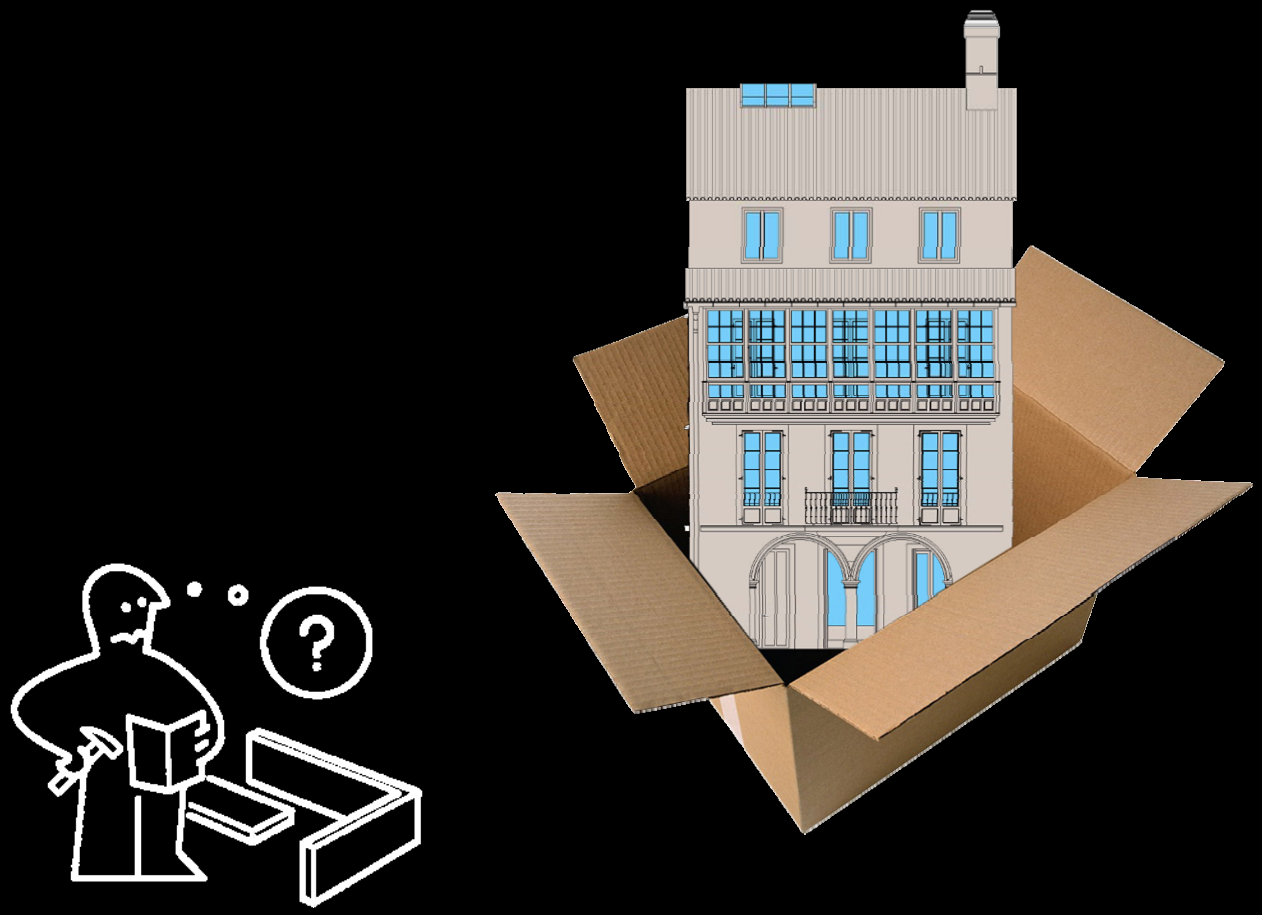


alzado



planta

RÚA NOVA, 26, EDIFICIO ARQUETIPO (máis non edificio promedio)



manual de uso e mantemento dun **edificio histórico**

01 Tellado

02 Lucernario

03 Cheminea

04 Ventá de cuberta

05 Medianeira

06 Caixa de escaleiras

07 Estrutura de forxados

08 Fachada retranqueada

09 Portal – local comercial

10 Soportal

11 Fiestra

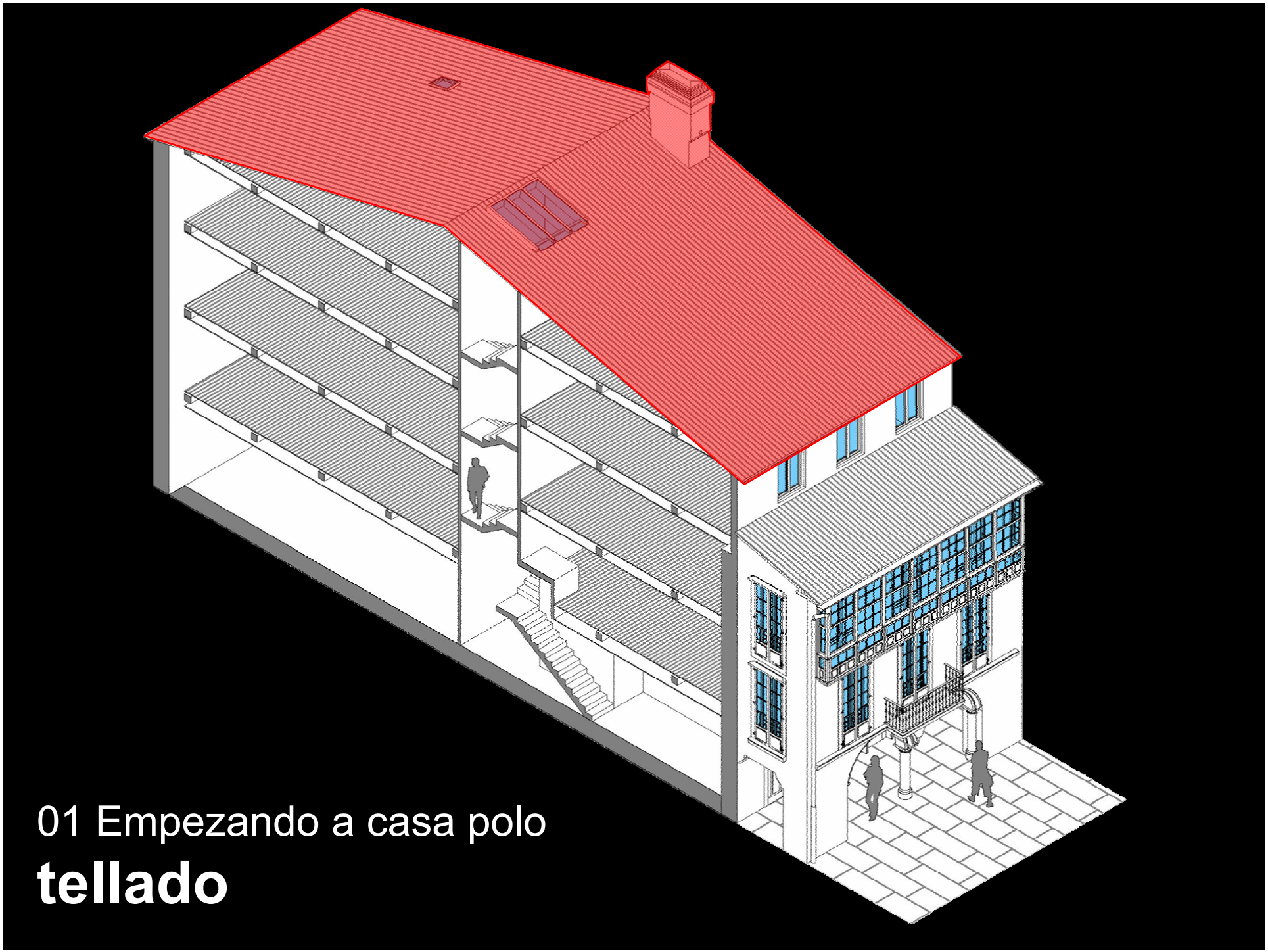
12 Galería

13 Fachada principal

14 Fachada interior

¿De que está feito un

edificio histórico?



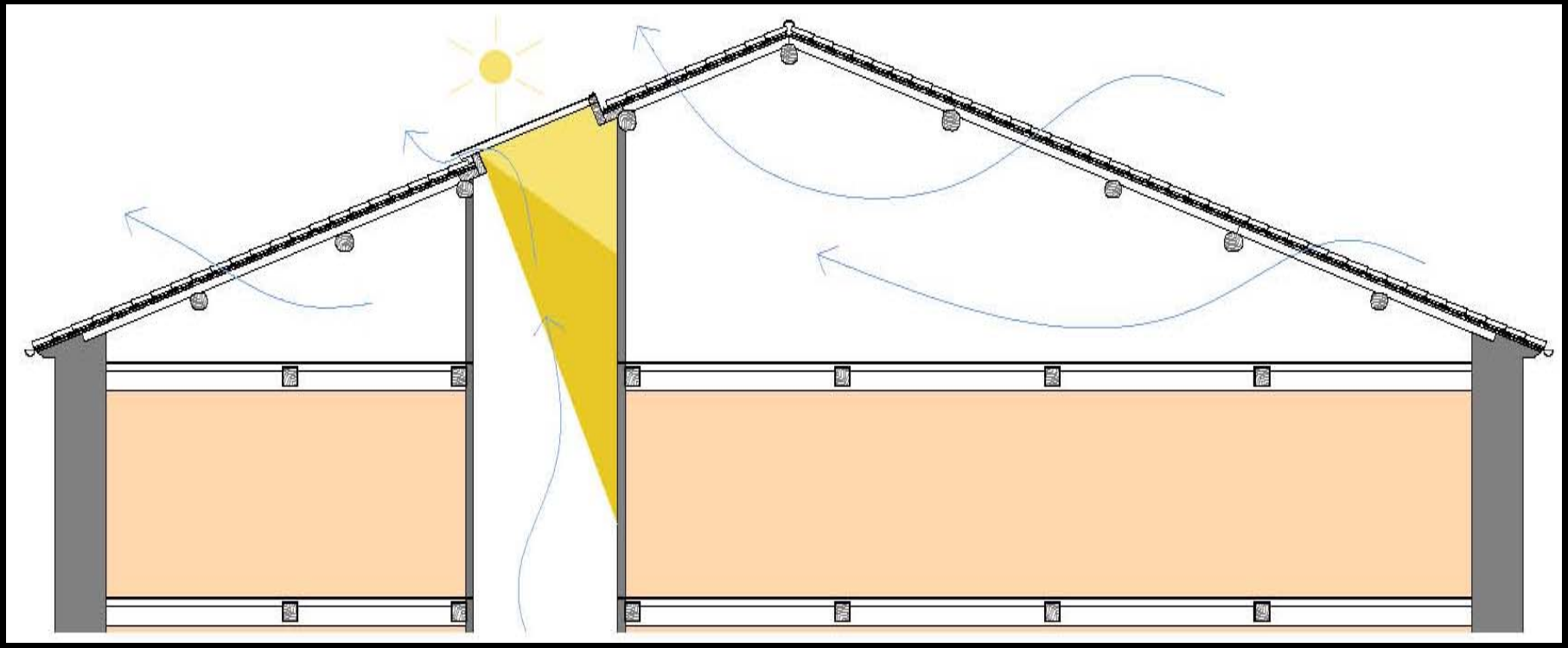
01 Empezando a casa polo

tellado

datos estatísticos da mazá analizada

Rúa Nova – Rúa do Vilar

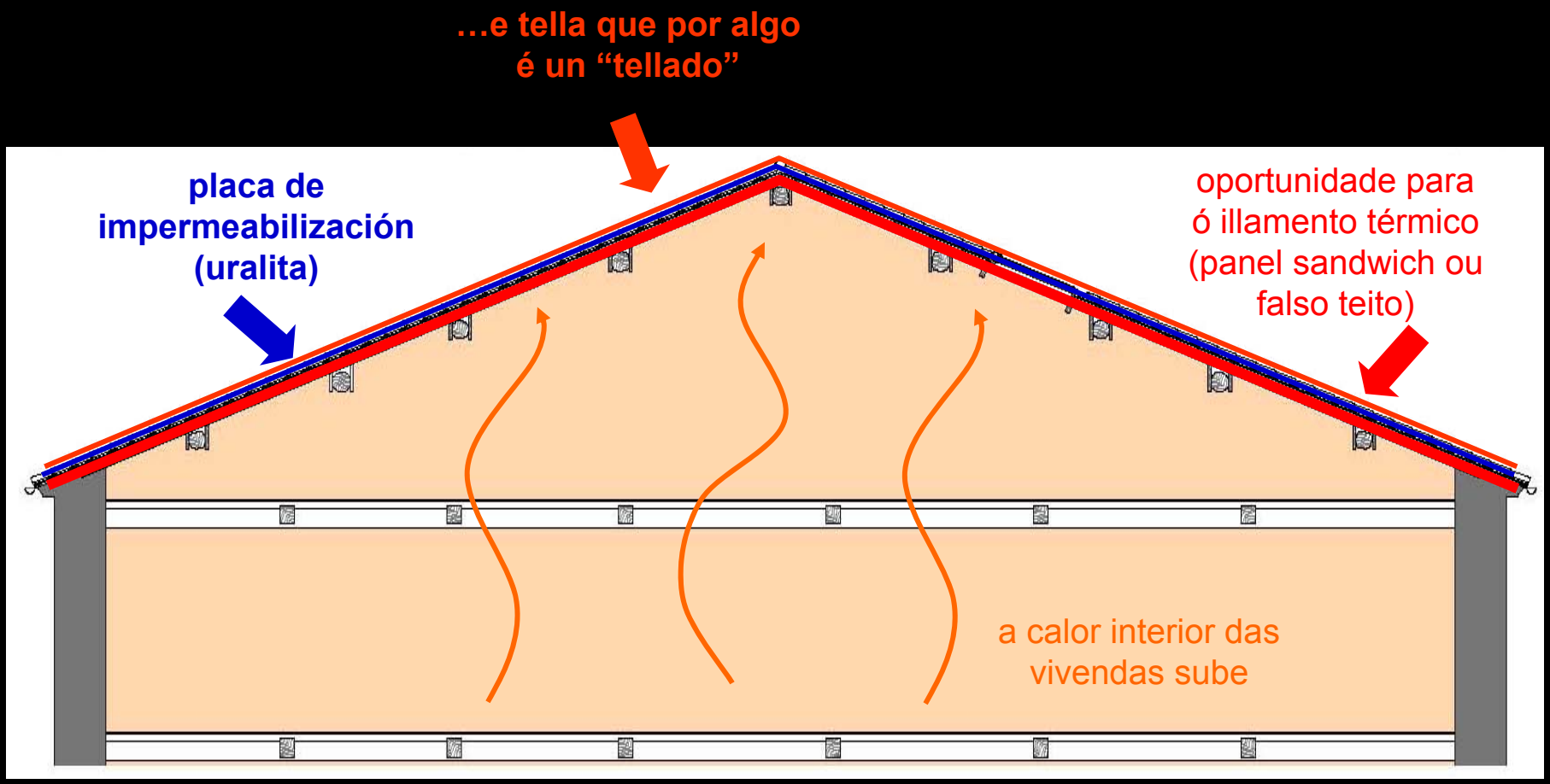
	SUPERFICIE (m2)		
	SÓLIDO	OCOS	ESTADÍSTICA (%)
fachada (sen soportais)	7012,85	1745,86	24,90
fachada (soportaL 1º plano)	724,98	410,48	56,62
fachada (soportaL 2º plano)	724,98	179,43	24,75
fachada (tras galería)	160,06	77,46	48,39
fachada (bufarda)	332,70	66,58	20,01
cuberta (velux)	14514,00	77,25	0,53
cuberta (lucernario)	14514,00	638,00	4,40
cuberta (patio int. aberto)	14514,00	366,00	2,52



Espazo non habitable baixo cuberta
(o fallado de toda a vida vaia)


espazo moi ventilado que funciona como un
amortiguador térmico

necesidade de mantemento

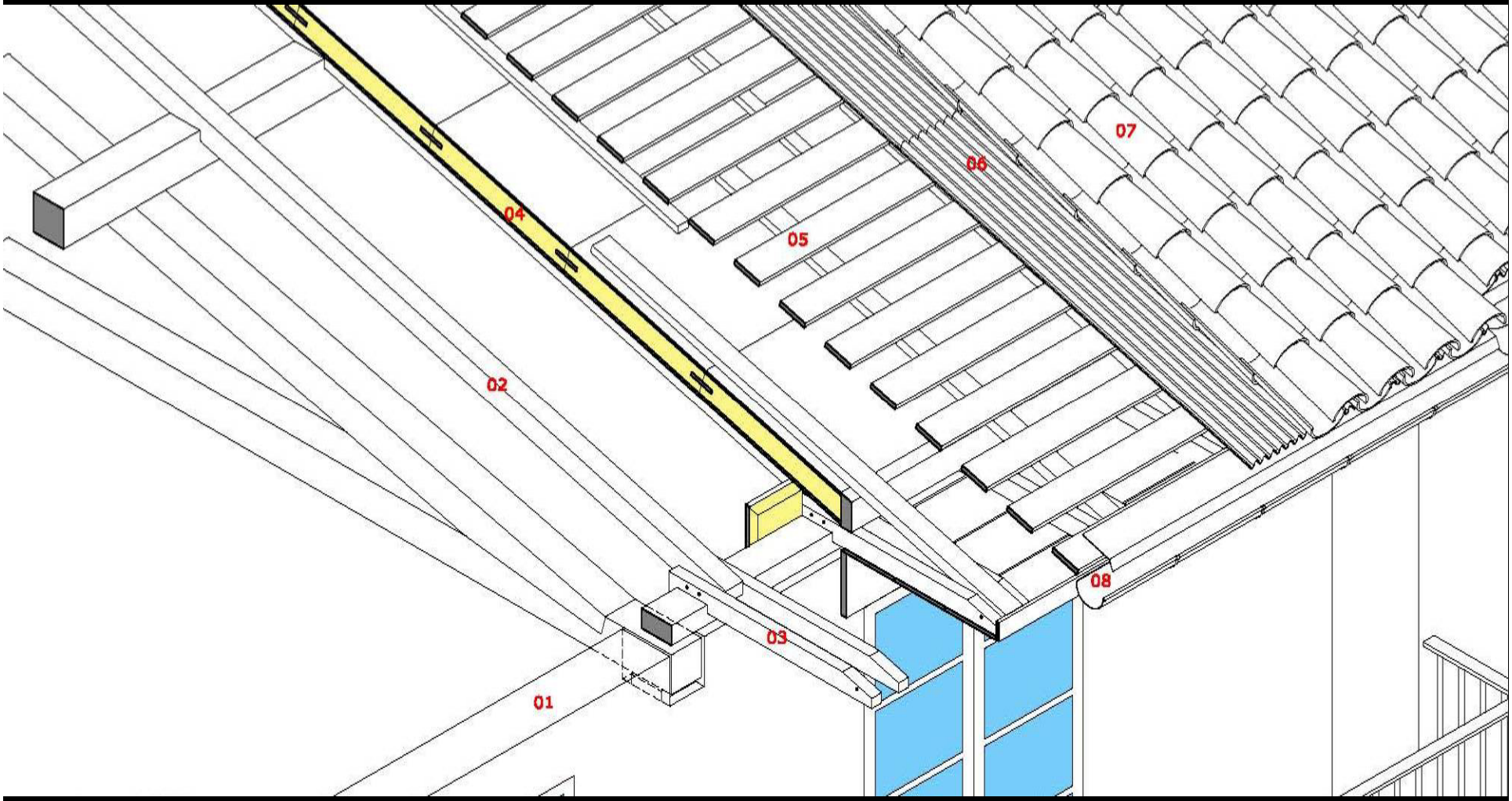


Espazo habitable baixo cuberta
(aproveitando o fallado para facer un “ático”)

espazo baixocuberta habitable


colocación de panel sandwich
con illamento térmico

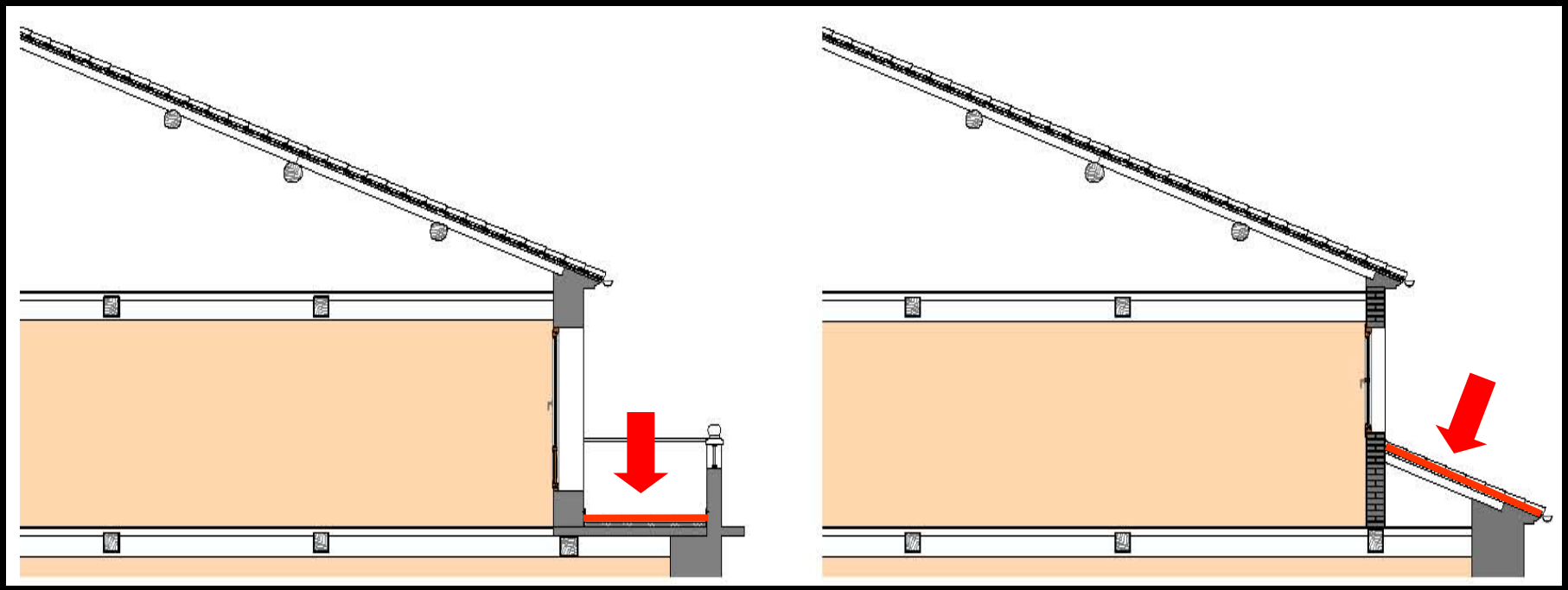
Solución construtiva para unha cuberta ben illada e impermeabilizada



bufarda en espazo baixocuberta habitable


colocación de panel sandwich
con illamento térmico

falso teito baixo cuberta con illamento térmico



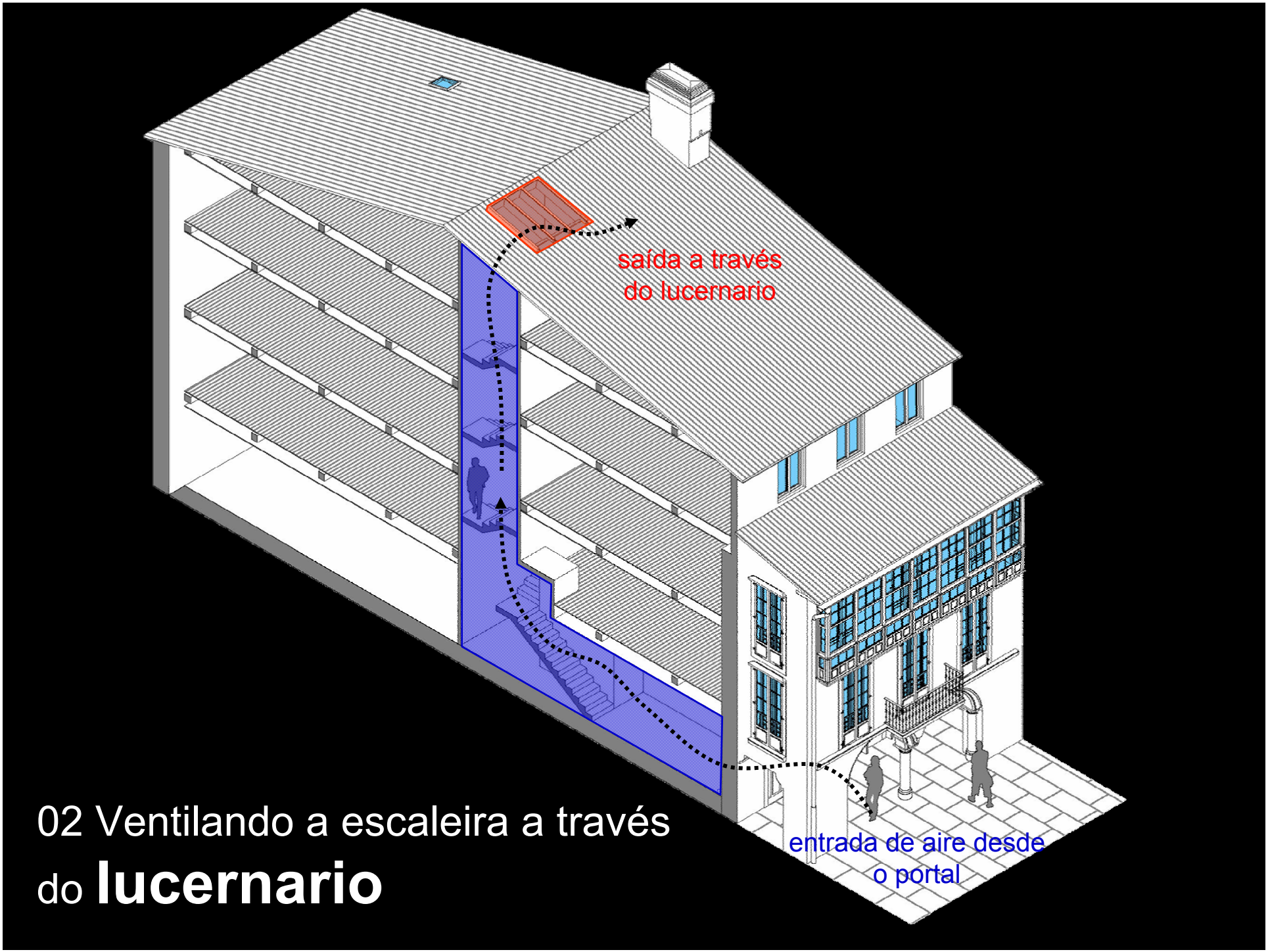
terraza

tellado

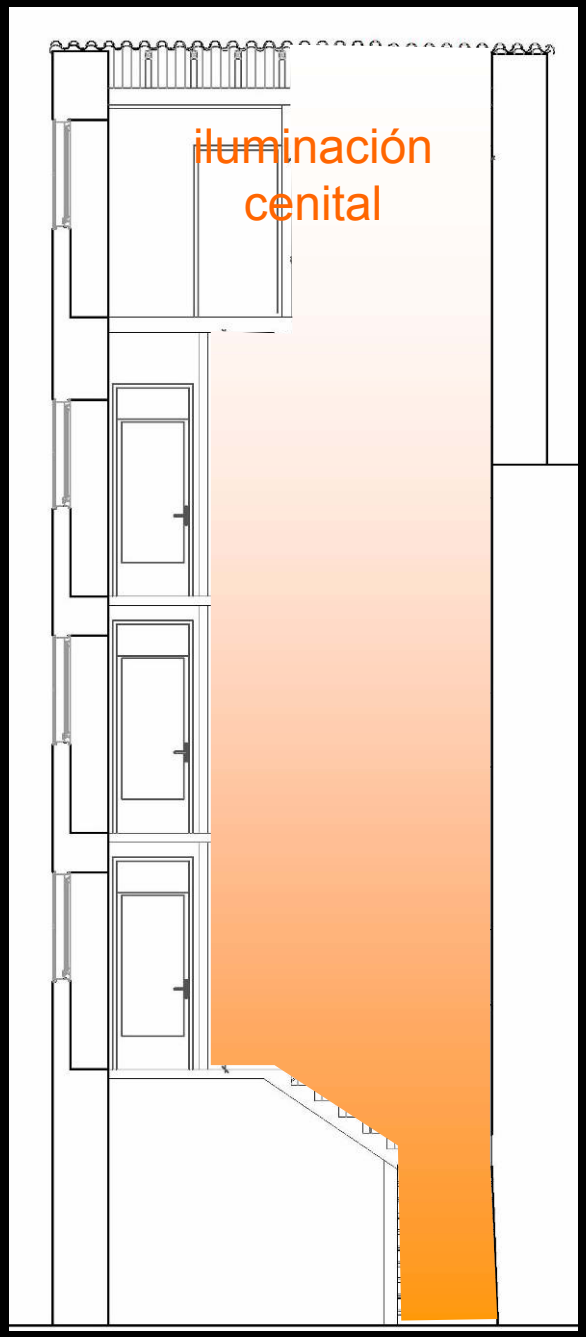
Espazo habitable retranqueado respecto da fachada

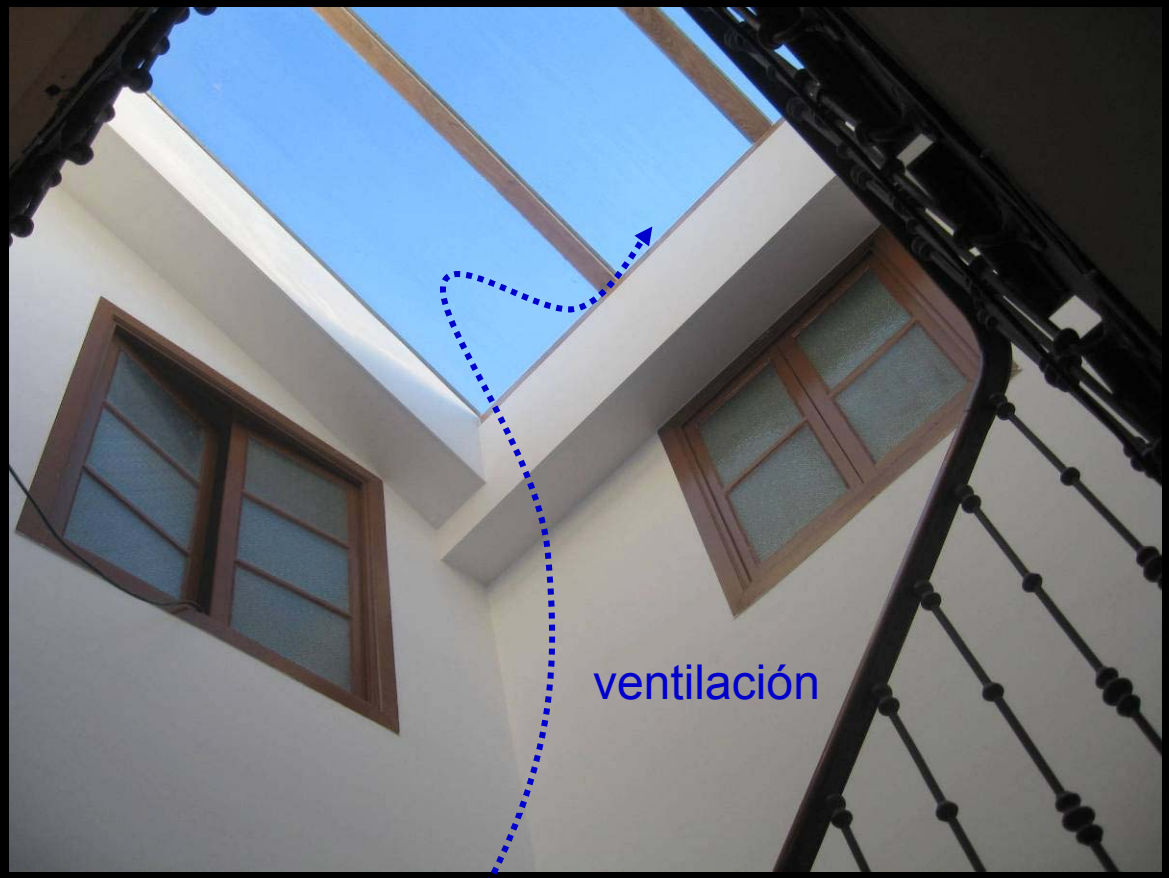
terraza

tellado



02 Ventilando a escaleira a través
do **lucernario**





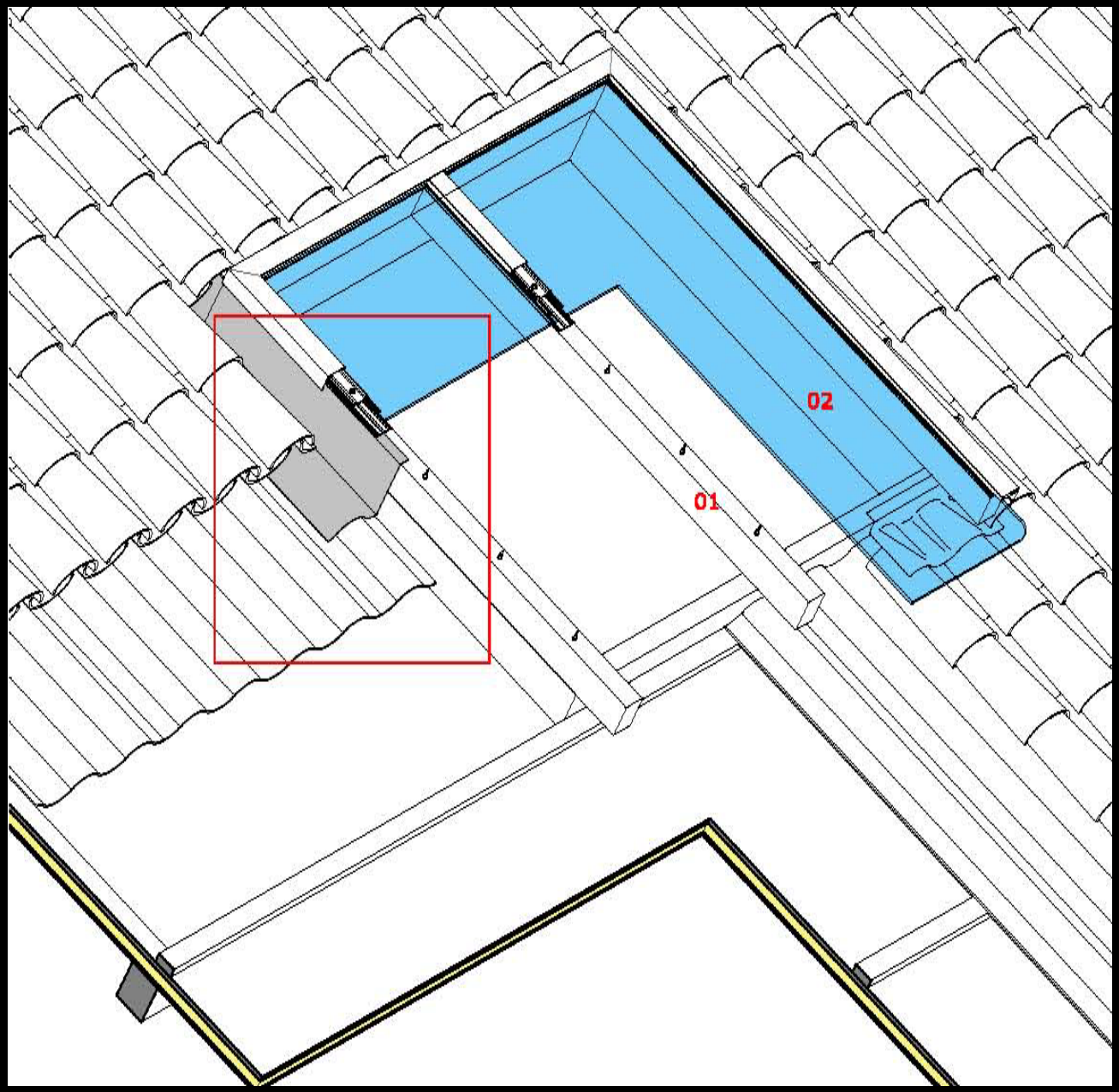
Elemento fundamental no **METABOLISMO do edificio histórico**

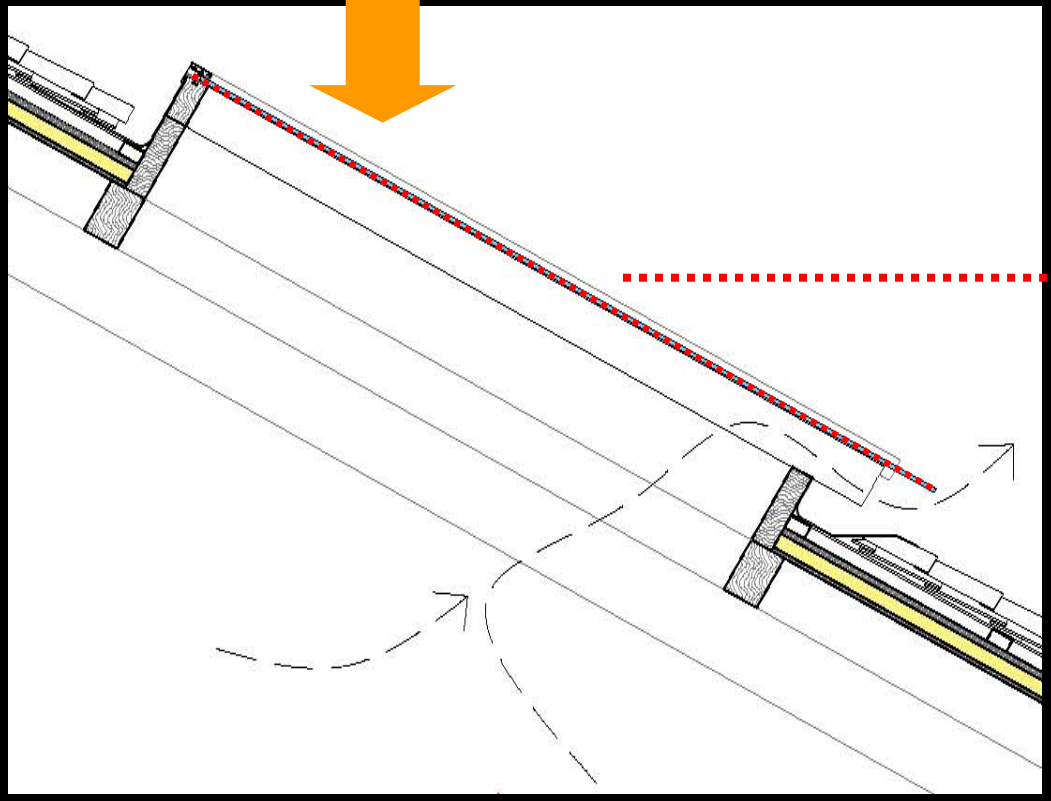
- ventilación = respiración
- iluminación = fotosíntese

iluminación natural diurna = eficencia enerxética

antes

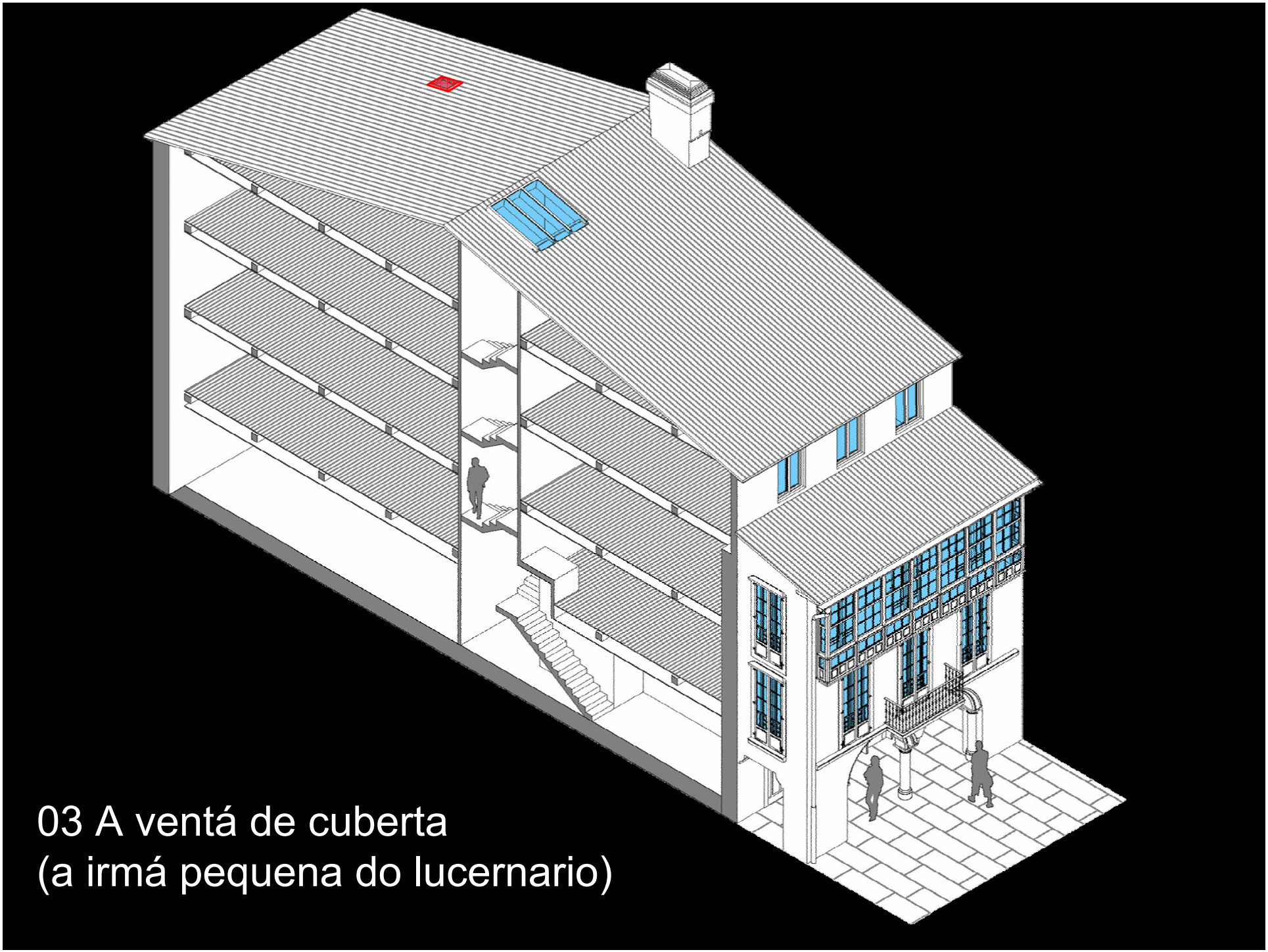
despois


02
01

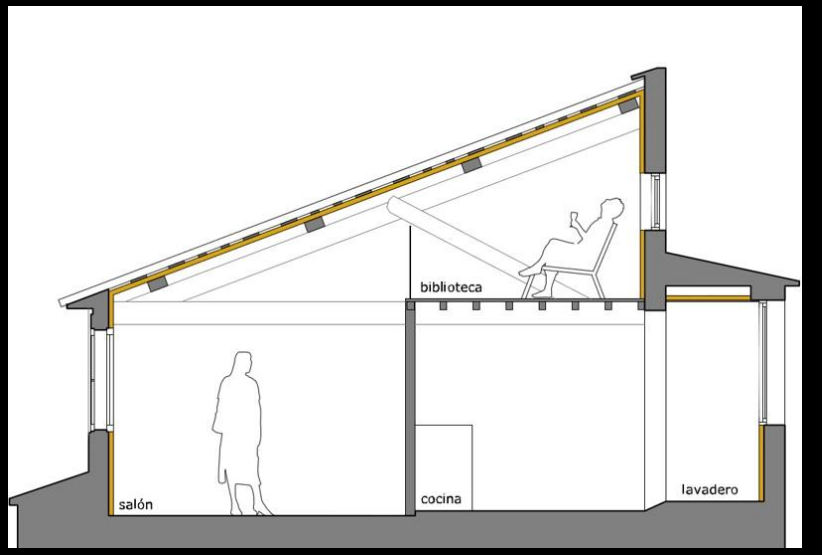


¿posibilidade de

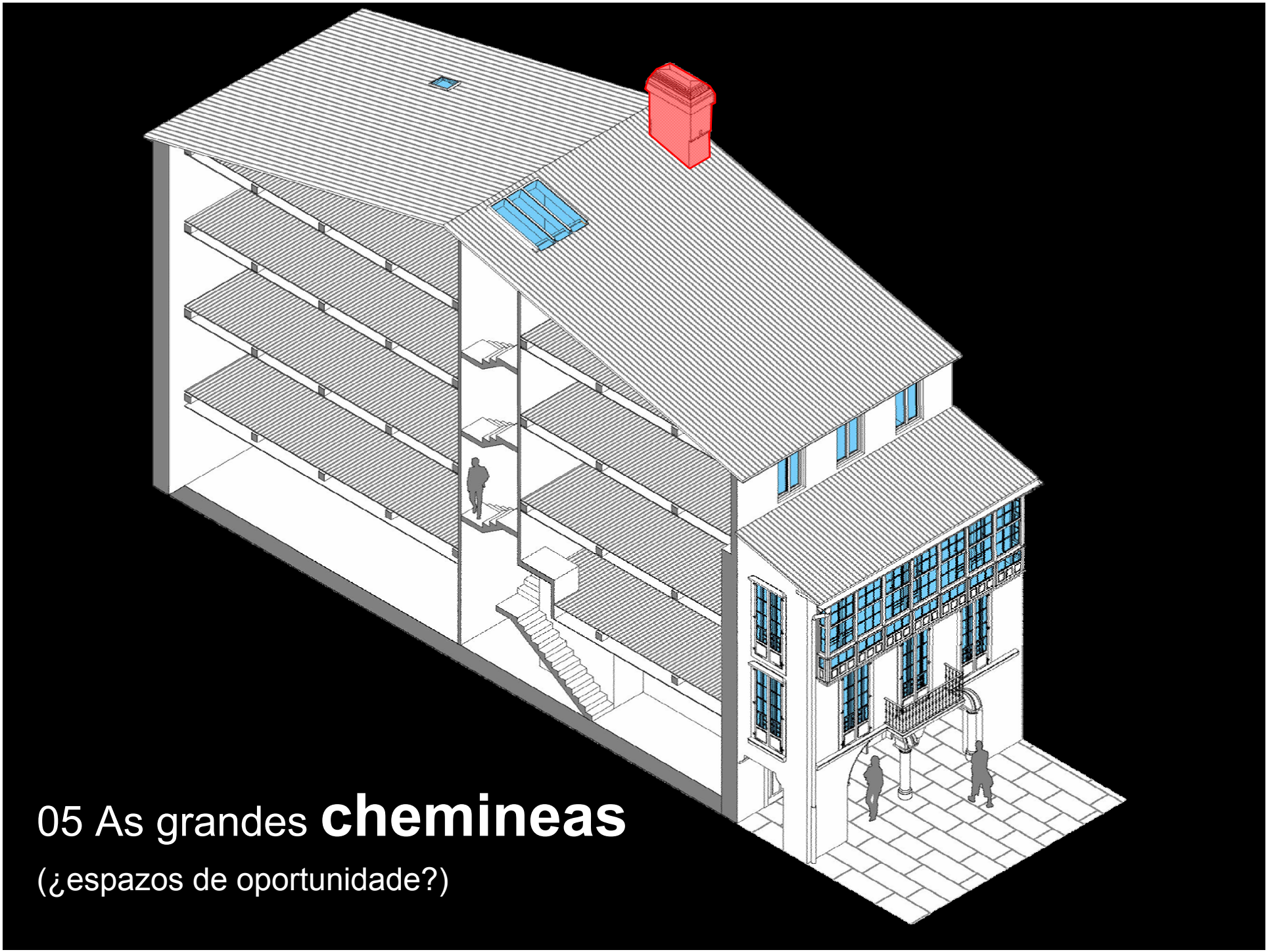
aproveitamento **fotovoltaico?**



03 A ventá de cuberta
(a irmá pequena do lucernario)



Iluminación natural + ventilación natural controlada
saída para mantemento de cuberta

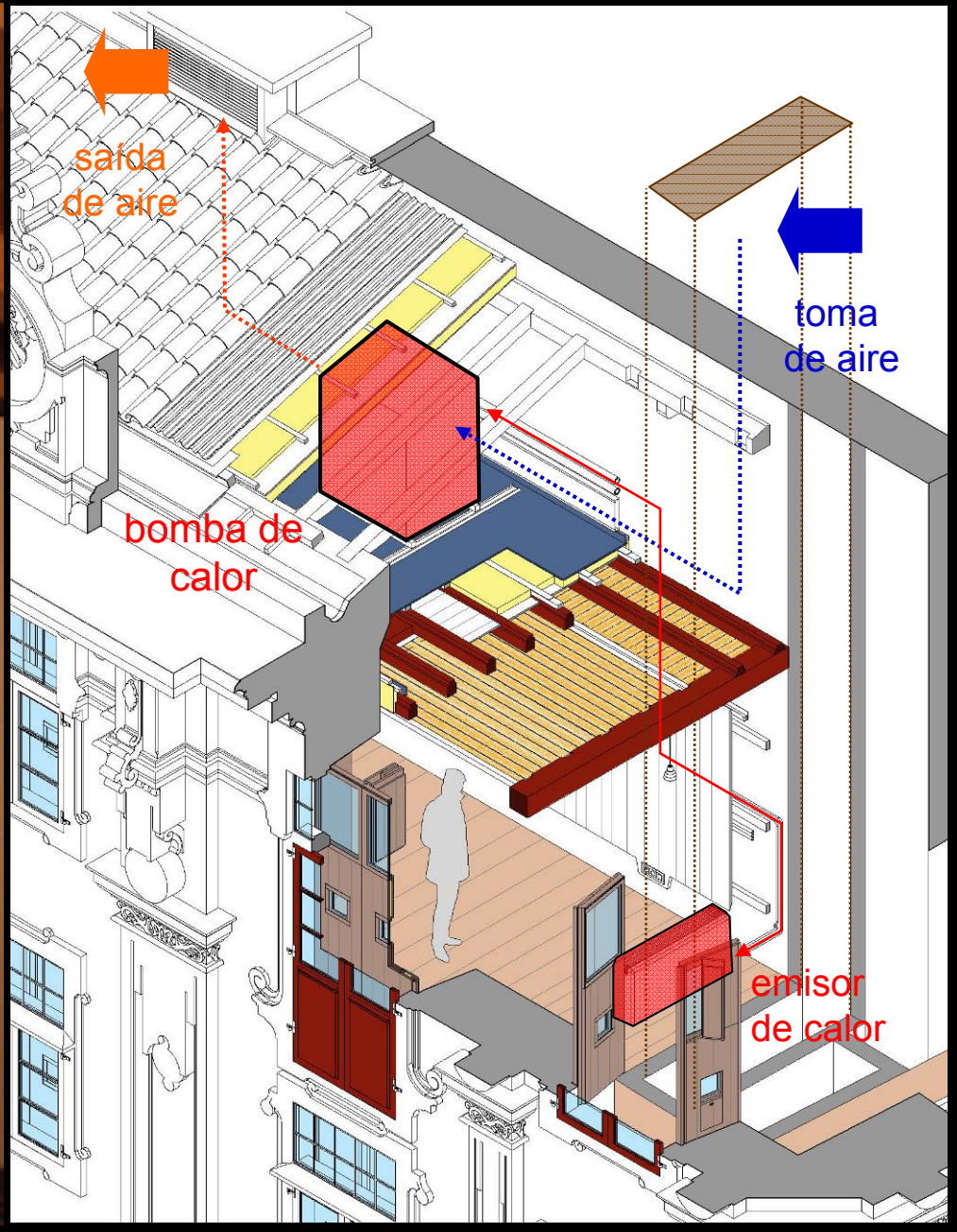


05 As grandes **chemineas**

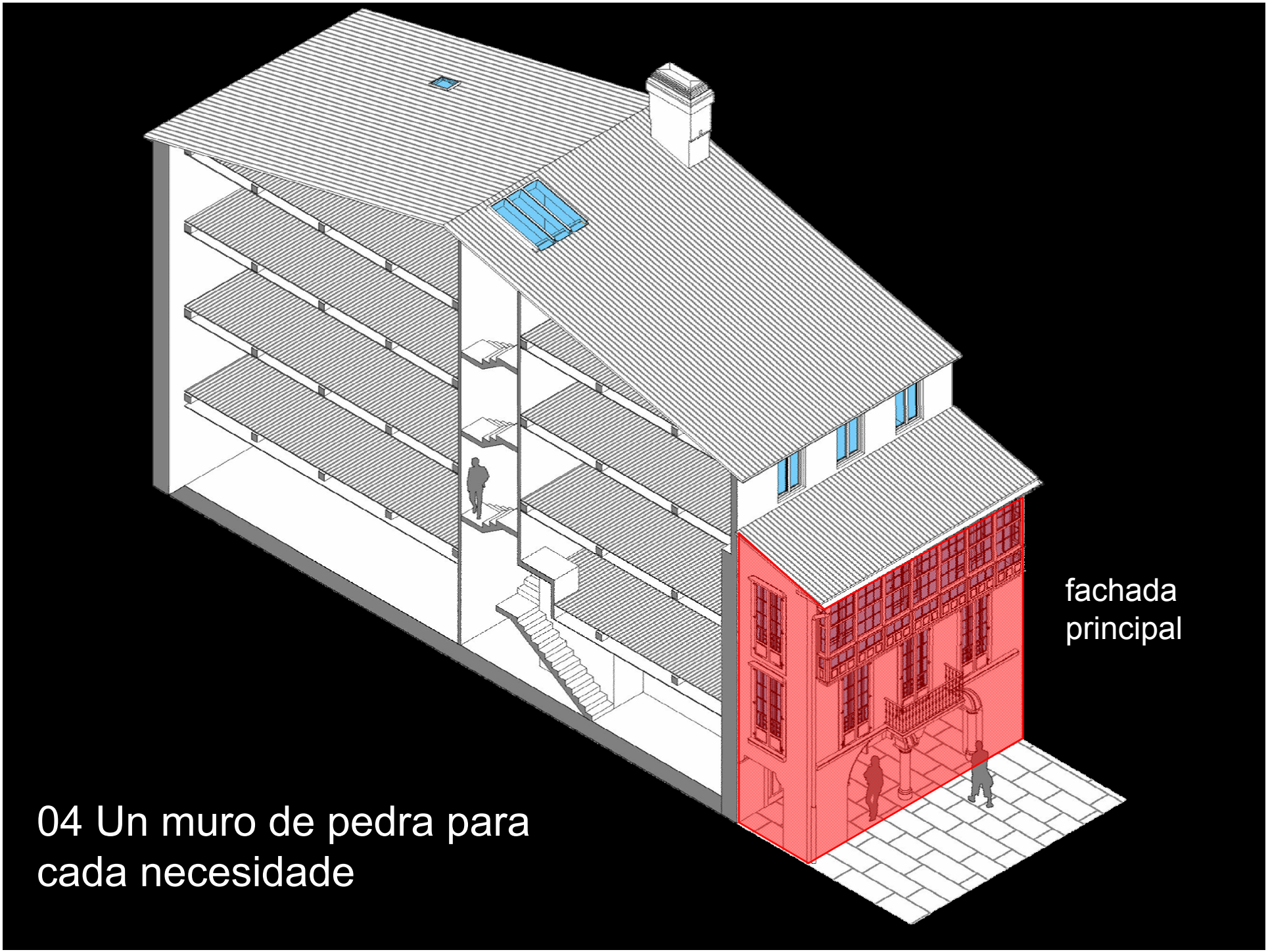
(¿espazos de oportunidade?)


Palmolive


¡cacho
cheminea!



espazo de oportunidade para a bomba de calor



04 Un muro de pedra para cada necesidade

gran espesor – **enorme inercia térmica**

sillería

mampostería

CUESTIÓN DE
INERCIA TÉRMICA

2.716 m3

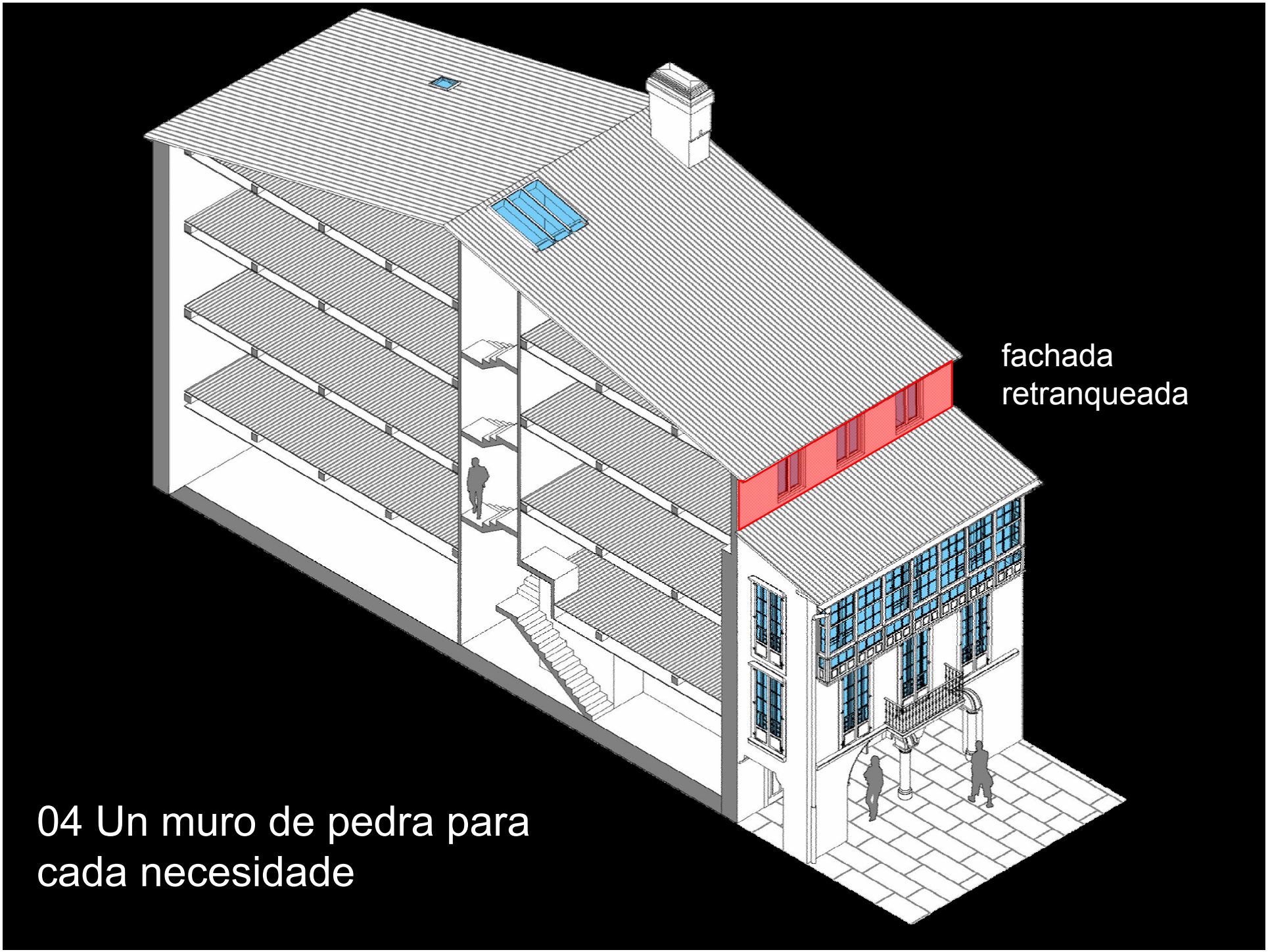
volume de aire habitable

657 m3

pedra

0,80 m3

12 habitantes

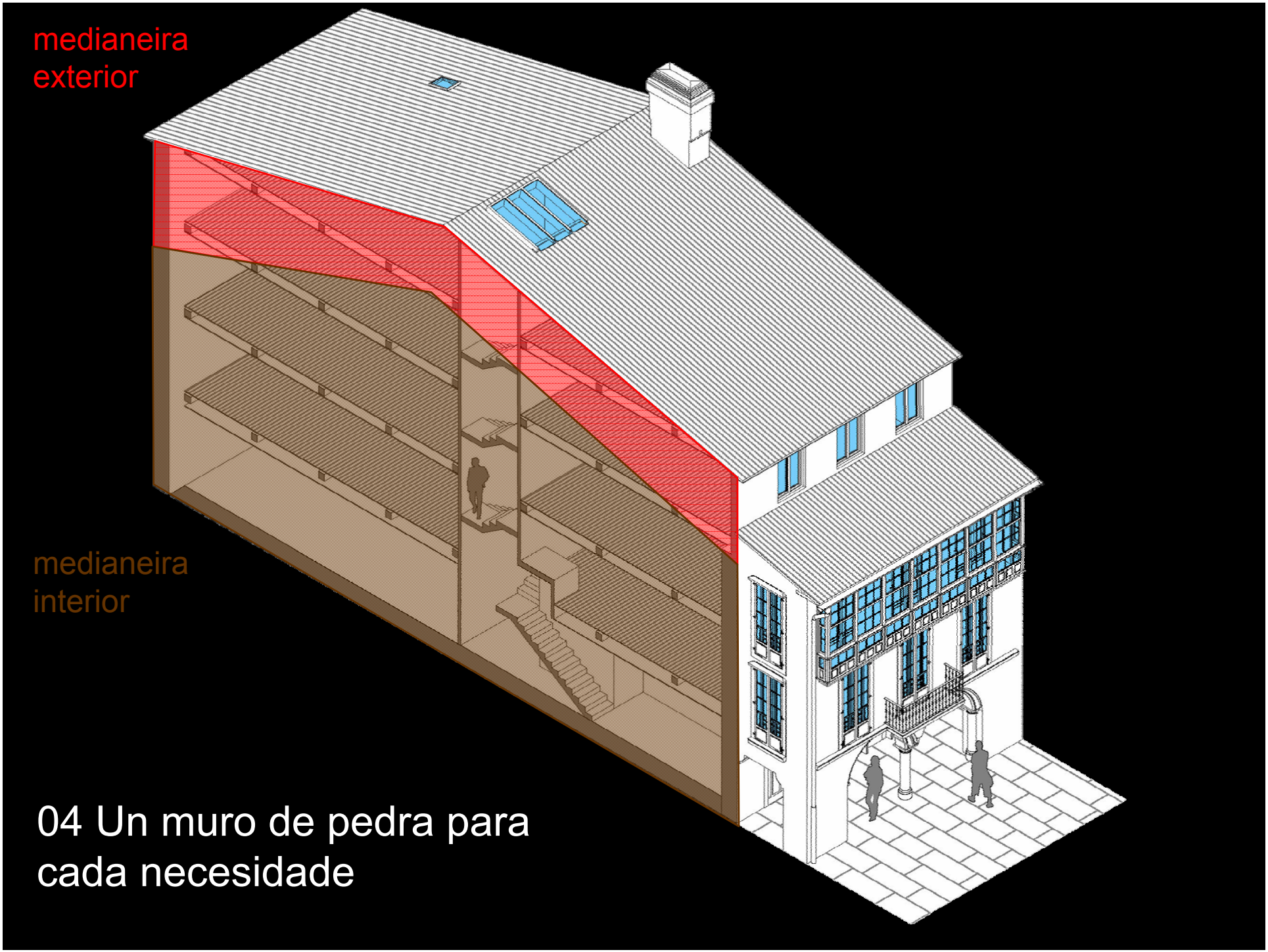


04 Un muro de pedra para
cada necesidade

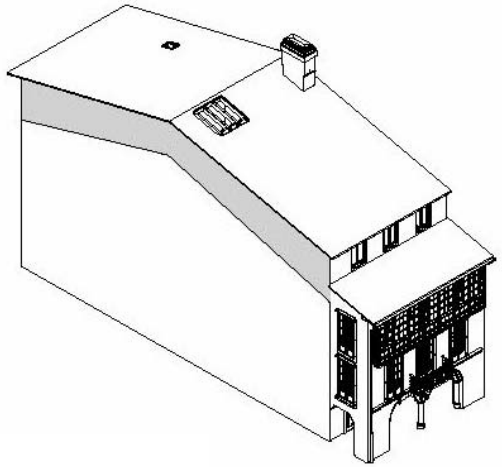
muro de perpiaño

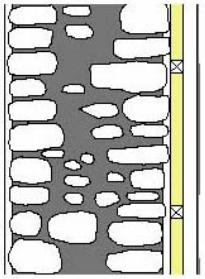
pouca inercia térmica
posibilidade de illamento térmico

cerramento de madeira

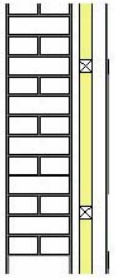


04 Un muro de pedra para cada necesidade





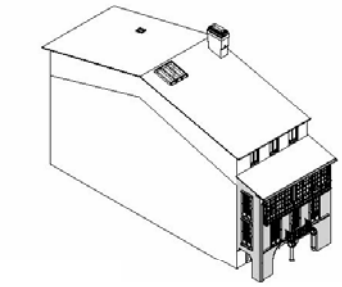
medianeira
de
mampostería

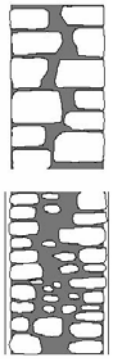


medianeira
de fábrica de
ladrillo

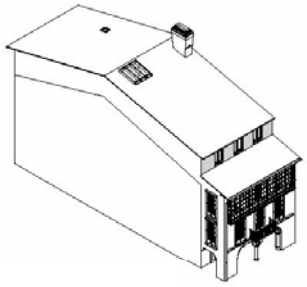
fachada ventilada
+ illamento térmico

fachada principal

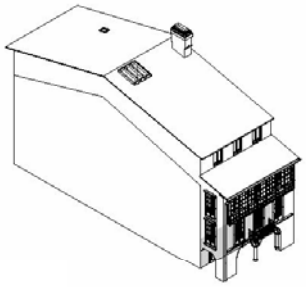


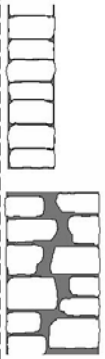


fachada retranqueada

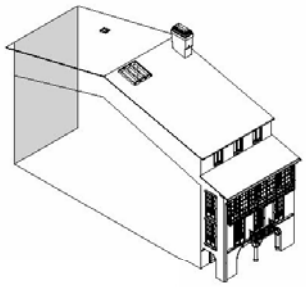


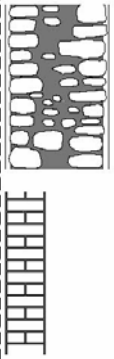
fachada soportal



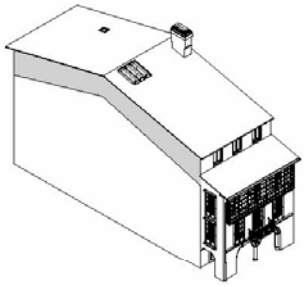


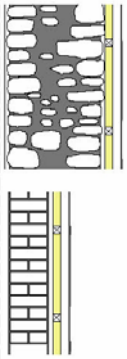
fachada interior

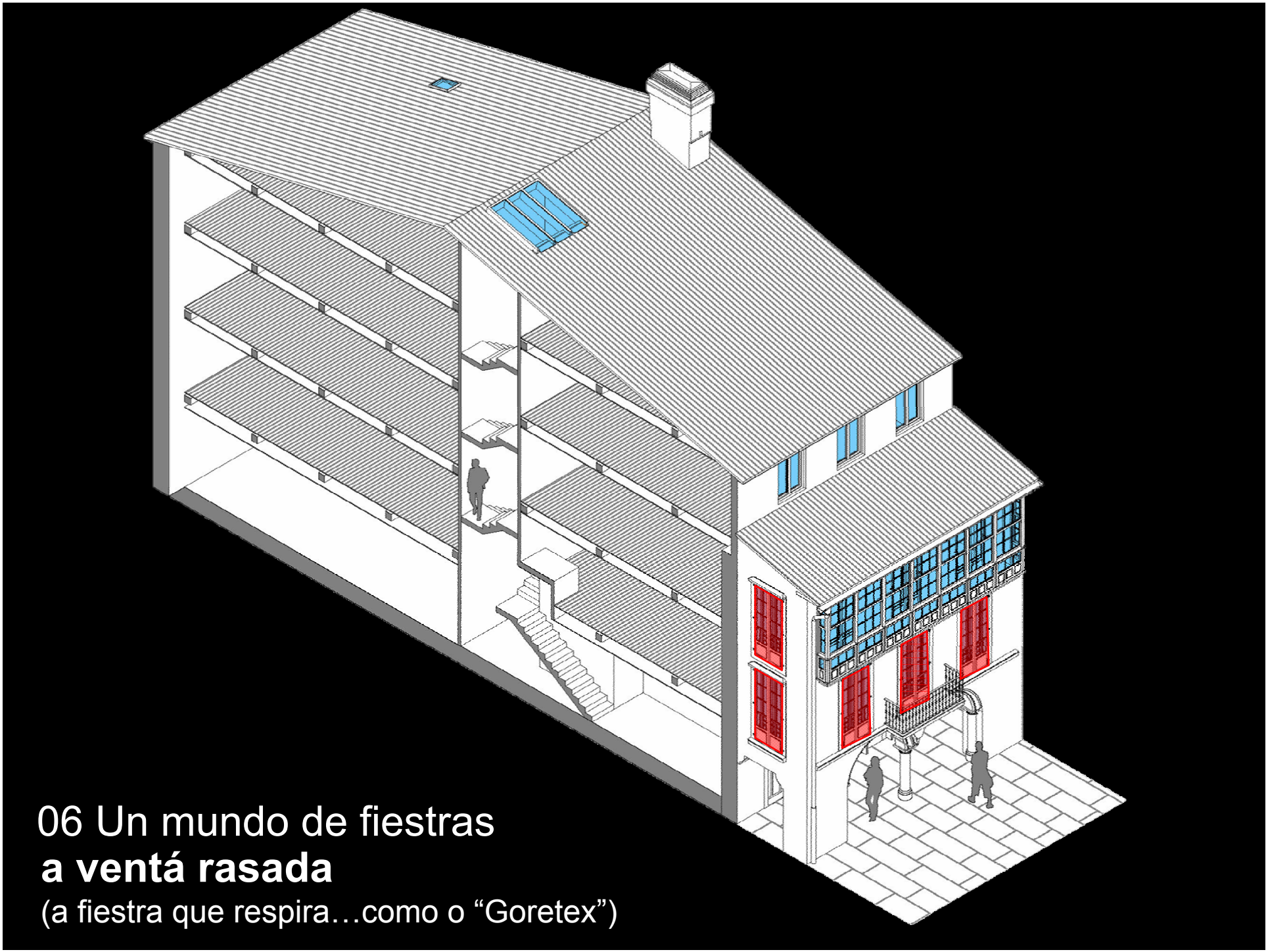




medianeira





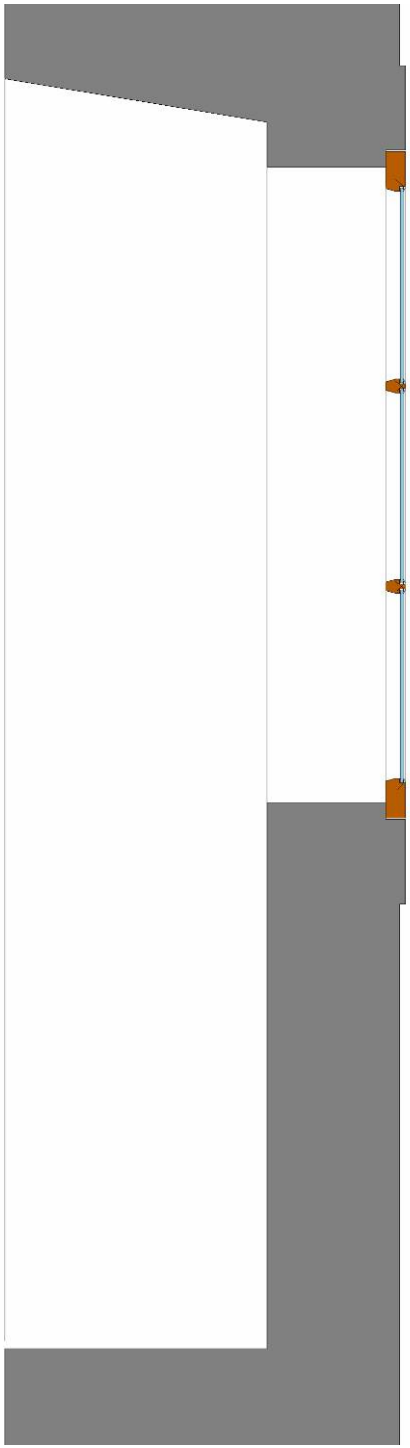


06 Un mundo de fiestras

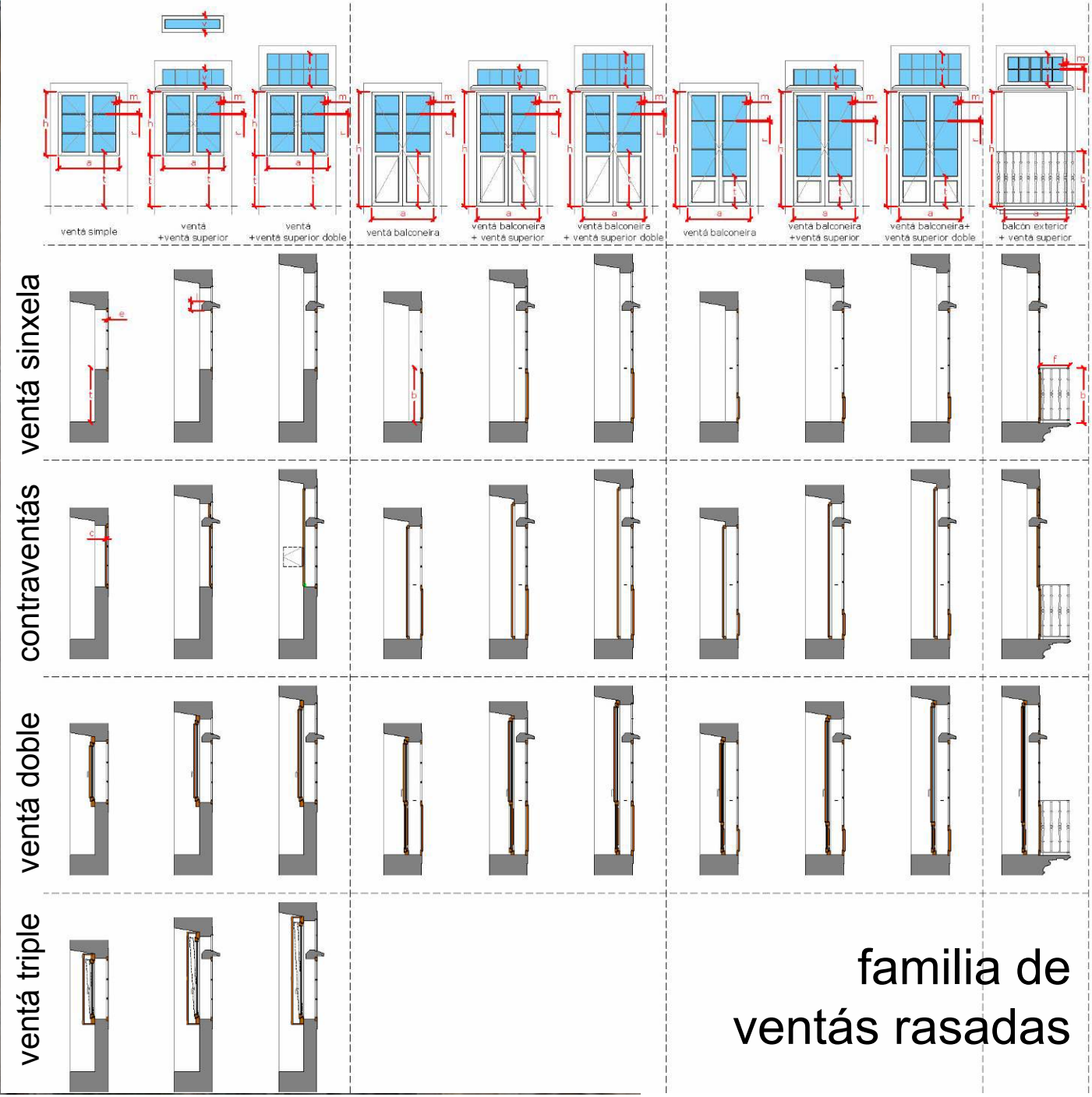
a ventá rasada

(a fiestra que respira…como o “Goretex”)

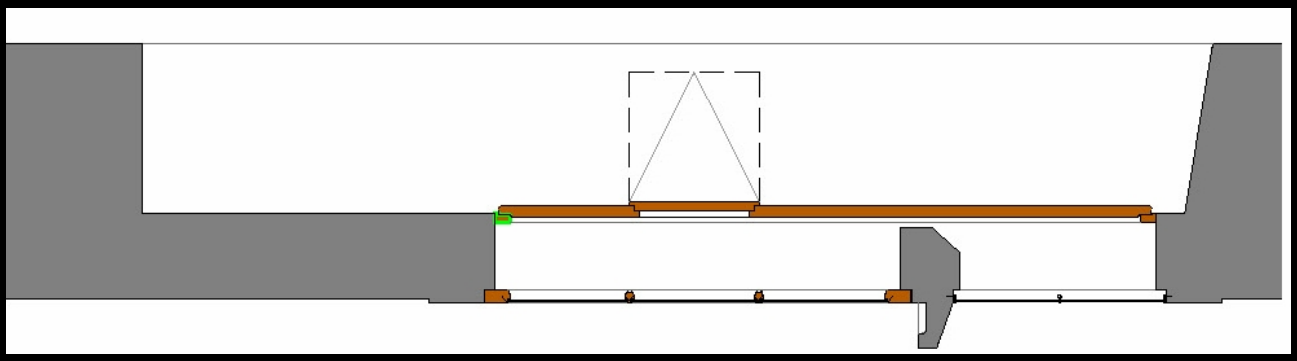

SANTIAGO



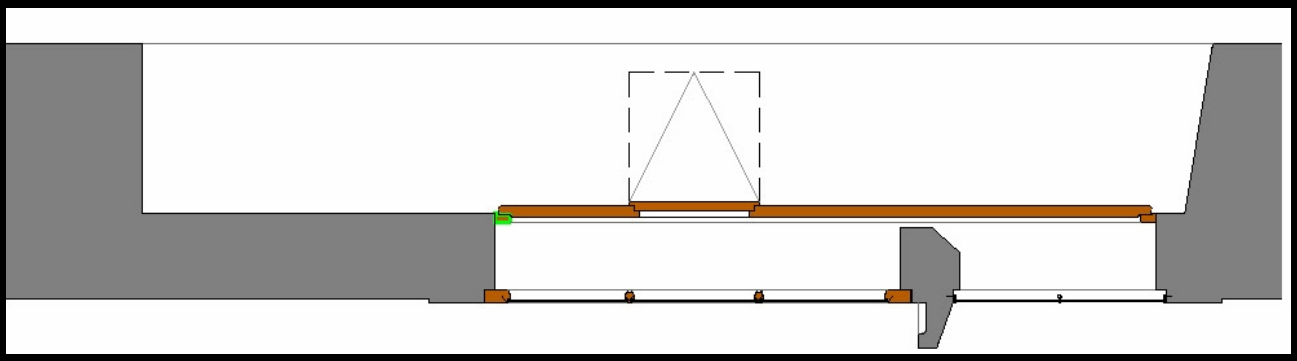

vidro de 4 mm enmasillado



familia de ventás rasadas



contraventá tradicional



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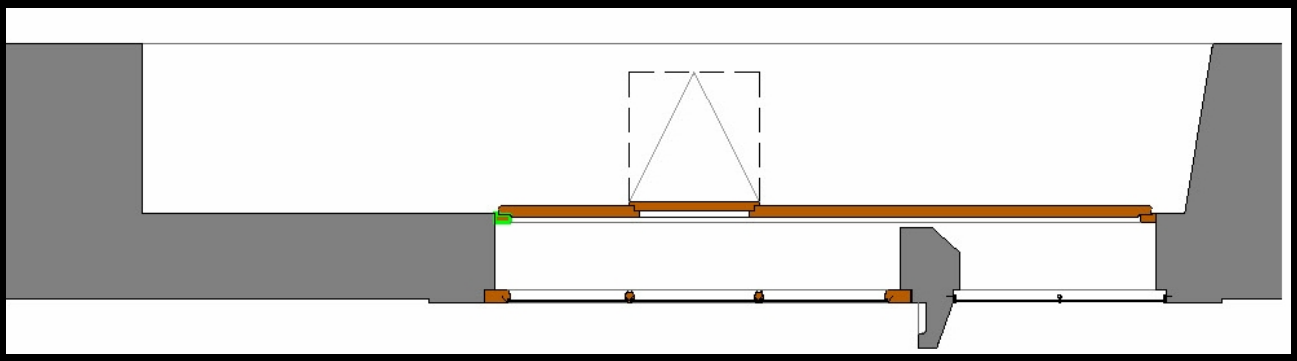
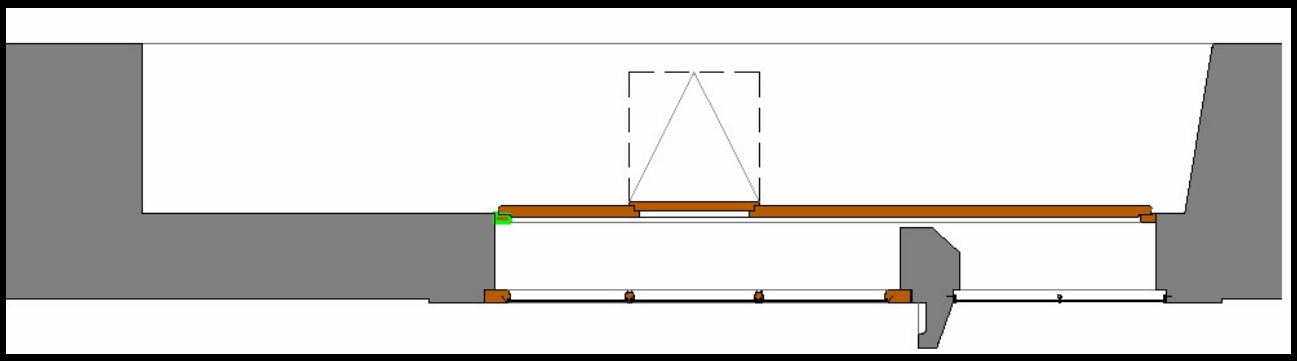
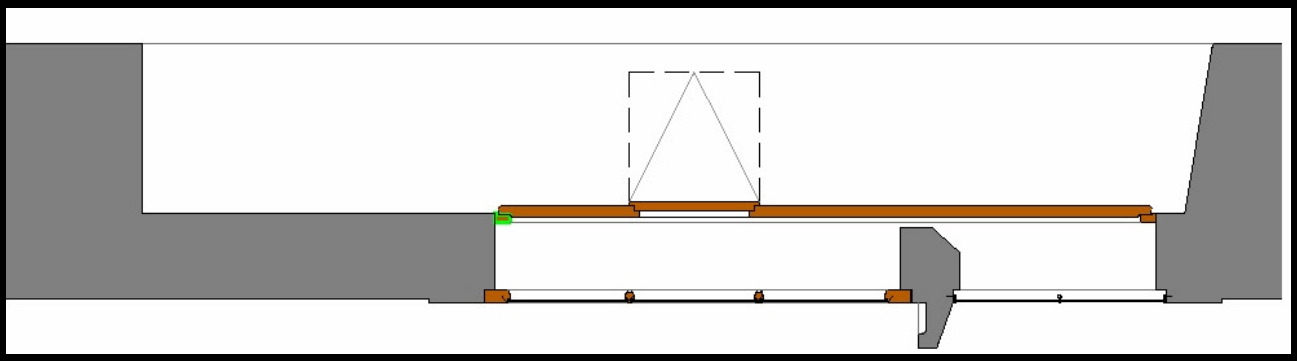


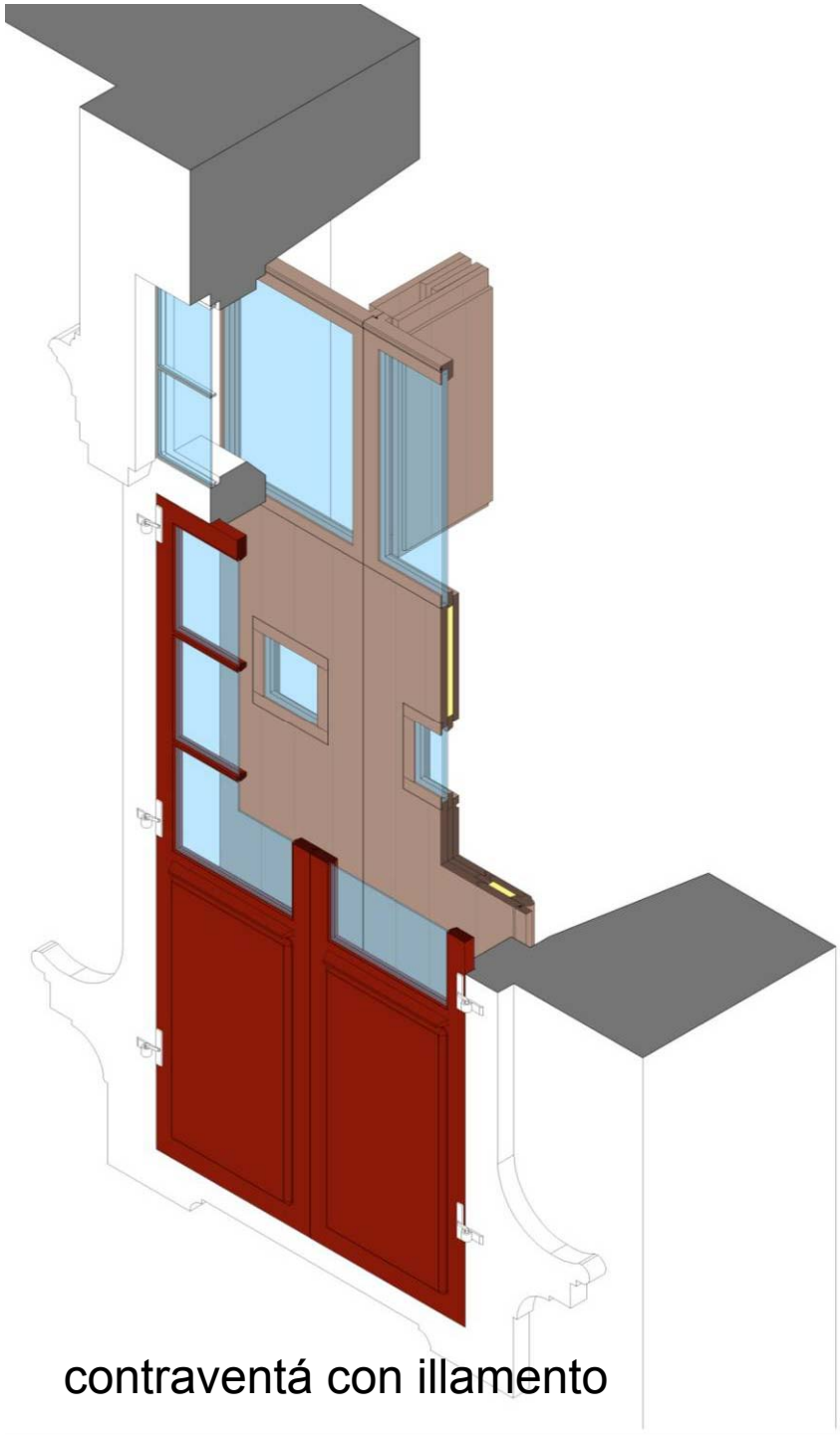
contraventá tradicional



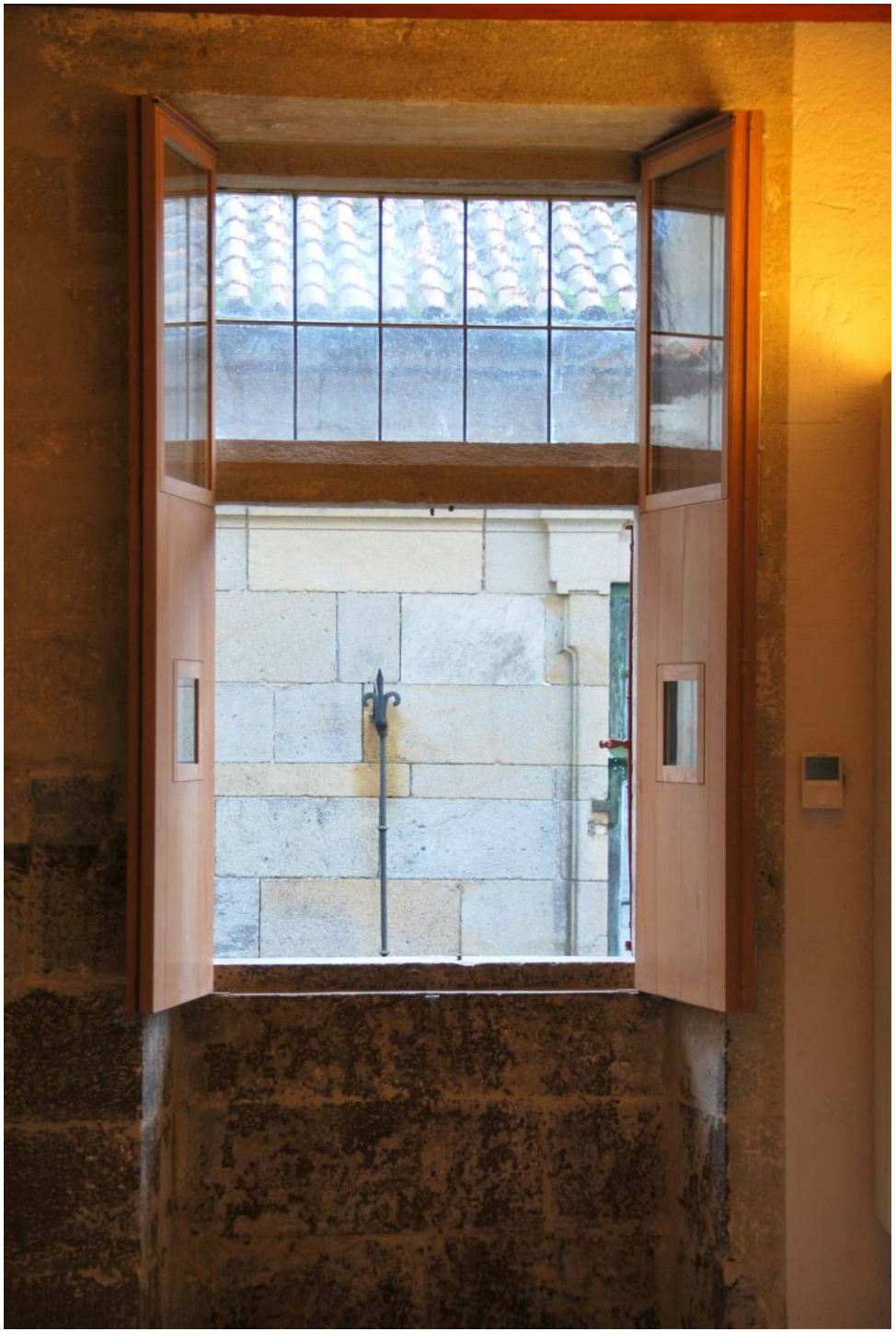
contraventá tradicional

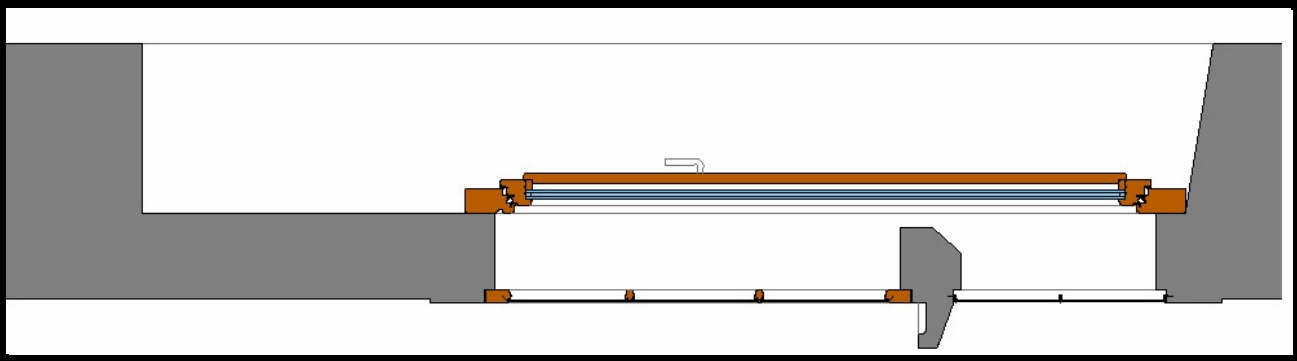


contraventá tradicional



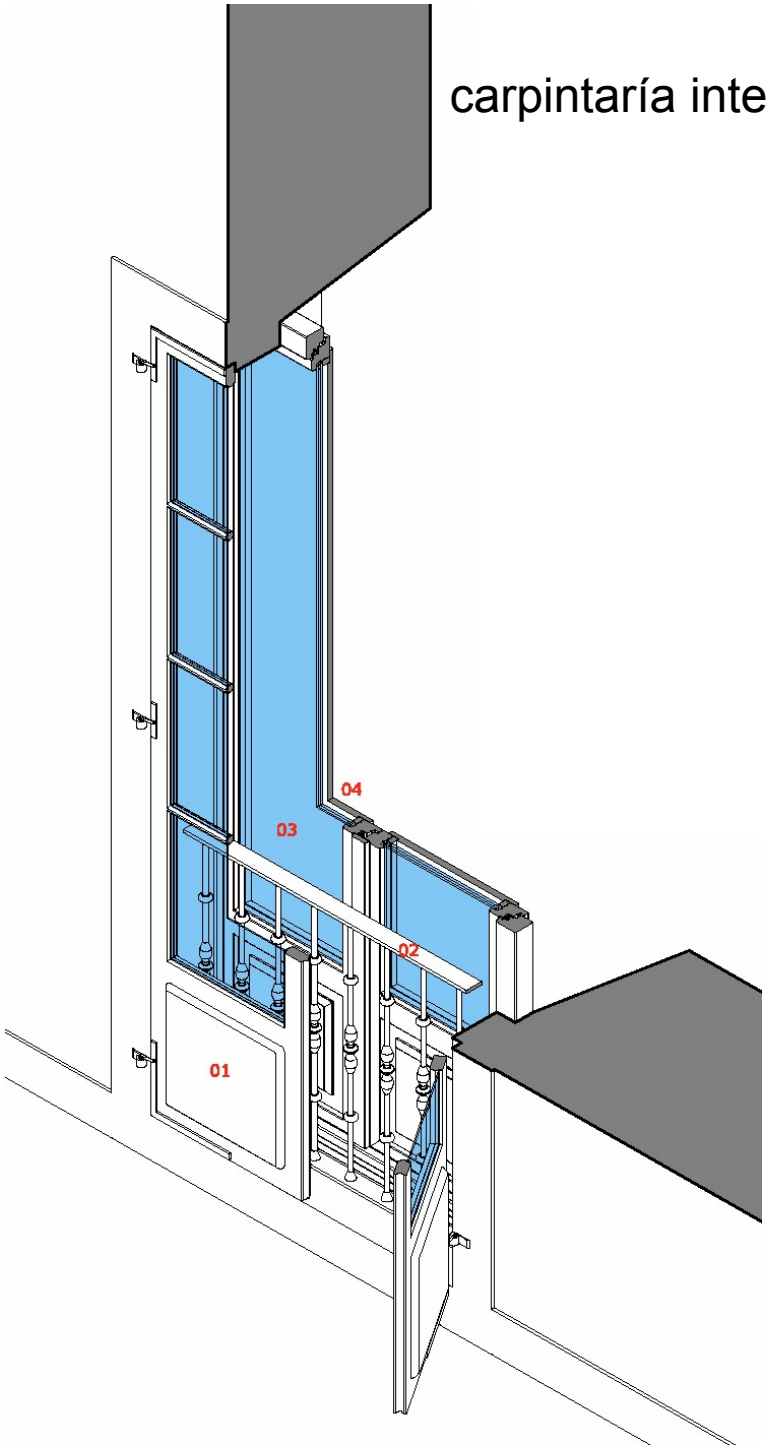
contraventá con illamento

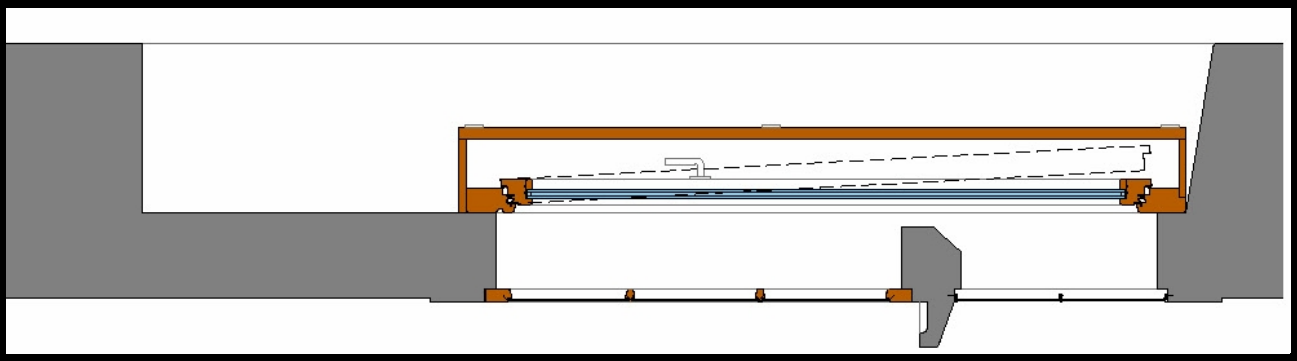




ventá doble

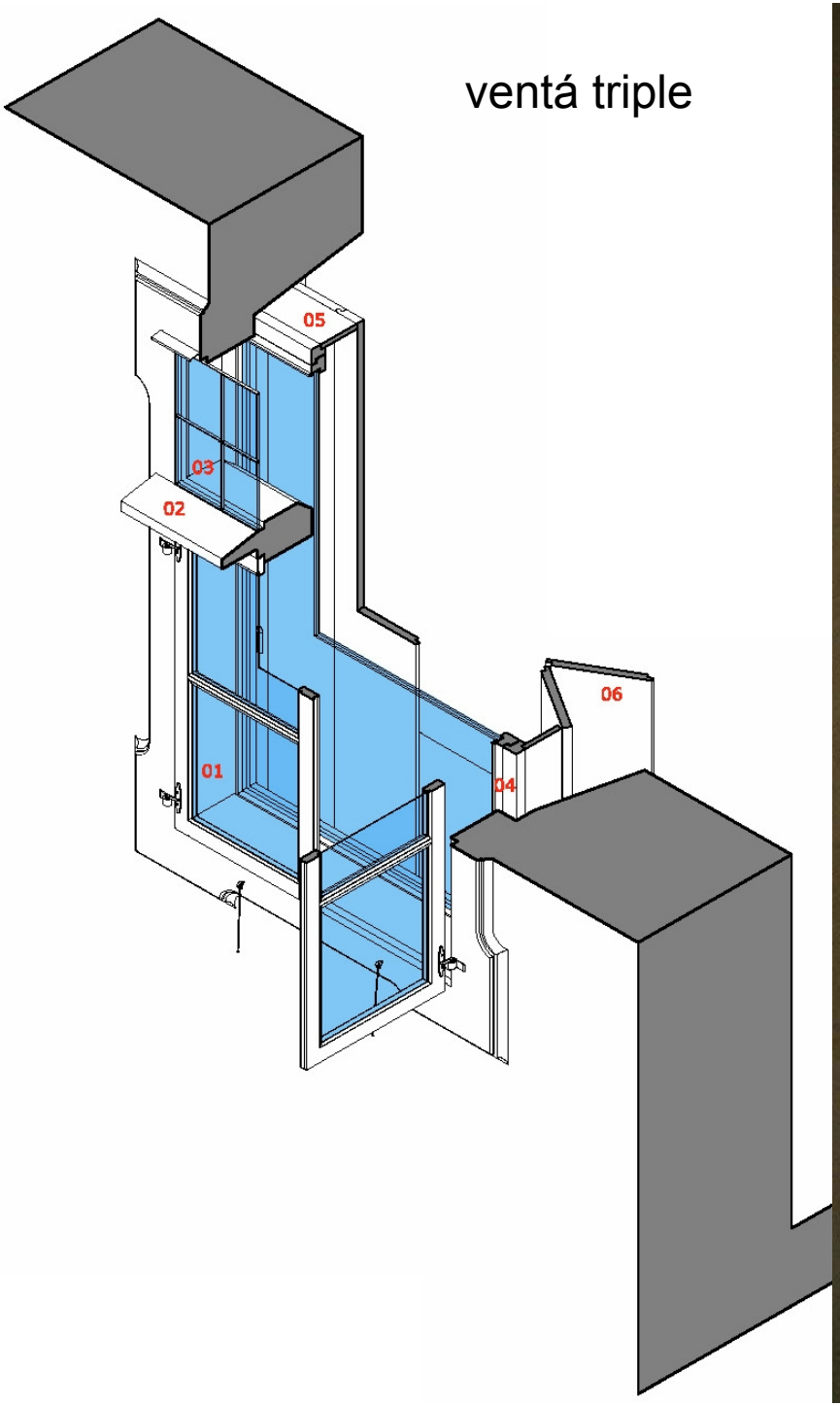
carpintaría interior

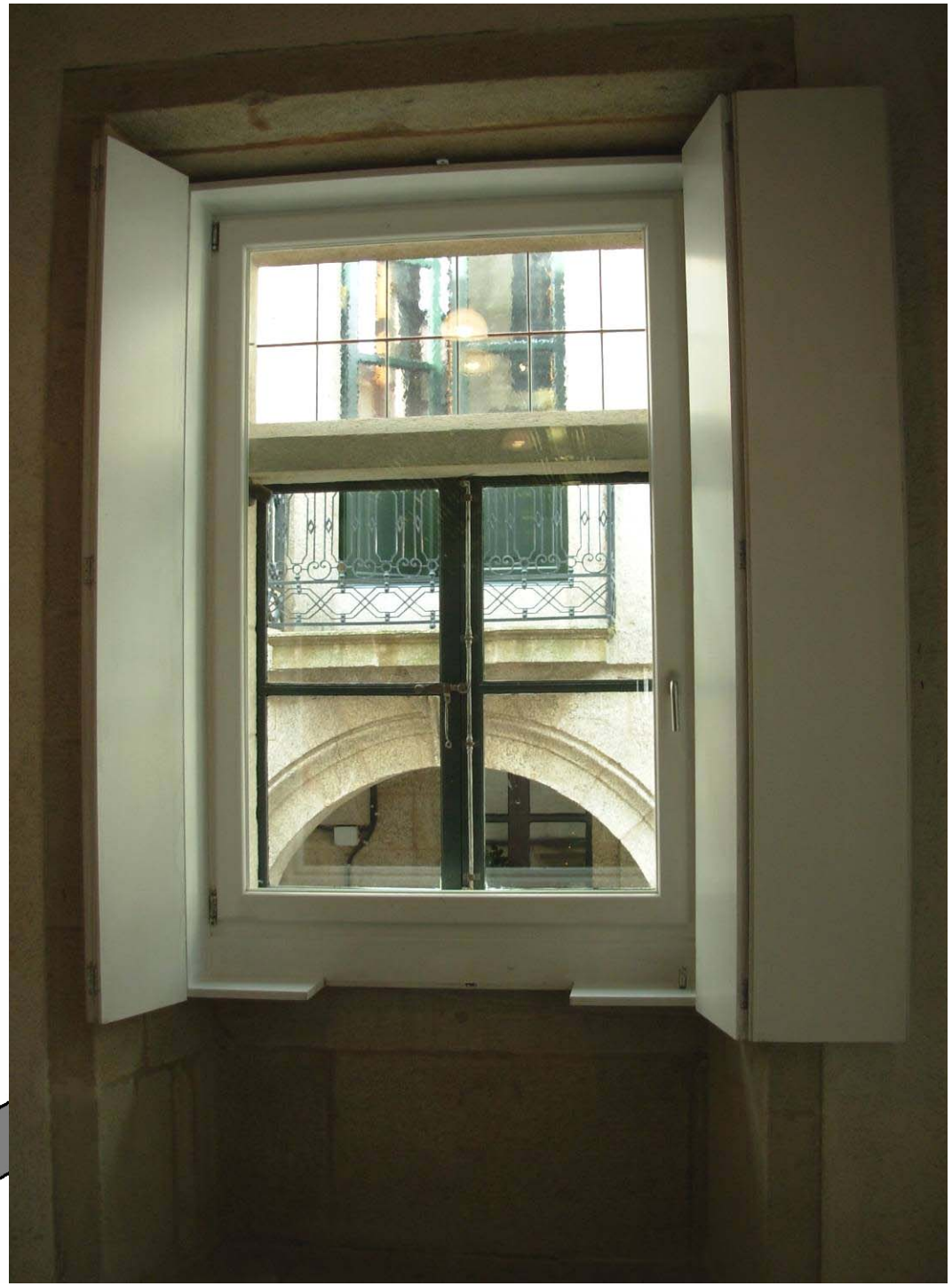


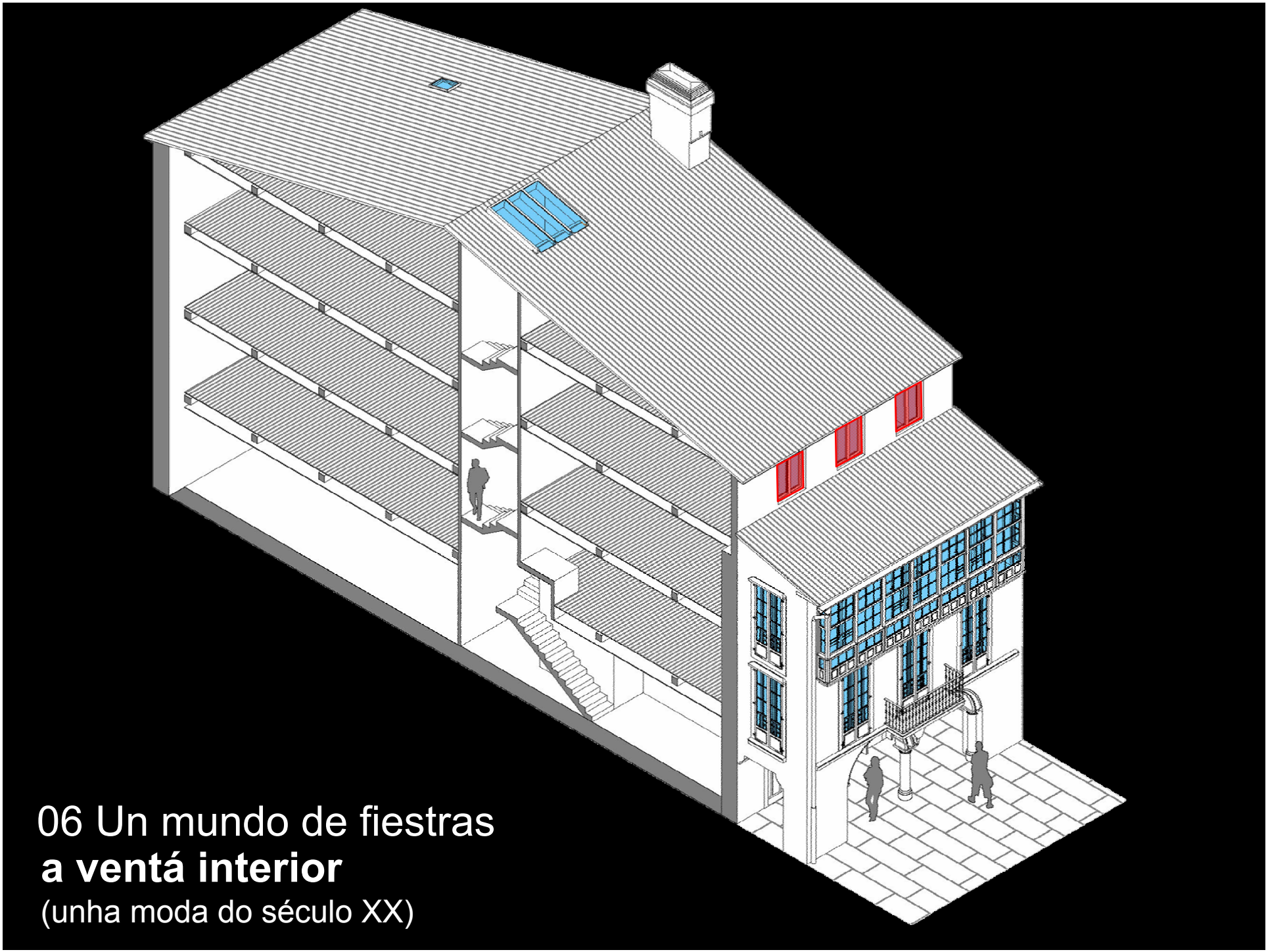


ventá triple

ventá triple



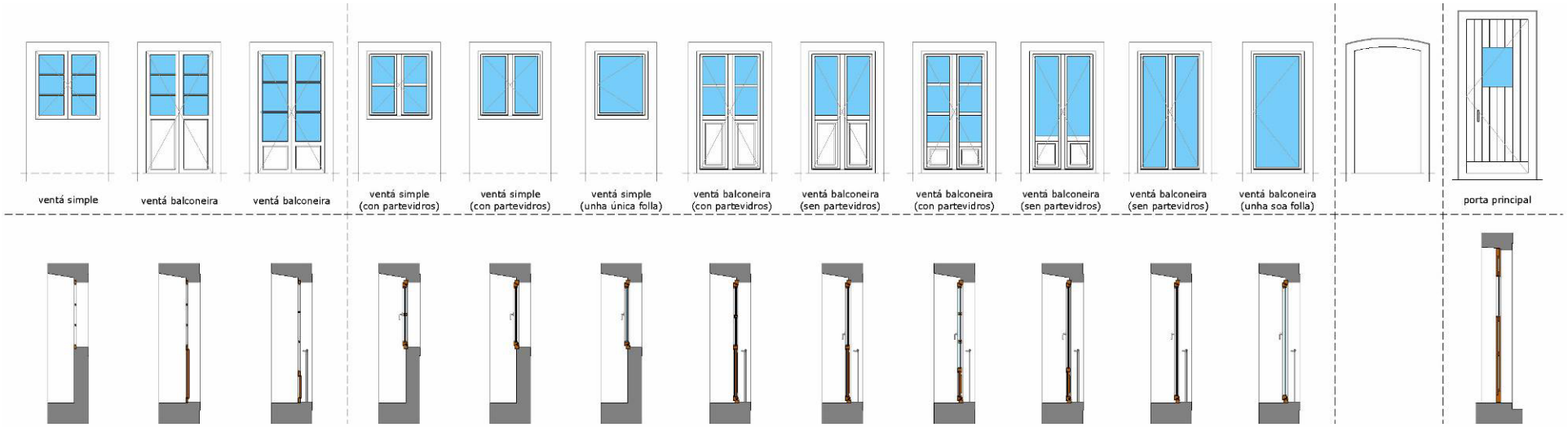




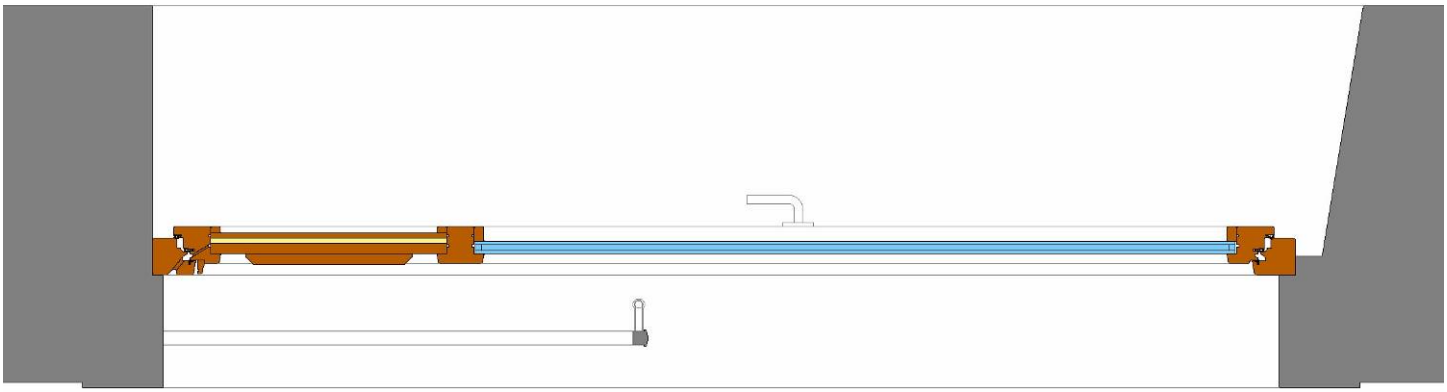
06 Un mundo de fiestras

a ventá interior

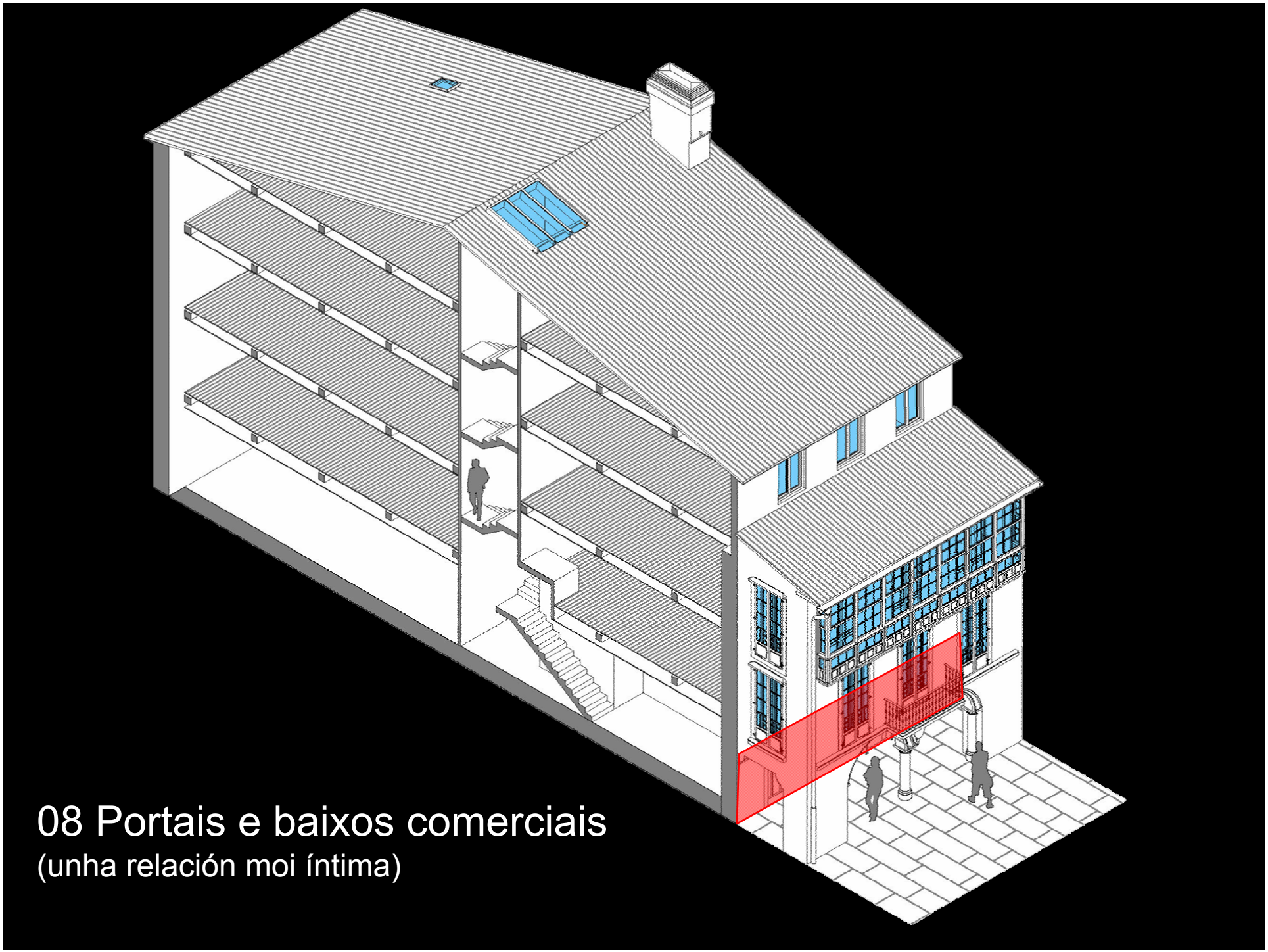
(unha moda do século XX)



familia de ventás interiores

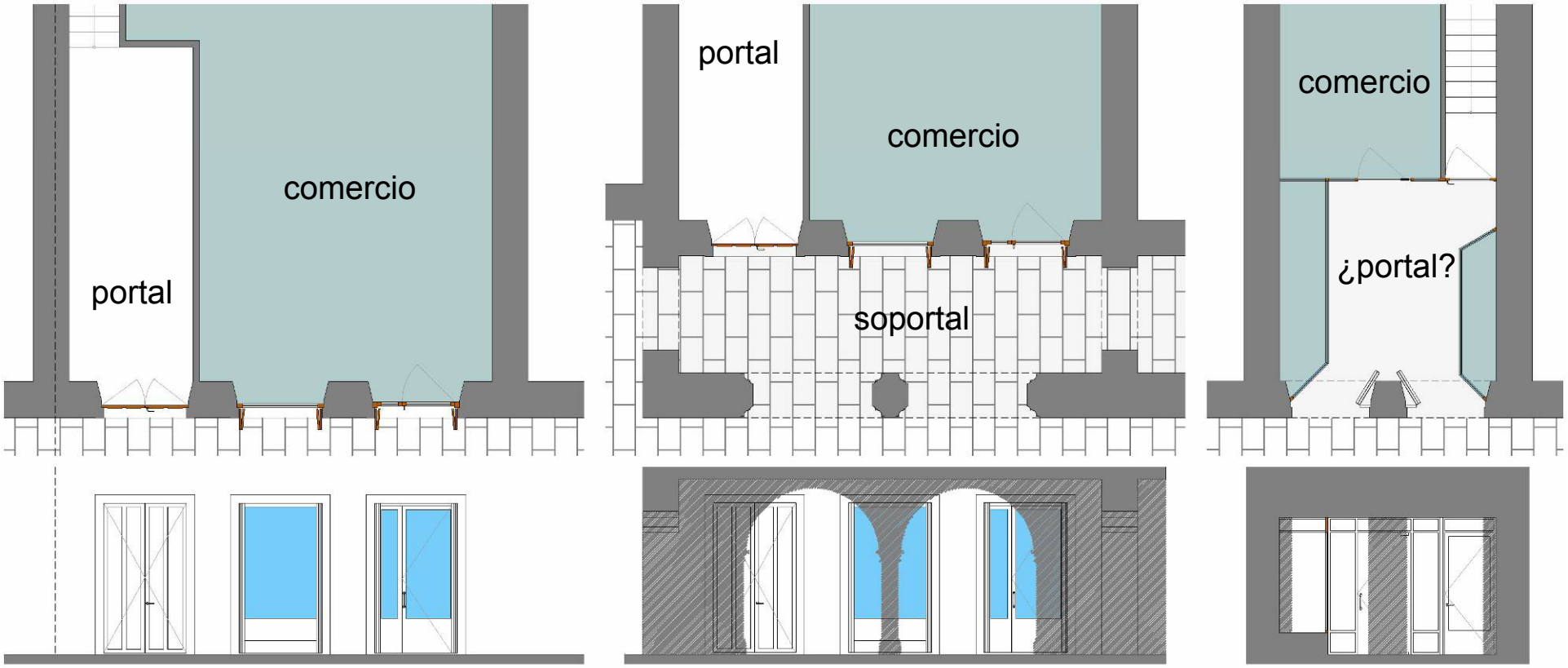


substitución de ventá interior



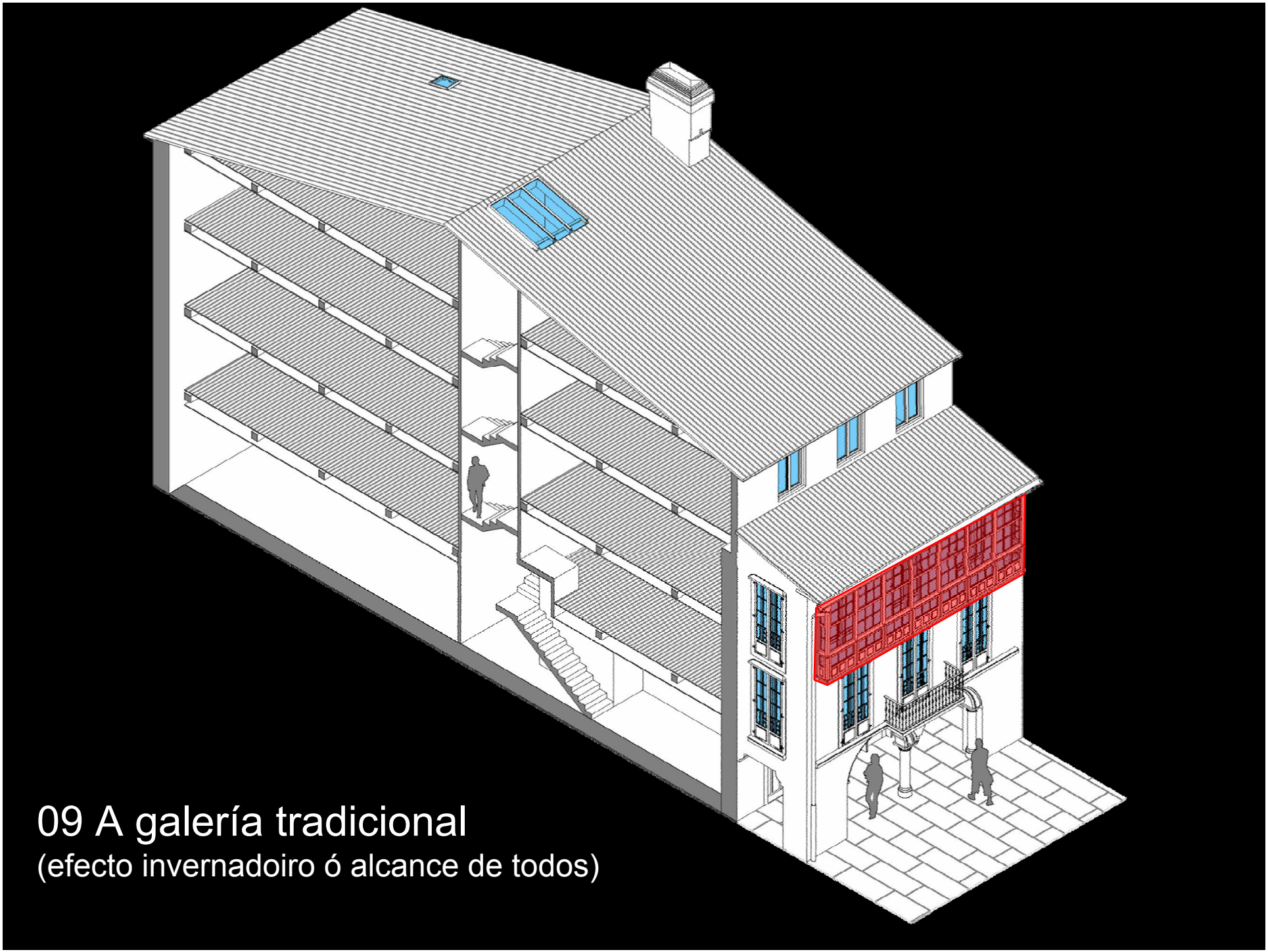
08 Portais e baixos comerciais

(unha relación moi íntima)



portais e baixos comerciais


ANRI
ANRI
37



09 A galería tradicional

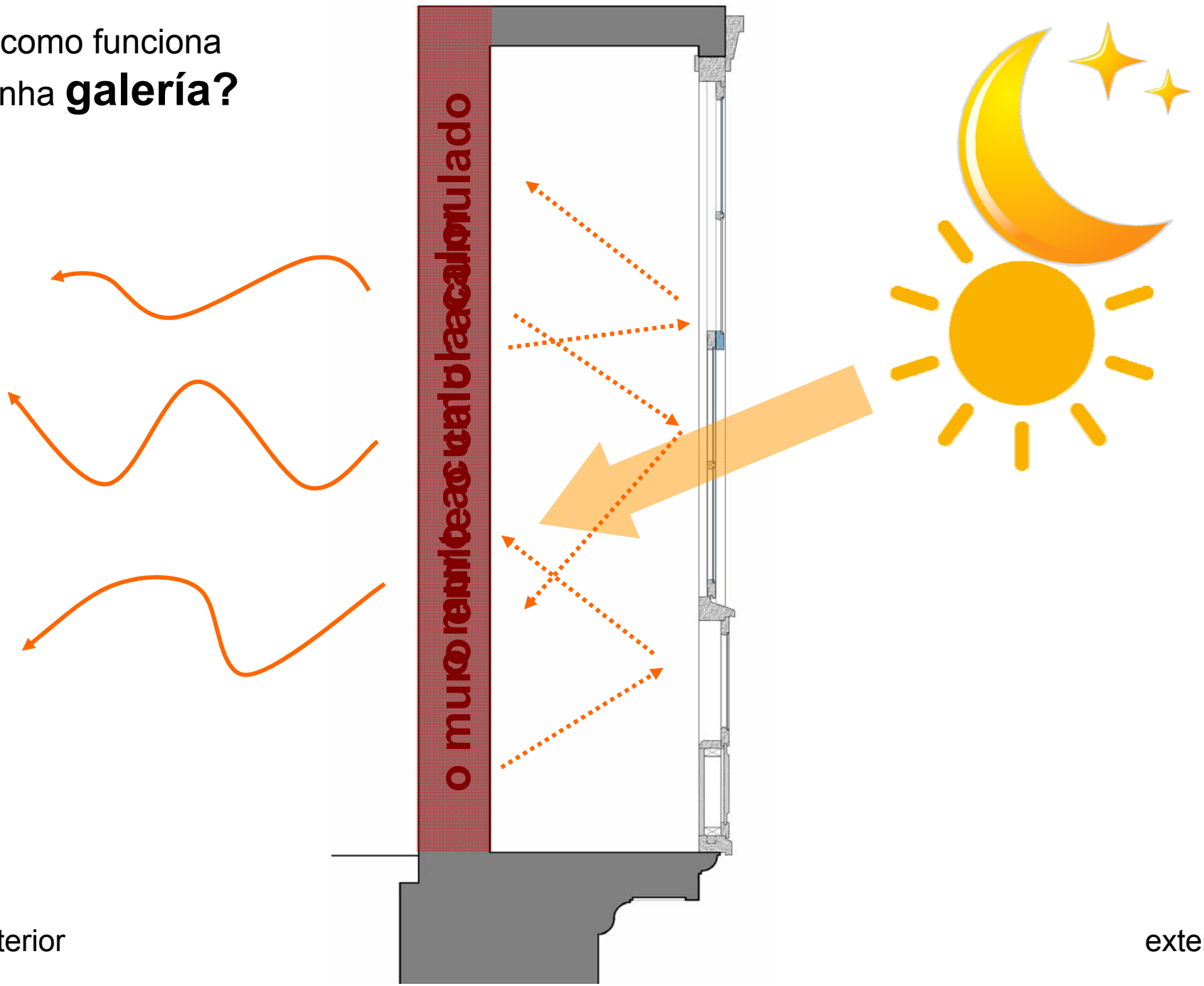
(efecto invernadoiro ó alcance de todos)


DON


espazo non habitable
protección fronte a chuvia da zona superior da fachada
elemento de captación de enerxía solar


Temperatura
Del Aire
Humedad
Relativa
Temperatura
Radiante
Radiación
Solar

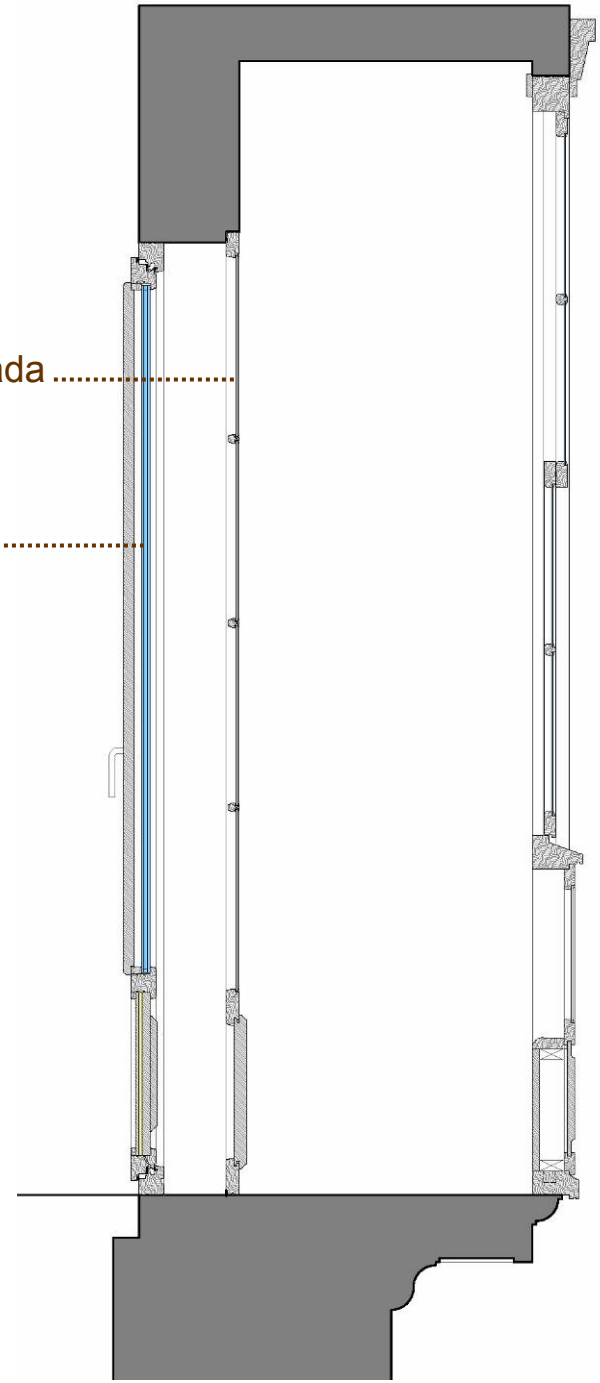
¿como funciona
unha **galería?**

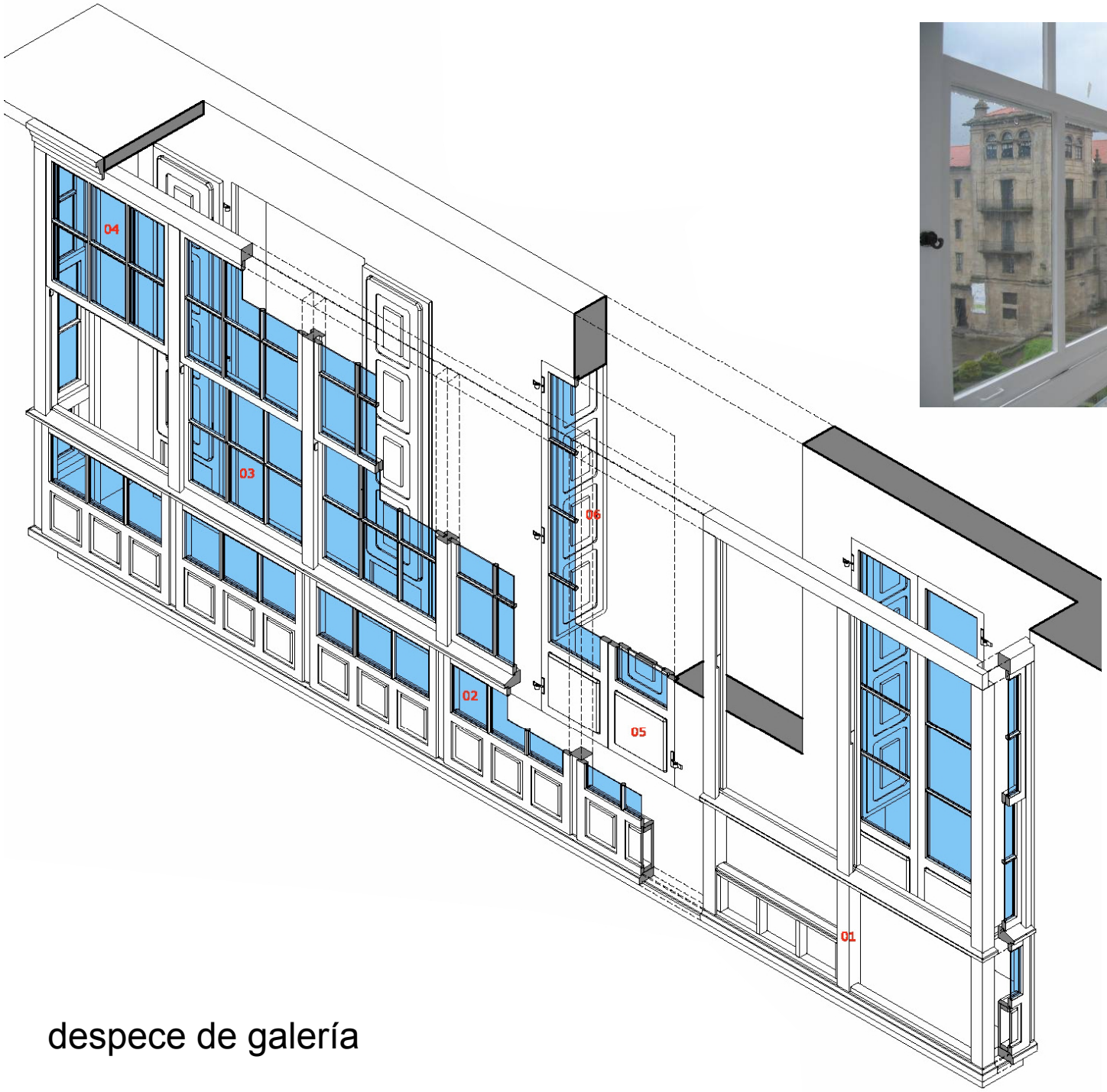


interior

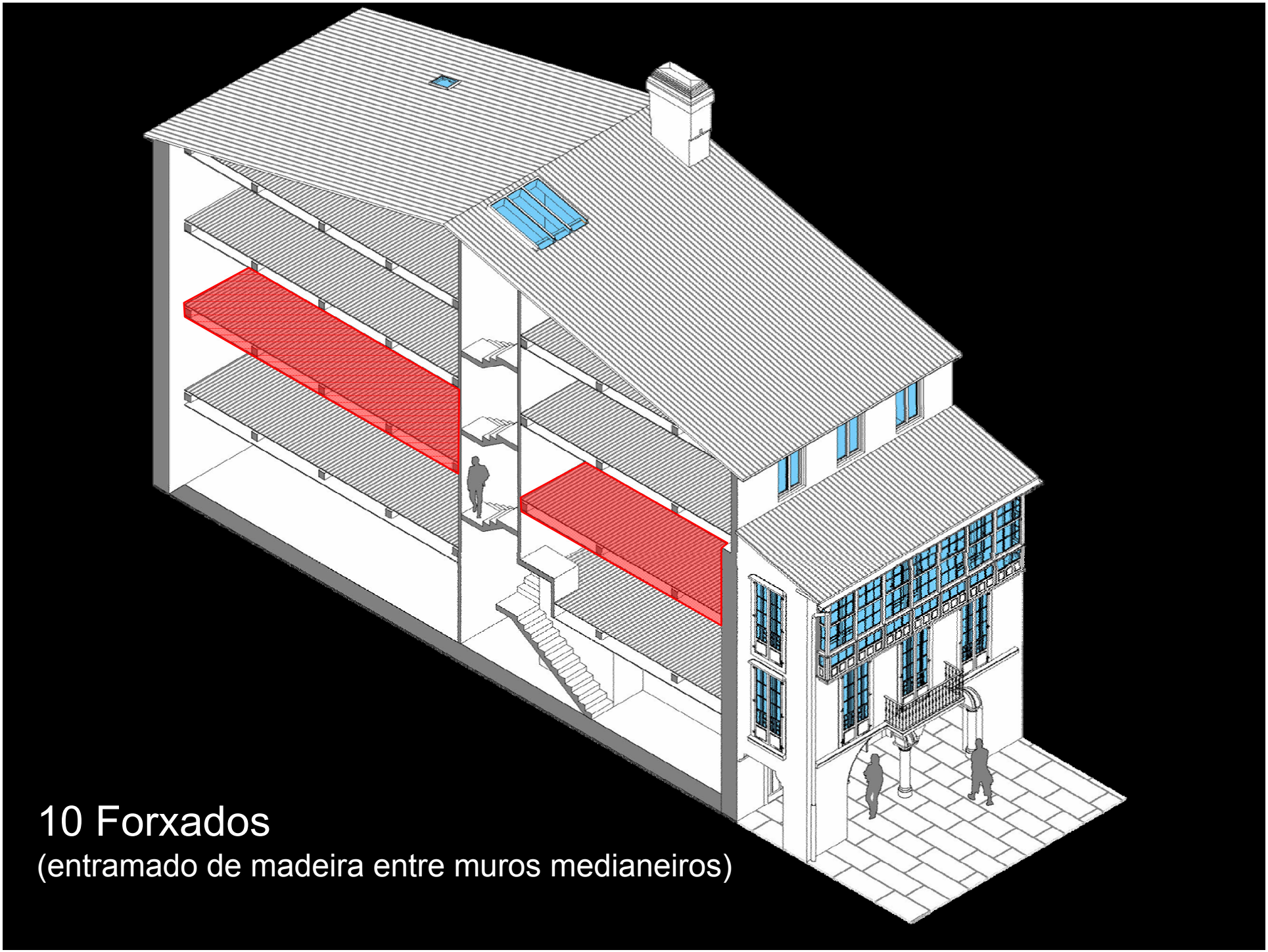
exterior

¿como funciona unha **galería?**





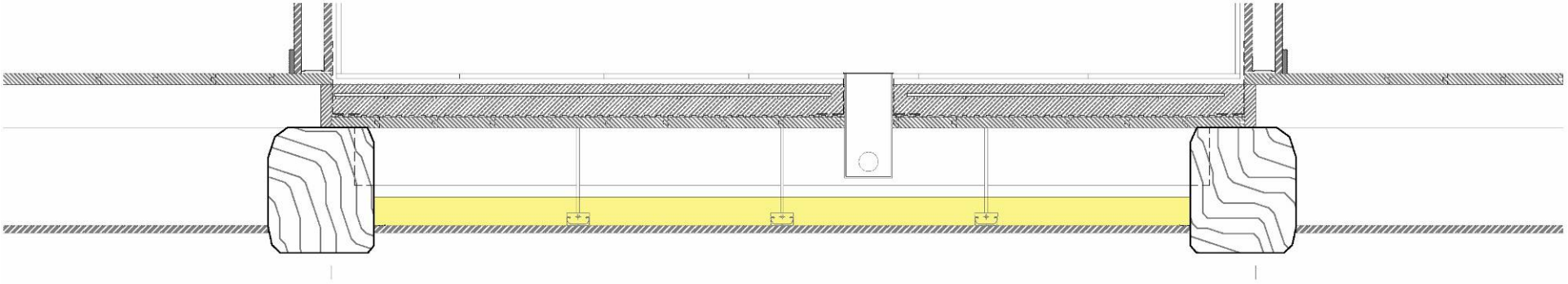
despece de galería



10 Forxados

(entramado de madeira entre muros medianeiros)

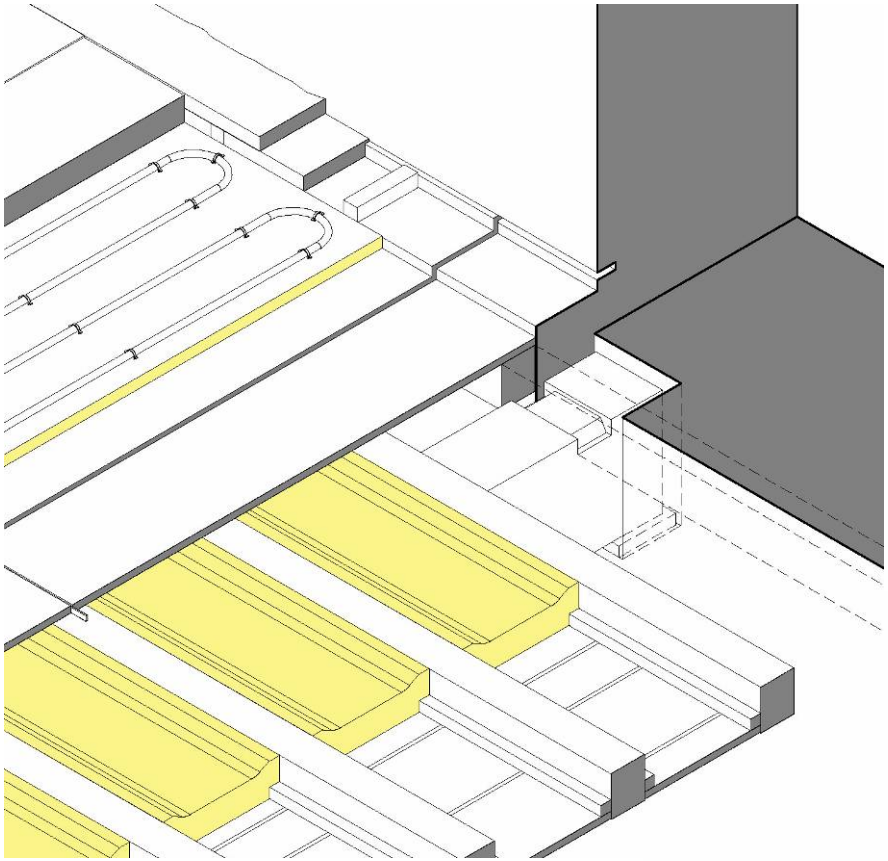
illamento térmico no forxado do baixocuberta

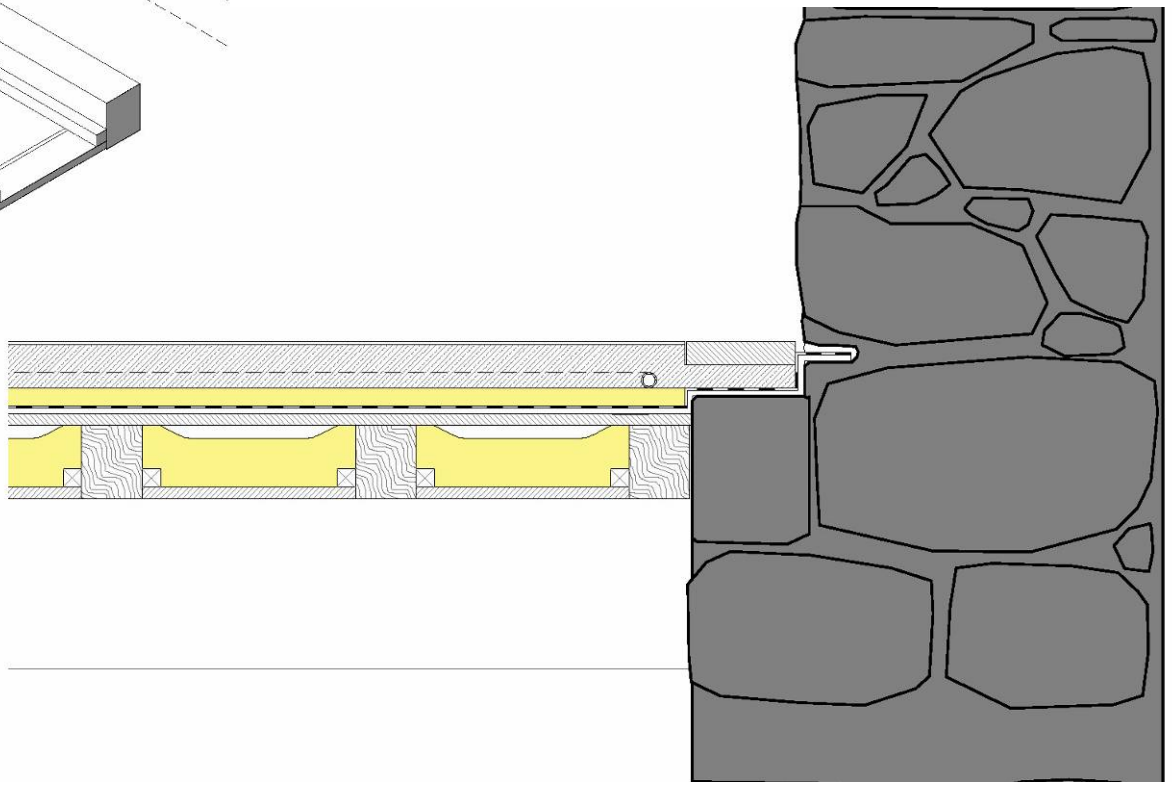


forxado
convencional

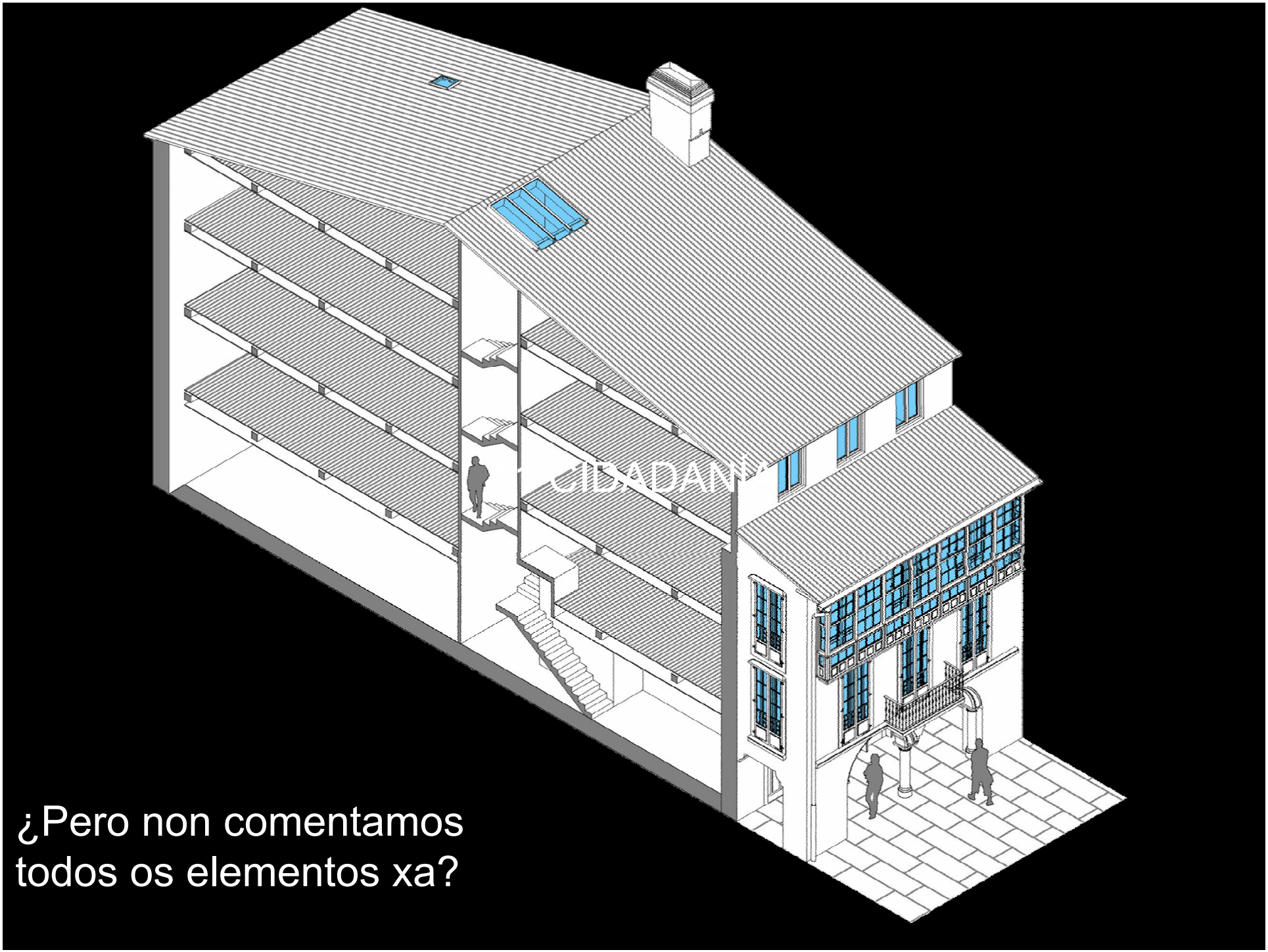
forxado cuarto
húmido con illamento

forxado
convencional





forxado con solo radiante



¿Pero non comentamos
todos os elementos xa?

o cidadán como principal
elemento construtivo
da cidade histórica

Compostela

¡Rehabilita con enerxía!

Conferencia 1.1.

“O catálogo de protección das Arquitecturas e elementos construtivos da cidade histórica de Santiago”

Adrián Martín Prieto. Arquitecto en Aestudio Arquitectura

www.aestudio.es