A guide to
IN ICTU OCULI
IN THE BLINK OF AN EYE
TRANSIENCE AND ETERNITY
IN THE SPANISH GOLDEN AGE

Curated by
Adam Lowe and Charlotte Skene Catling
for Jonathan and Jane Ruffer

This approach to sharing and accessing works of art has been developed by The Auckland Project and Factum Foundation. The recording and the production of facsimiles was only possible as a result of the generosity and vision of the following institutions whose responsibility is to look after and communicate the objects in their care:

Fundación Casa Ducal de Medinaceli
Casa de Pilatos, Seville
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo
Hermandad de la Santa Caridad
Hospital de la Caridad, Seville
Ministerio de Defensa de España
Museo Naval de Madrid
Centro de Estudios Europa Hispánica (CEEH)
Casa de Mesa, Toledo
Ministerio de Cultura y Deporte de España
Museo Sefardí (Sinagoga del Tránsito), Toledo
Museo Nacional de Escultura, Valladolid
Museo del Traje, Madrid
Ayuntamiento de Seville
Real Alcázar, Seville
Hermanas Clarisas Franciscanas
Convento Santa Clara la Real, Toledo
Junta de Andalucía - Consejería de Cultura y Patrimonio Histórico
Filmoteca de Andalucía, Córdoba

The physical facsimiles displayed in this installation were made by Factum Arte and Factum Foundation using the latest input and output technologies. The exhibition invites the visitor to wander through a series of rooms that can be experienced both independently, or as part of a continuous narrative. They can also be accessed online at:
www.factumfoundation.org/ind/spanish-gallery-bishop-auckland

Curated by Adam Lowe and Charlotte Skene Catling
Designed by Skene Catling de la Peña
Research and negotiation of agreements
Carlos Bayod, Casilda Ybarra and Victoria Matatagui
Commissioned by Jonathan and Jane Ruffer
Co-ordination with The Auckland Project Lindsay Stainton

CONTENTS

IN ICTU OCULI
IN THE BLINK OF AN EYE

TRANSIENCE AND ETERNITY
IN THE SPANISH GOLDEN AGE

In the Blink of an Eye is a portal into the mindset that created the most powerful empire of its time. Digital technologies have enabled great works of art to migrate to Bishop Auckland, creating a parallel physical world. The selection of beautiful, diverse, complex, multi-faceted objects made on the Iberian Peninsula by Islamic, Jewish and Christian artist-craftsmen between the discovery of America in 1492 and The Great Plague of Seville (1647-1652) that devastated the city, offers a vision of a world very different from our own.

As you enter this *mirror-world,* issues of originality and authenticity, market and aesthetic value, museum display and classification dissolve. In a traditional museum, both the concept and construct can make you feel like an outsider looking in. Here you are an insider, inhabiting the same world as the objects. This new type of immersive sensory experience was commissioned by Jonathan Ruffer to put the display in the Spanish Gallery into context and to celebrate new forms of sharing and preserving, made possible by digital technology. Most of the objects from which the facsimiles have been made are still owned by the families or institutions who commissioned them. Many can be visited and experienced in Seville and Toledo today, in the places for which they were made.

3

THROUGH THE EYES OF OTHERS

The essential purpose of this installation is to explore the diverse forms of seeing and representation in 16th and 17th century Spain. The intention is to reveal the underlying thinking of that period. Now, as then what we perceive is limited to our own point of view. Paintings and objects allow you to perceive through the eyes and hands of others.

Spain in 1500, when Juan de la Cosa made his world map, was the most powerful society in the world. It was the year in which Charles V was born. His grandparents, Isabella of Castile and Ferdinand of Aragon (the *Reyes Católicos*) had ensured Christian dominance and cemented the power of the Spanish Crown. In 1519 Charles V became the Holy Roman Emperor, Archduke of Austria, King of Spain, Lord of the Netherlands and Duke of Burgundy. His sisters were Queens in France, Portugal, Denmark, Hungary and England. His inheritance of the territories of the 'New World' brought him one step closer to the dream of universal monarchy.

By 1492 the reconquest of the Iberian Peninsula was complete, and the New World opened up to the Spanish. Two years later at the treaty of Tordesillas, the empires of Spain and Portugal divided the newly claimed lands between themselves. From the New World came exotic foods, spices and animals, tobacco, precious stones and gold and silver in unimaginable quantities.

Spain had rivals. The Ottoman Empire controlled most of the Mediterranean and the Middle East, the political ties were fragile and ever-changing, and reformed Protestant communities had undermined Catholic control in northern Europe. The Council of Trent (1545 and 1563) launched the Counter-Reformation throughout the Catholic territories. The Spanish Inquisition was established in 1478, and all Jews except those who had converted to Catholicism (known as '*Conversos*') were expelled in 1492. Muslims faced the same fate: conversion or death. Finally, between 1609 and 1614, the entire population of converted Muslims (the '*Moriscos*') was also forced to leave.

The Great Plague ravaged Spain between 1647 and 1652. Seville, the port to the New World, was the worst affected city where an estimated 46% of the population died. The court had moved to Valladolid at the beginning of the 17th century. The vanitas paintings by Juan de Valdés Leal that close this installation, reflect on the transience of human life through a complex composition of symbolic images while alluding to eternity and rebirth. Valdés Leal referred to these paintings as 'Hieroglyphs of the Afterlife', an allusion to the way ancient beliefs and iconography persist through time, while being adapted to fit contemporary religious doctrines and aesthetics. This can be seen throughout *In the Blink of an Eye*, as cultures, their emblems and artefacts, morph and adopt new meanings but maintain a thread of potent connection to the past.

The Spanish Renaissance coincided with the end of the relatively tolerant co-existence in Spain of Jews, Christians and Muslims. It was a process that began in the early 8th century when the Moors unified the Iberian Peninsula, establishing Al-Andalus. Although there are ideological disputes over just how peaceful this long co-existence - '*la Convivencia*' - really was, the cultural exchange and the lasting impact it had on Spanish character and on the art, architecture, music, literature, song and food was enduring. During hundreds of years of living in such close proximity, many qualities of life and culture quietly merged. Mosques, synagogues and churches shared architectural details and, even today, traditional Spanish dance and song remain a hybrid.

Room 1:

NAVIGATION AND
DISCOVERY

Chart of Juan de la Cosa

Juan de la Cosa (ca.1450-1510)
1500, ink and body colour on parchment with gold and silver highlights, 96 x 183 cm
Museo Naval de Madrid

Recorded and reproduced with permission from the Ministerio de Defensa de España.

Thanks to: Marcial Gamboa Pérez-Pardo (Admiral Director of Museo Naval), María del Carmen López Calderón (Technical Director of Museo Naval) and José María Moreno Martín (Curator at Museo Naval). The facsimile is on temporary loan from the Museo Naval de Madrid.

FACTUM FACSIMILE
The copy was produced from data recorded with Factum's Lucida 3D Scanner (designed by Manuel Franquelo) and composite photography. The surface was 3D printed with a Canon elevated printing system. This was moulded and cast as a thin elastic skin that was printed on a flatbed inkjet printer specially designed by Factum. The skin was applied onto a CNC-milled support with the undulations of the original. The gilding with gold and silver leaf was done by hand.
More information here on how Factum recorded the original and produced the facsimile:
www.factumfoundation.org/pag/juan-de-la-cosa-chart

THE FIRST MAP OF AMERICA

This nautical chart, signed by Juan de la Cosa at Puerto de Santa María in 1500, is the first to depict America. Jay Levenson, head of the Museum of Modern Art's International Program (New York), described it as, 'one of the most important of all cartographic records of early European exploration of the Americas.' Its large size (two sheets of calfskin), artistic richness and comprehensive geographical information, suggests the map may have been commissioned by Bishop Juan Rodríguez Fonseca who, on behalf of the Catholic monarchs, was responsible for the organisation of voyages to the New World.

Juan de la Cosa (c1450-1510) sailed to America seven times and played an important role in three of Columbus' voyages, including the first to the so-called 'New World' of the Americas in 1492. He also sailed with Alonso Ojeda and Amerigo Vespucci. He was one of the first Europeans to set foot in South America and explored Jamaica, Hispaniola, Colombia and Panama. He was killed in 1510 by a poisoned arrow in a skirmish between indigenous communities and Spanish troops.

The map marks both the Tropic of Cancer and the Equator in red. It is the first time they were included on a nautical chart and they are in approximately the correct location. The north-south green Meridian line is believed to represent the line that passes 370 leagues to the West of Cape Verde islands established at the Treaty of Tordesillas in 1494. In this agreement the seafaring empires of Spain and Portugal divided the newly discovered lands outside Europe between themselves. Other cartographers suggest there are two or three different scales coexisting in the map in which case the green line may refer to the limit established 50 leagues West of Cape Verde by Pope Alexander VI in his bull of 1493 or to the line of null magnetic declination observed by Columbus in 1492.

Gog and Magog

The cartographic style of the map is similar to the contemporary charts of the Mediterranean and Western Atlantic, especially those produced in Majorca. The Old World is richly illuminated with human figures, cities, buildings, flags, banners and shields. The representation of the western and southern African coastlines was compiled from Portuguese sources because navigation in the area was forbidden to the Spanish explorers.

'América', projected on a larger scale than the Old World of Europe, Asia and Africa, is painted in green with a single depiction of St. Christopher walking on the water in the Gulf of Mexico. The chart shows the Antilles and northern coast of South America, Brazil, the Cape of Santa María de la Mar Dulce discovered by Vicente Yánez Pinzón, and the coast of North America visited by John Cabot. The map also contains Gog and Magog, the three Magi and the Queen of Sheba.

SEE ALSO
A podcast about discoveries from the New World brought back to Spain: 'Food, art and recipes: 16th century musings with Adam Lowe and Charlotte Skene Catling' at www.luxeat. com/blog/food-art-and-recipes-16th-century-musings-with-adam-lowe-and-charlotte-skene-catling/

FURTHER READING
A History of the World in Twelve Maps, 2012, Jerry Brotton, ISBN: 9780141034935
This Orient Isle, 2016, Jerry Brotton, ISBN: 9780241004029
The Catalogue of Shipwrecked Books: Christopher Columbus, His Son, and the Quest to Build the World's Greatest Library, 2019, Edward Wilson-Lee, ISBN: 9781982111410

RELEVANT LINKS
Fundación Museo Naval: fundacionmuseonaval.com

The Good Shepherd

Unknown artist, early Christian (possibly late 4ᵗʰ century AD)
Marble, 32 x 35 x 84 cm
Casa de Pilatos, Seville

Recorded and reproduced with permission from the Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE

The copy was produced from data recorded with photogrammetry. It was 3D printed using a stereo-lithographic printer (SLA) at Materialise in Belgium, moulded and cast in a synthetic marble matching the original.

For more information about the recording of the original and the production of the facsimile, please visit:
www.factumfoundation.org/pag/casa-de-pilatos
For more information about the wallpaper, please visit:
www.factumfoundation.org/ind/spanish-gallery-bishop-auckland

THE GOOD SHEPHERD

Marble statue of the 'kriophoros' shepherd carrying a lamb, c. 300-350, from the Catacombs of Domitilla, Vatican Museums. Photograph by Carole Raddato

The marble figure of *The Good Shepherd* is part of the collection of Pedro Afán de Ribera, 1ˢᵗ Duke of Alcalá de los Gazules (1509-1571), assembled in Naples when he was Viceroy of the city. He built the Casa de Pilatos in Seville to house his antique and Renaissance sculptures and this piece was probably a gift from Pope Pius V, a renowned collector of classic antiques. It is the only piece included here that was not made on the Iberian Peninsula and demonstrates the fluidity that existed between cultures and religions in Europe at the time.

The image of the Good Shepherd has traditionally been interpreted as one of the main images of Christian iconography. But within pre-Christian traditions, Hermes Kriophoros carries a sacrificial ram and was a popular figure in the late-Roman period. This sculpture is thought to have been made in a Roman workshop during the Constantine period. Its inclusion at the start of the exhibition links pagan and Christian beliefs and reveals the complexity of Europe when Spain, the Ottoman Empire, the Holy Roman Empire, the Papacy, the French and the English were all seeking power and influence.

RELEVANT LINKS
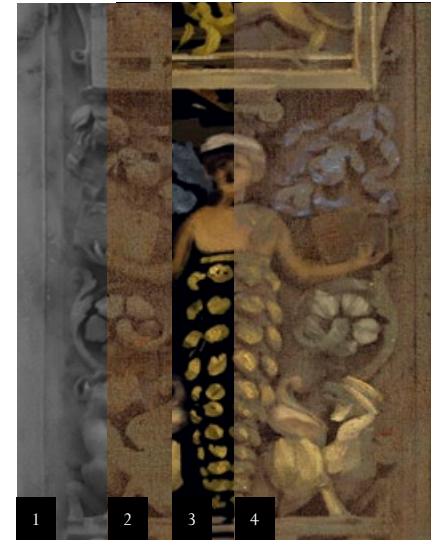Fundación Casa Ducal de Medinaceli: www.fundacionmedinaceli.org

WALLPAPER

Production process from left: photograph, application of texture, addition of brushmarks and merging of all layers

Production process from left: photograph, application of texture, addition of brushmarks and merging of all layers

Sepulchre of Doña Catalina de Ribera, Pace Gazini, 1521, Seville

The wallpaper design was conceived as a composite with many influences and ingredients. It is based both on patterns produced by the wall coverings made by the *Real Fábrica de Papeles*, Madrid, in the 18ᵗʰ century, and the frescos designed to mimic painted cloth on the lower walls of the Sistine Chapel. The artwork was developed using photographs of actual cloth and architectural details that have been digitally reworked. The pilasters are based on those of the Sepulcro de Doña Catalina de Ribera (1521) by the Genovese sculptor Pace Gazini, made for the Monastery of Santa María de las Cuevas (also known as Monasterio de la Cartuja), Seville, where it can be seen today.

MAKING THE WALLPAPER

Each element of the composition is 'overpainted' using brushmarks borrowed from Diego Velázquez. In particular, the following paintings now held in British collections; *An Old Woman Cooking Eggs* (National Galleries of Scotland, Edinburgh), and *The Waterseller of Seville* and

Two Men Eating at Humble Table (Apsley House, London). Velázquez' brushmarks mimicking stone carving and material decay also form the frieze, cornice and architectural moulding. The delicate border of golden thread is taken from embroidery found in the Palio de Nuestra Señora del Valle, Seville while the heraldic shields are from different '*cofradías*' (religious organisations associated with different churches) that are paraded during Semana Santa.

SEE ALSO

www2.ual.es/ideimand/sepultura-de-dona-catalina-de-ribera-1520
www.emblems.arts.gla.ac.uk/alciato/books.php?id=A31a
theframeblog.com/2020/11/19/fruit-flowers-foliage-the-symbolism-of-renaissance-frames

FURTHER READING

Dictionary of subjects & symbols in art, 1974, James Hall
Christian symbology, 2001-20, Doug Gray, www.christiansymbols.net

COPIED BY THE SUN
THE IMPORTANCE OF IMAGES

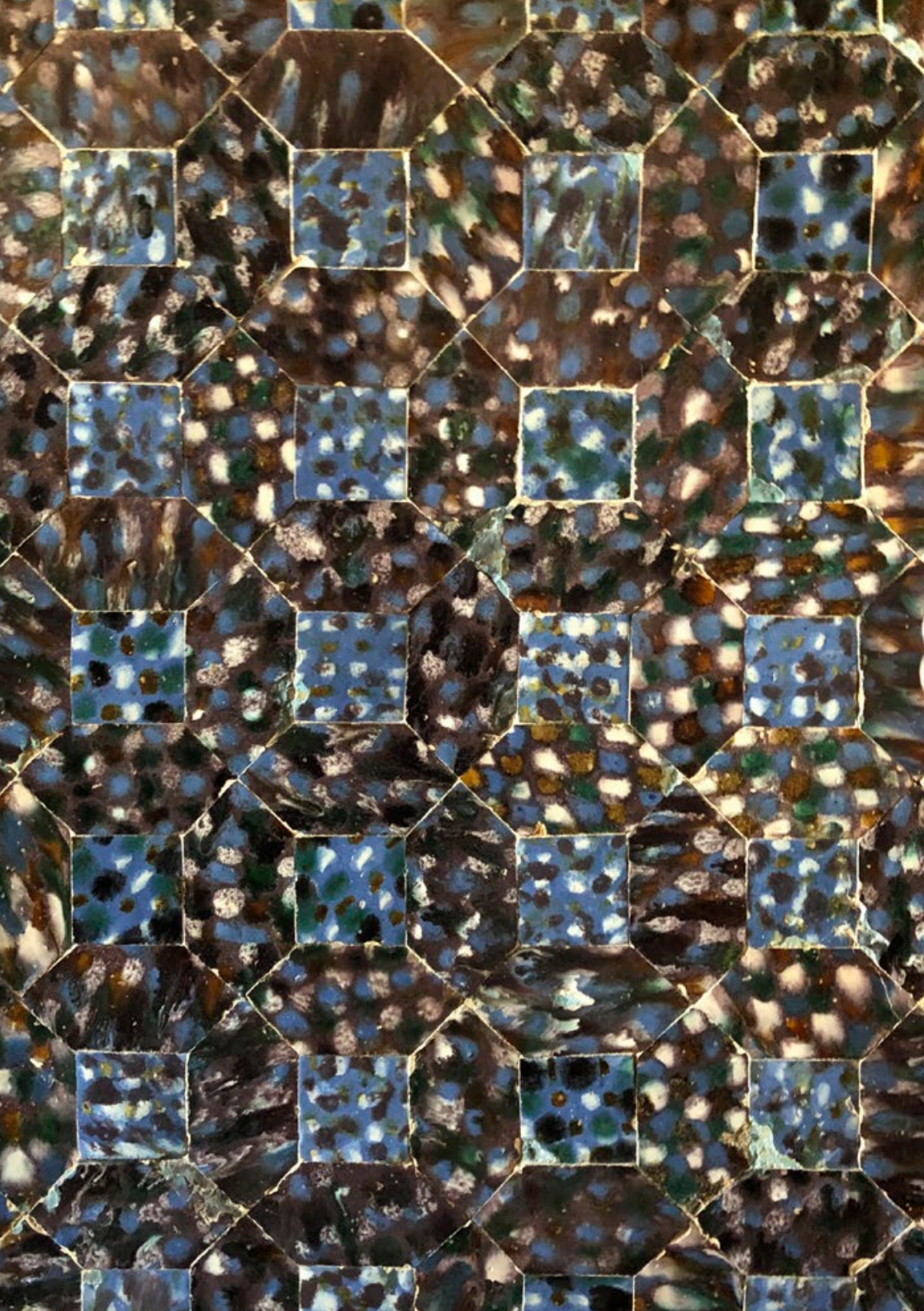

Photographic Archive of the Universidad de Navarra

The photograph of the Sepulchre, taken in 1847 by Nicolaas Henneman, is one of the first photographs of a work of art. It was used as a reproduction in a supplement to the first edition of *The Annals of the Artists of Spain* by Sir William Stirling Maxwell, published in 1848, This volume of illustrations 'copied by the sun', printed in an edition of 50 copies, is the world's first photographically illustrated book on art. It contains 'Talbotype' prints of sculptures, paintings, drawings and engravings. Faulty impressions could be exchanged by writing to Mr. Henneman.

Invented by William Henry Fox Talbot in the 1830s, the 'Talbotype' or 'Calotype' (beautiful impression) technique is the result of a sheet of thin paper coated with silver iodide exposed to light in a camera obscura; those areas hit by light became dark in tone, yielding a negative image that is later printed as a positive on paper.

SEE ALSO

Copied by the Sun. Talbotype Illustrations to the «Annals of the Artists of Spain», 2016, Sir William Stirling Maxwell, Centro de Estudios Europa Hipánica and Museo Nacional del Prado

talbot.bodleian.ox.ac.uk/2016/11/11/copied-by-the-sun-photography-invades-art-history/

Room 2:

MATERIAL
TRANSFORMATION

WALL TILES
THE SUMMER SEASON EQUIVALENT OF TAPESTRIES

3D shaded render of a '*cuerda seca*' tile

3D shaded render of a '*cuenca*' tile

Glazed tiles from Casa de Pilatos

Ceramic Tiles

Diego and Juan Pulido, Triana, Seville
1538, glazed ceramic
Casa de Pilatos, Seville

Recorded and reproduced with permission from the Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The facsimile tiles were produced from data recorded using composite photography and Factum's Lucida 3D Scanner. The surface was 3D printed with a Canon elevated printing system to recreate the relief surface of the '*cuenca*' process. This was moulded, cast in an acrylic resin, gesso coated and printed on Factum's flatbed inkjet printer. The final layer of transparent varnish was applied by hand.
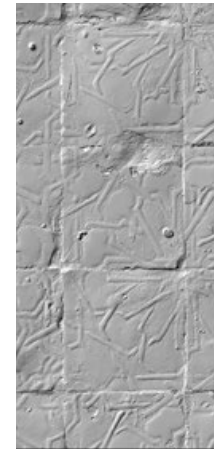More information about the recording of the original and production of the facsimile:
www.factumfoundation.org/ind/spanish-gallery-bishop-auckland
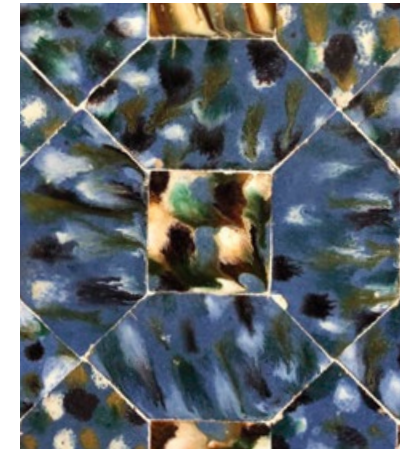www.factumfoundation.org/pag/casa-de-pilatos

The extraordinary glazed ceramic tiles that decorate the walls in the Casa de Pilatos in Seville have a defining presence in the Palace and represent a peak in the formal expression of the '*cuenca*' method of tile making. This technique was developed in Seville and used in both religious and civil buildings throughout the 1500's. These tiles shown here were produced in Diego and Juan Pulido's workshop in Triana, Seville, in 1538.

The two techniques used to make ornamental wall tiles in Seville were the '*cuerda seca*' and '*cuenca*' methods. The '*cuerda seca*' is earlier and ideal for making rectilinear geometric patterns like *Mudéjar* lacework. This method uses string to subdivide the tile onto which the different coloured glazes were poured. During the firing the string burns away, leaving a relatively uniform surface of different colours. At Casa de Pilatos, cuerda seca tiles are found in one of the earliest rooms in the Palace, the Capilla de la Flagelación.

Spanish 'Admiral' Heraldic Carpet, c. 1429-1437
Philadelphia Museum of Art: The Joseph Lees Williams Memorial Collection, 1955, 1955-65-21

Glazed tiles from Casa de Pilatos

The *cuenca* technique (also called '*de arista*' or '*de labores*') appeared with a desire to make decorations less geometrically rigid, and more similar to textiles, fabrics and embroidery. The mould contained a negative sunken impression so that the clay tile ends up with positive raised lines for separating the coloured glazes. The first cuenca moulds were carved in wood and later made in metal which produced cleaner and sharper detail in the finished tiles. The mechanisation of the process is part of its aesthetic appeal. In their contract, Diego and Juan Pulido committed to delivering 2,000 tiles a week, illustrating the scale of production possible at that time.

The third type of tile here has no prescribed relief that defines a clear pattern. Fluid glazes allow colours to glide over irregular clay surfaces creating beguilingly spontaneous abstractions. Games of shifting figure-ground and subtle variations in the way colours are

combined all contribute to animating the surface through creating dynamic spatial relationships. This, together with the brilliance of the coloured glazes, the mysterious axonometric projected language of the border tiles and the natural resistance of ceramics to aging, creates an overall effect that is curiously modern.

Juan Manuel Albendea Solís, Director of Fundación Casa Ducal de Medinaceli has described the tiled walls of Casa de Pilatos as the 'summer season equivalent of tapestries'. In Sevillian palaces like the Casa de Pilatos, the rooms at the upper levels were used in winter because they were warmer and drier, the walls covered in tapestries to add a further richness and protection from cold. In the summer, life moved to the ground floor to escape the heat for the freshness of the fountains and gardens. The walls of the ground floor are covered in tiles that are beautifully cool to the touch, their fluid glazes and flickering games of kaleidoscopic colour in harmony with the gentle sounds of the fountains. The winter tapestries were the inspiration for the summer tiles, with very similar modular patterns and heraldic insets A good example can be seen in the Philadelphia Museum of Art.

SEE ALSO
3D scanning of Casa Pilatos – Columbia and Factum:
www.factumfoundation.org/pag/casa-de-pilatos

RELEVANT LINKS
Casa de Pilatos: en.fundacionmedinaceli.org/monumentos/pilatos/
Columbia GSAPP: www.arch.columbia.edu

Floor Tiles

Made by Factum Arte
The floor is based on the traditional terracotta tiles commonly found in Seville and other parts of Spain

The tiles in this room were recorded in 3D with photogrammetry at the Casa de Pilatos, Seville with the permission of Fundación Casa Ducal de Medinaceli. The data was used to CNC-mill, mould and cast in simulated terracotta to create an authentic floor covering.
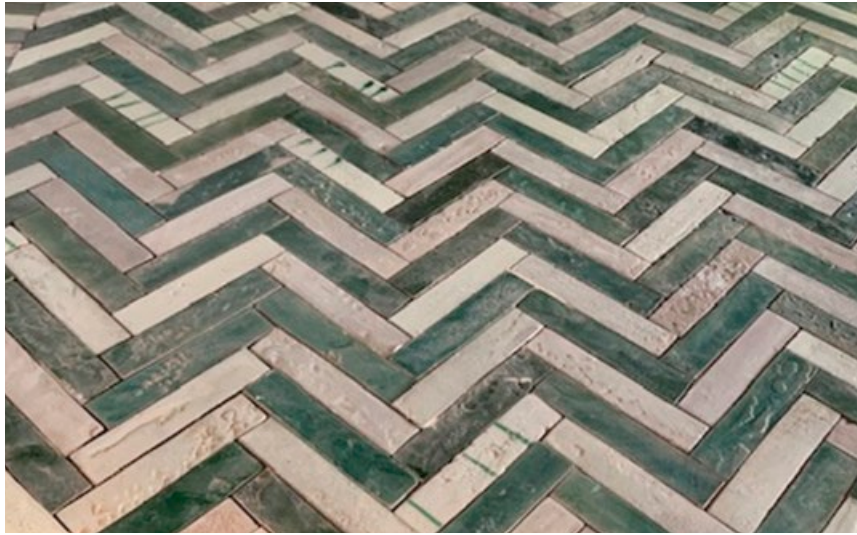
Ceiling

A new design by Factum Arte inspired by traditional Spanish *Mudéjar* timber ceilings of the 15th-17th centuries. The installation was designed to incorporate the existing timber trusses of the original roof structure

The ceiling is composed of a language of geometric patterns that start from a basic module and unfold into an infinity of shapes. The basic element is the band-like lace that creates the linear pattern from which the decoration is formed. The repeating geometry forms star-like encounters. According to Spanish Architect and restorer Enrique Nuere the complex patterns are made using only three right angled set squares.

Room 3:

LAPIDARIUM OF
YESERIAS

Floor Tiles

Made by Cerámicas Fombella, Seville, 2020
Traditionally glazed, handmade ceramic floor tiles

Reproduced with approval from the Fundación Casa Ducal de Medinaceli.

Thanks to: Lola Freire Fernández, Juan Antonio Gómez and Patricia Medina.

The design is based on the rectangular green and white tiles arranged in a herringbone pattern in the Capilla de la Flagelación in Casa de Pilatos, Seville. The colour, glaze and irregular surface were carefully matched through an extended process of testing and making samples.

Mudéjar lacework ceiling

Late 15th **century, polychromed carved wood**
Casa de Mesa, Toledo
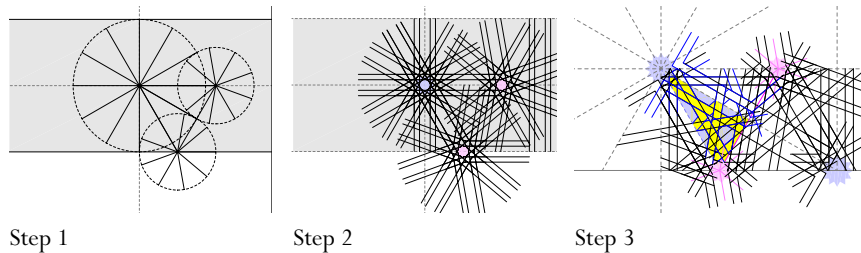
Courtesy of Centro de Estudios Europa Hispánica (CEEH).

FACTUM FACSIMILE
The facsimile ceiling was produced from data recorded using composite photography and photogrammetry. An accurate 3D model of its shape, surface and colour was generated. Using this information as a source, the design was re-drawn following the same geometric rules that were used to create the original pattern. Knowing only two dimensions (the overall size of the ceiling and the width of the lace strip) it was possible to generate the complete layout as a vector drawing, which was used to fabricate the different sections. The timber was laser cut, CNC-milled, gesso-coated and printed on Factum's flatbed inkjet printer. The ceiling has significant hand finishing and surface painting.
More information about the recording of the original and production of the facsimile:
www.factumfoundation.org/ind/spanish-gallery-bishop-auckland

LACEWORK CEILING

Step 1　　　　　　Step 2　　　　　　Step 3

This ceiling can be found in a room adjacent to *Mudéjar* hall in Casa de Mesa, Toledo. The original ceiling is a modular design formed by five repeating sections. The ceilings are the result of an approach to pattern-making that uses geometric principles to generate patterns of great complexity and beauty, characteristic of Islamic and post-Islamic decoration in Spain.
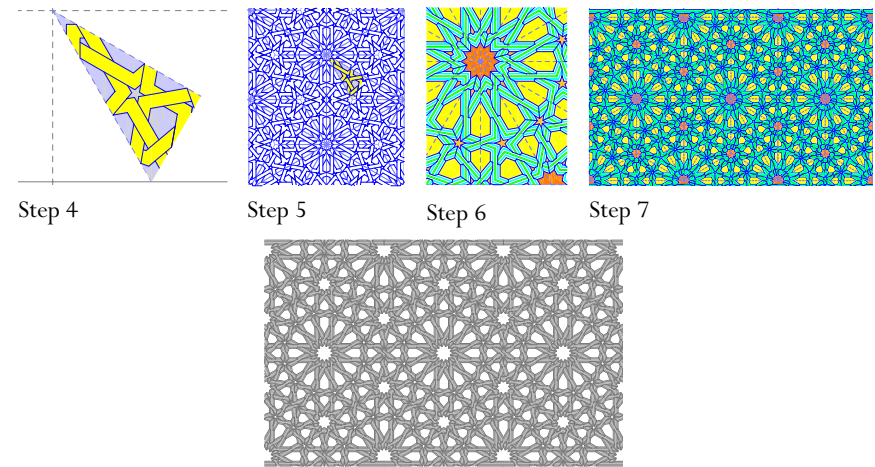
The following images, prepared by Carlos Bayod, reveal the underlying structure of the ceiling derived by Factum from the principles of *Mudéjar* design and made using digital technologies.

Step 1: The total size of the original ceiling is approximately 750 x 300 cm, divided into five similar sections.
The first step consists of placing a 12-pointed star at the centre of a section. Then, at the intersection of one of the 12 radii, with the edge of the section, a 9-pointed star is placed. The position of the other stars is determined by the resulting intersections of specific extended radius with the edges of the sections.
Step 2: To adapt to the dimensions of the room at the Spanish Gallery, only the three central sections are reproduced. Once the main stars are placed, each radius is converted onto a double-lace, which will be the basic decorative motif.
Step 3: A careful observation of the ornamental design results in a system of intersections among the laces that will define the basic module for the ceiling.

Step 4　　　　Step 5　　　　Step 6　　　　Step 7

Step 4: The resulting basic module after refining the design, with the laces intersecting above or below each other, in alternation. This is the minimum unit of ornament that will compose the full area of the ceiling.
Step 5: Full development of the ceiling through the repetition and rotation of the basic triangular module.
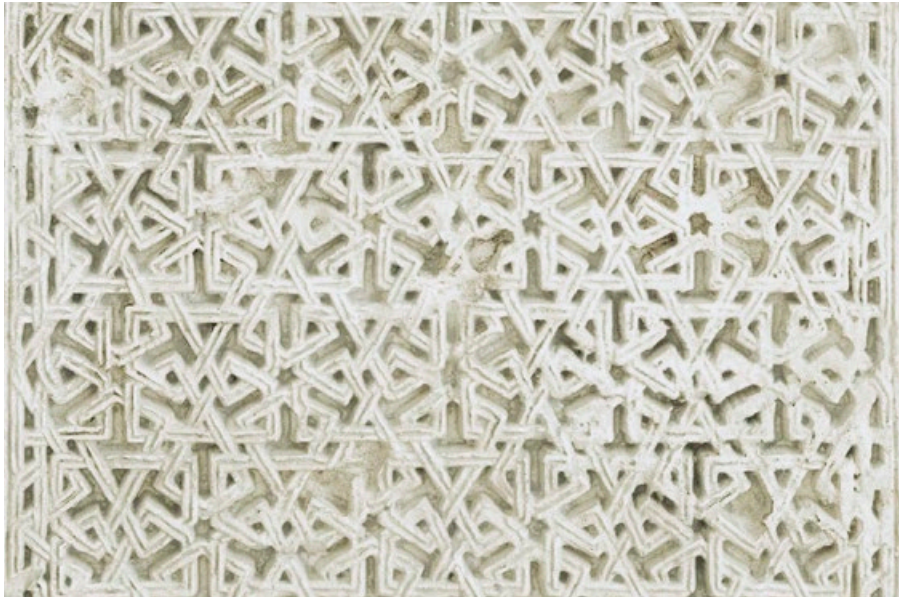**Step 6:** Based on the photogrammetric data of the original ceiling, the inner lines that mark the divisions within the laces are drawn, making sure that the intersections work fine for all specific cases throughout the ceiling. The resulting stars and polygons between the laces are filled with hatches so they become areas for future extrusion and modelling. Each line has a specific width assigned, in anticipation to the CNC-milling.
Step 7: The final system of lacework, stars and polygons in between is complete, ready for 3D modelling and fabrication. The final adaptation to the specific proportions of the room is carried out as needed. The resulting pattern resembles a geometric abstraction of the stars in the sky.

YESERÍAS

Yeserías are made using two basic techniques: in-situ carving or casting. The hand carving technique involves tracing a design onto an applied stucco layer and cutting-out with iron tools. This is known as the '*naqch hadida*' technique. It was typical during the first period of Nasrid artistry (1232-1314). Casting, on the other hand, allows for more elaborate designs that can be replicated. It was introduced under the rule of Muhammad III (1302-1314), using wooden or plaster moulds.

Yeserías began to appear in Spain following the conquest of the Iberian Peninsula by the Umayyad dynasty in the 8th century CE. Evidence of carved plasterwork can be found much earlier in the Mediterranean region (e.g. in Egypt, Greece and Italy, etc.), but only during the Sassanid empire (3rd century CE) did the ornate features of the Arabic plasterwork develop to form geometric, floral, and symmetrical plant shapes.

With the continued presence of Moorish power on the Iberian Peninsula, the ornate plaster carvings were adopted by both Jewish and Christian communities. The most notable examples of *yesería* works arose during the Nasrid dynasty (1232-1492) when the demand was high and the technical skills of the craftsmen were at their peak. The *Mudéjar yesería* that cover the Palace of Pedro I in the Alcazar reveal complex interconnections that existed at all levels of society at the time. The word '*Mudéjar*' literally means subjugated, a term coined in the nineteenth century by José Amador de los Ríos y Serrano to refer to the Muslims who remained in Al-Andalus after the Reconquista.

Yesería

Yesería (ancient Greek γύψος, Latin *gypsum* and *yeso* in Spanish) is a term that describes carved or moulded plasterwork used for decorative purposes. *Yeserías* embody a specific aesthetic that arose during the cohabitation of Muslim, Jewish and Christian communities in Spain. The fusion of various cultural identities into a decorative art form is a critical feature of Spanish creativity that evolved to reflect political and religious change.

The *yeserías* displayed here are from three sites in Toledo; the Convento de Santa Clara (carved in an Islamic scholar's house during the Moorish control), from the Sinagoga del Tránsito (before the expulsion of the Jewish community) and *Mudéjar* carvings in the Casa de Mesa. The remaining *yeserías* are from the Palace of Pedro I in the Alcázar and Casa de Pilatos in Seville.

For more information about the recording of the production of the *yeserías*, visit: www.factumfoundation.org/pag/yeserias

RELEVANT LINKS
Museo Sefardí (Sinagoga del Tránsito): culturaydeporte.gob.es/msefardi/en/museo/museoenmonumento.html
Real Alcázar de Sevilla: www.alcazarsevilla.org/en
Casa de Mesa, Centro de Estudios Europa Hispánica (CEEH): www.ceeh.es/en
Casa de Pilatos: en.fundacionmedinaceli.org/monumentos/pilatos/

YESERÍA 1

Images from the blog *Toledo Olvidado* by Eduardo Sánchez Butragueño:
toledoolvidado.blogspot.com

Yesería 1

14th century, carved plaster, 100 x 135 x 3 cm
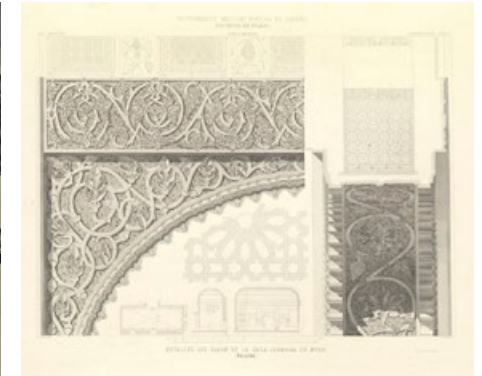Casa de Mesa, Toledo

Courtesy of Centro de Estudios Europa Hispánica (CEEH).

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

The building known as 'Casa de Mesa' is located in the historic centre of Toledo, at the highest part of the city near the Church of San Román (currently Museo de los Concilios y la Cultura Visigoda). The main treasure of Casa de Mesa is its 14th century *Mudéjar* hall which contains a unique arched entrance decorated with *yeserías* that are still in good condition. Owned by noble families since its origin, the house has hosted historic figures including Saint Teresa of Ávila who was a guest between 1562 and 1569. The *Salón* (hall) is all that remains of a sumptuous *Mudéjar* palace built a few years after 1357 (the same year that the Sinagoga of el Tránsito was built). The decoration is characteristic of Toledo's *Mudéjar* style, consisting of a background of double palm leaves from which naturalistic, Gothic flora of oak and vine leaves stand out. A diversity of ornamental motifs of different origins coexist in this monumental arch.

RELEVANT LINKS
Casa de Mesa, Centro de Estudios Europa Hispánica (CEEH): www.ceeh.es/en

Yesería 2

14th century, carved plaster, 47 x 35 x 3 cm
Casa de Mesa, Toledo

Courtesy of Centro de Estudios Europa Hispánica (CEEH).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 3

14th century, carved plaster, 90 x 90 x 2.5 cm
Casa de Mesa, Toledo

Courtesy of Centro de Estudios Europa Hispánica (CEEH).

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 4

14th century, carved plaster, 244 x 60 x 8 cm
Museo Sefardí (Sinagoga del Tránsito), Toledo

Recorded and reproduced with permission from the Ministerio de Cultura y Deporte.

Thanks to: Carmen Álvarez Nogales (Director of Museo Sefardí) and José Redondo Cuesta (Universidad de Castilla-La Mancha).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

YESERÍA 4

Detail of the *yesería* from the Sinagoga del Tránsito merging the heraldic shield of Castilla y León and hebrew text

The Synagogue of Samuel ha-Leví, or Sinagoga del Tránsito (now part of the Museo Sefardí) is located in the old Jewish quarter of Toledo and is considered the most beautiful and best-preserved medieval synagogue in the world. Built between 1355 and 1357, it is named after Samuel ha-Leví Abulafia, an influential figure in 14th century Spain and Treasurer to Pedro I, King of Castilla y León (1350-1369). At this time the construction of synagogues was prohibited, but King Pedro wanted to acknowledge the support shown towards the Crown by the Jews.

In El Tránsito, heraldic themes are merged with Hebraic texts. A running frieze of text exalts the figures of King Pedro I, Samuel ha-Leví (described as a man fighting for peace and a great builder) and his architect, Rabbi Don Mayr. The frieze sits beneath the coats of arms of Castilla y León, set into ornate decorations of vines and leaves over geometric patterns. The exaltations are interspersed with Davidic psalms and praises to Yahweh, in gratitude for the protection they have received. The north wall, known as the 'east heckhal', is richly decorated with arabesque forms.

RELEVANT LINKS
Museo Sefardí (Sinagoga del Tránsito): culturaydeporte.gob.es/msefardi/en/museo/museoenmonumento.html

Yesería 5

14th century, carved plaster, 90 x 178 x 6 cm
Museo Sefardí (Sinagoga del Tránsito), Toledo

Recorded and reproduced with permission from the Ministerio de Cultura y Deporte.

Thanks to: Carmen Álvarez Nogales (Director of Museo Sefardí) and José Redondo Cuesta (Universidad Castilla La Mancha).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 6

14th century, carved plaster, 160 x 113 x 5 cm
Museo Sefardí (Sinagoga del Tránsito), Toledo

Recorded and reproduced with permission from the Ministerio de Cultura y Deporte.

Thanks to: Carmen Álvarez Nogales (Director of Museo Sefardí) and José Redondo Cuesta (Universidad Castilla La Mancha).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 7

14th century, carved plaster, 240 x 60 x 8 cm
Museo Sefardí (Sinagoga del Tránsito), Toledo

Recorded and reproduced with permission from the Ministerio de Cultura y Deporte.

Thanks to: Carmen Álvarez Nogales (Director of Museo Sefardí) and José Redondo Cuesta (Universidad de Castilla-La Mancha).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 8

1356 -1366, carved plaster, 115 x 131 x 5 cm
Palace of Pedro I, Real Alcázar, Seville

Recorded and reproduced with permission from the Real Alcázar de Sevilla and the Ayuntamiento de Sevilla.

Thanks to: Román Fernández-Baca (Alcaide of Real Alcázar de Sevilla) and Isabel Rodríguez Rodríguez (Director of Real Alcázar de Sevilla).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

YESERÍA 8

Yesería in the Palacio del Rey Don Pedro, Real Alcázar de Sevilla. *Izz li-mawlana al-sultan don birdu ayyadahu Allah* (Glory to our lord the sultan Don Pedro, so help him God)

The plasterwork repeats the Arabic phrase *izz li-mawlana al-sultan don birdu ayyadahu Allah* (Glory to our lord the sultan Don Pedro, so help him God), asserting Pedro I's legitimacy through epigraphic inscriptions and heraldic iconography. Pedro I, a Catholic King, was using the name of Allah, written in Kufic script by Islamic craftsmen, to enforce his earthly power.

The calligraphic style of Arabic used in these *yeserías* originated in the city of Kufa in Iraq and spread across Europe alongside the expansion of Islam and the Umayyad conquest of Spain (711 CE). It is sacred in character, as it was used to depict the Koranic text in mosques and Islamic manuscripts, identifiable in its use of square and angular lines with bold spherical forms embedding the text into the decorative embellishments.

The Palace of Pedro I, built between 1356 and 1366 is a masterpiece of *Mudéjar* art and simultaneously, one of the most significant monuments of medieval architecture in Spain. The Palace is structured around two courtyards, the Patios de las Muñecas and de las Doncellas, which distinguished the monarch's private and public spheres. The Christian building was constructed on top of the remains of the Almohad structures, demolished and overbuilt as a political statement.

Today, Pedro I is celebrated as a patron of *Mudéjar* style associated with the Islamic culture of Al-Andalus. He developed a close friendship with Sultan Muhammad V, ruler of the Caliphate of Granada and his court was culturally diverse, with Jewish Ministers including Samuel ha-Leví.

RELEVANT LINKS
Real Alcázar de Sevilla: www.alcazarsevilla.org/en

Yesería 9

1356 -1366, carved plaster, 55 x 178 x 5 cm
Palace of Pedro I, Real Alcázar, Seville

Recorded and reproduced with permission from the Real Alcázar de Sevilla and the Ayuntamiento de Sevilla.

Thanks to: Román Fernández-Baca (Alcaide of Real Alcázar de Sevilla) and Isabel Rodríguez Rodríguez (Director of Real Alcázar de Sevilla).

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 10

Before 1395, carved plaster, 154 x 77 x 5 cm
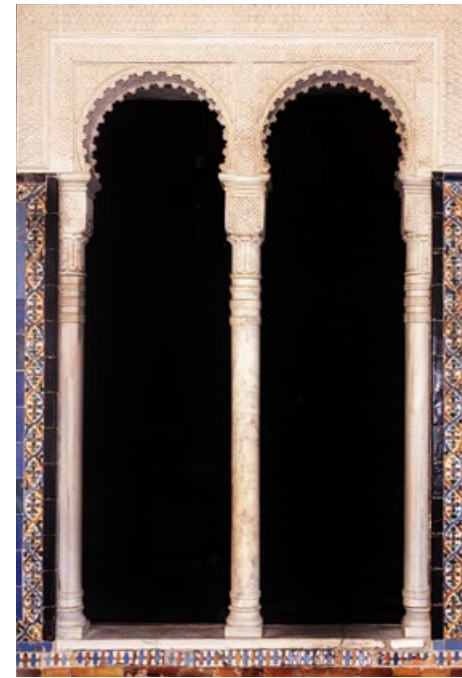Patio de los Naranjos, Convento de Santa Clara la Real, Toledo

Thanks to: Hermanas Clarisas Franciscanas, who granted permission for its recording and reproduction.

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was CNC-milled into polyurethane, moulded and cast in plaster.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Yesería 11

Mullioned columns with pseudo-Nasrid capitals from Casa de Pilatos, Seville.
Installed by the Duchess of Denia in 1861, in the 'Orientalist' style of the time
Carved plaster

Recorded and reproduced with permission from the Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).
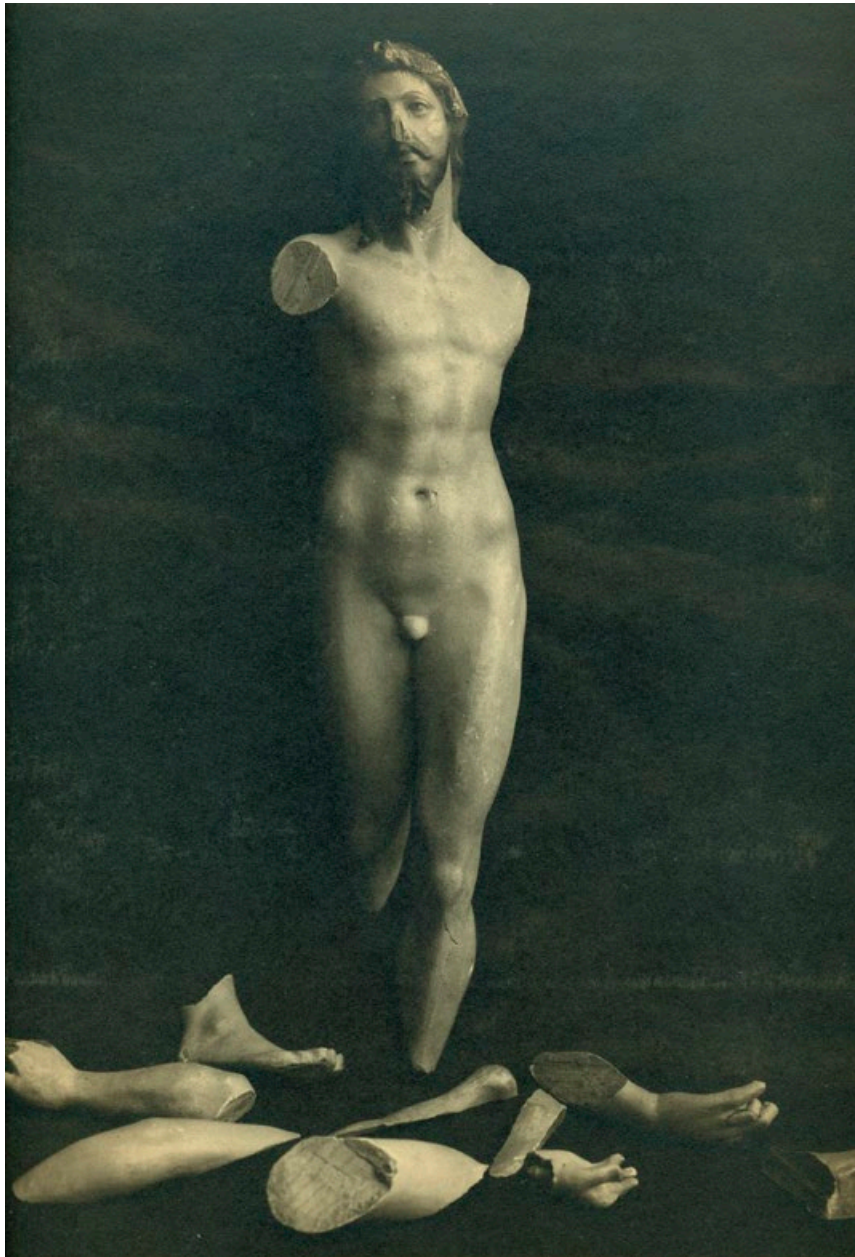
FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was processed and CNC-milled in sections into polyurethane, moulded and cast in plaster. The threshold is in alabaster. The finishing layer of wax and pigment was applied by hand.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/yeserias

Room 4:

REPRESENTATIONS OF
SACRED REALITY

Photograph by Pelayo Mas Castañeda. Image from the blog *Toledo Olvidado* by Eduardo Sánchez Butragueño: toledoolvidado.blogspot.com

Risen Christ

Doménikos Theotokópoulos, known as El Greco (1541-1614)
c. 1598, polychrome wood, 47 x 13.5 x 23.5 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with the permission of Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was 3D printed using SLA, moulded and cast in a synthetic resin used for the restoration of wood. This was then finished by hand to create the complex polychrome surface.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/el-greco-risen-christ

THE RISEN CHRIST

According to archival documentation, this small, polychrome wooden statue representing a Risen Christ was finished by El Greco in 1598. The figure is part of a gilded architectural tabernacle. The Risen Christ is completely naked, contradicting the Counter-Reformation ideas of decorum and appropriateness but would have been dressed with a loin cloth. The sculpture was re-discovered in 1921 at the Hospital de Tavera and immediately recognized as a work by El Greco. It was damaged during the Spanish Civil War, and restored by the Museo del Prado in 2014. A fixing was noticed in the top of the head suggesting it was part of an elaborate automata.

Polychrome figures constructed from sculpted hardwood were made to appear alive: they bring saints to earth in dazzling techni-colour and transport the faithful beyond the mundane through empathy and passionate belief. Surfaces were painted with animal glue and gesso. Flesh tones, the '*encarnaciones*' (literally, 'embodiment in flesh'), were formed by a base of chalk and gesso, followed by pigments suspended in oil, each vein picked out in blue just visible beneath the 'skin' where layers of translucent paint create optical mixes of naturalistic colour, with blood almost pulsing in fingertips and palms of soft rose. Glass eyes, tears and ivory teeth add an eerie, hyper-realism. The raw sufferings of Christ are made brutally visceral in these 're-materialisations' of ecstasy and pain. The figures show the artists' supreme understanding of the relationship between light and form, where shadows are added and enhanced in three dimensions, to reinforce the physical presence of the divine.

For more information about the recording of the original and production of the reconstruction, visit:
www.factumfoundation.org/pag/el-greco-risen-christ

RELEVANT LINKS
Fundación Casa Ducal de Medinaceli: en.fundacionmedinaceli.org/

Tabernacle

Doménikos Theotokópoulos, known as El Greco (1541-1614) with Jorge Manuel Theotokópuli (1578-1631)
c. 1595, gilded wood, 125 x 125 x 176 cm (325 cm with the added top section)
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from the Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The facsimile was produced from photogrammetric data. Some parts were 3D printed using SLA, moulded and cast in a synthetic resin (with properties of wood). Other parts were CNC-milled into polyurethane. The parts were joined together and gilded by hand.
The missing section was reconstructed by Jordi Pons. It was modelled using CAD software, 3D printed and CNC-milled before the application of ground and gold leaf. During the production in became clear how this tabernacle would have been used during the processions in Toledo, with the Christ rising through the structure using a wire fixed to the top of his head.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/el-greco-risen-christ

THE TABERNACLE

Left: Altar mayor del Hospital de Tavera, Toledo. Fototeca del Patrimonio Histórico. Right: Courtesy of Archivo Moreno. Image from the blog *Toledo Olvidado* by Eduardo Sánchez Butragueño: toledoolvidado.blogspot.com

This photograph shows the whole tabernacle as it was before the Civil War in Spain with Christ wearing a loin cloth visible in the top section. It is not known what happened to this part of the tabernacle but for the Auckland Project it was re-constructed from these photograph

Originally the tabernacle consisted not only of the architectural structure of which part still remains in the chapel, but also included five sculpted figures; a Risen Christ and the four doctors of the Church (Saints Jerome, Gregory, Ambrose and Augustine, all now lost). Twelve figures of the Apostles were commissioned for the small niches but there is no documentary evidence that they ever made. The tabernacle, with its Michelangelesque architecture based on St Peter's in Rome, is an automata linking architecture, sculpture, theatre and painting. The tabernacle was probably paraded through the streets during Corpus Christi, the figure of Christ emerging from the Sepulchre at the bottom and ascending into the dome at the top.

Jorge Manuel Theotocópulos (1578-1631), El Greco's son, was a painter and architect. He trained and worked in his father's studio while also working on commissions for paintings and buildings under his own name. His architectural career now overshadows his own work as a painter. It is possible that the architectural design of the Tabernacle was done by or in collaboration with Jorge Manuel.
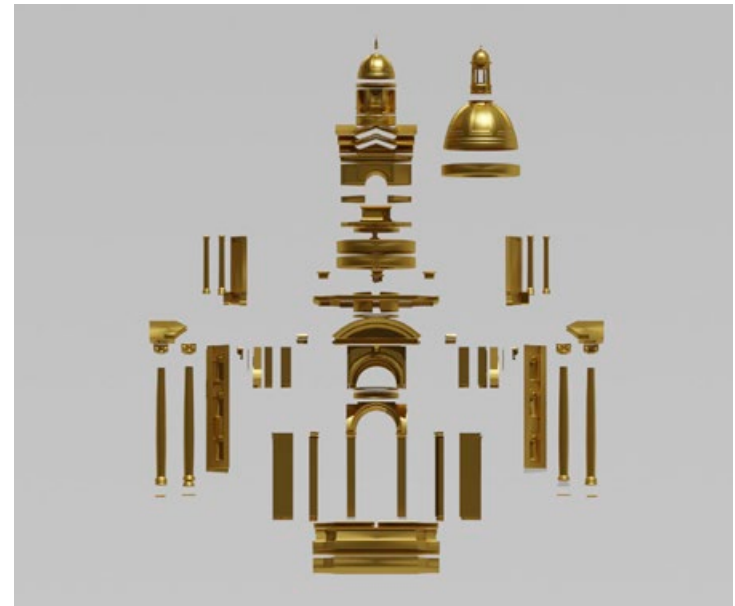

Diagram of the elements for the reconstructed tabernacle

For more information about the recording of the original and production of the reconstruction, visit: www.factumfoundation.org/pag/el-greco-risen-christ

RELEVANT LINKS
Fundación Casa Ducal de Medinaceli: en.fundacionmedinaceli.org/

The Baptism of Christ

Doménikos Theotokópoulos (El Greco) (1541-1614), Jorge Manuel and other members of El Greco's studio
1608-1624, oil on canvas, 209 x 329 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from the Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The facsimile was produced from 3D data recorded with the Lucida Scanner merged with composite colour photography. It was recorded in situ in the church. The data was 3D printed using Canon elevated printing technology, moulded, cast, printed in colour and finished by hand.
For more information about the recording of the original and production of the facsimile, please visit:
www.factumfoundation.org/pag/el-greco-baptism

THE BAPTISM

Detail of the Baptism revealing the speed of painting and the materiality of the paint

This canvas was part of a major commission including the architecture, sculptures and paintings of the main and side altars at the church of the Hospital de Tavera. Considered one of the most important commissions El Greco received, it was left unfinished after the artist's death in 1614.

Its magnificent composition is a personal invention of El Greco, completed in certain areas by his son Jorge Manuel. Although reconstructing the iconographic scheme devised for the three altarpieces is impossible today without any documentary evidence, it is assumed that *The Baptism of Christ* was intended to be at the main altar of the church dedicated to Saint John the Baptist, the patron saint of the Hospital. The *Annunciation* and the *Vision of St John* were similar-sized images designed for the side altars. Both paintings have been cut down from their original size; The *Annunciation* is in the collection of Banco Santander, while the top part of the painting depicting a chorus of angels, is in the National Gallery of Greece in Athens. The *Vision of Saint John* is in the Metropolitan Museum of Art's collection in New York.

Factum Foundation and Case Western Reserve University are collaborating to use machine learning in the analysis of relief data of the surface of paintings

On the side of the painting is an area where the artists were checking colour and marking the surface without aesthetic decision-making. It is hoped that from this data we can identify different hands at work on the canvas

Exploring the means of seeing and representation in the Spanish Golden Age is the essential purpose of the installation at Bishop Auckland in order to reveal the underlying thinking of that time. By extension, it also questions how we see today, how we represent what we see, and what matters to us by revealing that what we see is limited to our own perspective.

Shifts of focus and emphasis, mixed with touch and the movement of the hand reveal the fleeting and changing ways we build up our perception of the world we inhabit. El Greco's paintings, when studied in detail seem gestural and unfinished – but from the normal viewing distance they resolve into a harmonious narrative that can be 'read'.

Painting what you see was the real challenge. The aim was to locate experience in the world we inhabit. Only God is all seeing and all knowing; humans are defined by their point of view and subject to congitive error. Paintings are often divided so that the two approaches to painted representation exist in the same painting.

DIGITAL CONNOISSEURSHIP
MACHINE LEARNING AND THE FUTURE OF ART HISTORICAL ANALYSIS

Top: *Chorus of Angels*, National Gallery of Greece, Athens. Bottom: *Annunciation*, Banco Santander Collection, Madrid

The digital recording and digital analysis of El Greco's paintings will potencially enhance our understanding of this artist, famed for his idiosyncratic and highly personal paintings. He is the epitome of the individual artistic genius. But he ran a successful studio in Toledo from 1577 until his death in 1614. Artistic practice in Spain in the late 16th century was controlled by strict professional codes. El Greco worked with a team of painters and assistants including his son, Jorge Manuel Theotokópoulos, who continued to run the workshop for some time after his father's death.

The analysis of the painted surface, recorded using high-resolution 3D laser scanning and confocal profilometry, will provide data for a research collaboration between Case Western Reserve University and Factum Foundation, working with the Fundación Casa Ducal de Medinaceli and The Auckland Project. The analysis involves AI machine-learning (ML) techniques using neural networks reacting to the three-dimensional characteristics of the surface relief. The aim is to identify different hands at work during the production (and restoration) of El Greco's paintings. The individual technique of each artist leaves its trace on the painted surface. These traces can be clearly read if they are recorded with enough detail. With El Greco, there are often several hands working together to produce a single coherent and recognisable style. At present the ML software has successfully identified the two missing areas in the restored painting by El Greco of Cardinal Tavera and is 'learning' to identify the characteristic traces of El Greco's mark-making.

The Baptism of Christ (in the chapel of the Hospital of Cardinal Tavera, Toledo) and *The Annunciation* (in the collection of Banco Santander) have been recorded. Permission is being sought to record the *Concert of Angels* (National Gallery of Greece) and *The Opening of the Fifth Seal* (Metropolitan Museum, New York). The crucifixion painting attributed to El Greco on display at the Spanish Gallery and the similar paintings by El Greco in the Cleveland Art Museum are also being recorded and analysed. The close similarity of these two paintings suggests that El Greco's studio may also have been using a system to improve the speed and accuracy of the copying. This collaboration between institutions will hopefully help establish the importance of recording the surface of paintings and reveal new information about the working practice of El Greco's studio.

SEE ALSO
The Aura in the Age of Digital Materiality, 2020, various authors, ISBN 9788836645480
See pages 193 to 195: www.factum-arte.com/resources/files/ff/project_related_materials/adam_lowe_el_greco.pdf

Holy Week in Seville (c.**1961**)

Andelsa, Filmoteca de Andalucía, Córdoba
Consejería de Cultura y Patrimonio Histórico, Junta de Andalucía
Original black and white, 16mm. film footage
Transferred to digital format for this installation in Bishop Auckland
Digitisation and editing in 2021 by Ramón Benítez at the Filmoteca de Andalucía (Córdoba) from the series of films, *Spain's Landscapes -Travel Memories (Itineraries 13-15)*

Room 5:

DEATH
DESTRUCTION
REBIRTH

Sepulchre of Cardinal Tavera

Alonso de Berruguete (1490-1561)
1561, Carrara marble, 324 x 217 x 185 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from Fundación Casa Ducal de Medinaceli.
Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The sepulchre in the middle of this room demonstrates the level of accuracy possible with 3D scanning and printing, CNC-milling, moulding and casting.
LiDAR scanning, high-resolution 3D scanning, close-range photogrammetry and composite photography were used in the non-contact digital recording of the original by Berruguete in Toledo. CNC-milling, various types of 3D printing, complex piece moulding and casting methods and years of experience were required to produce this facsimile.
For more information about the recording of the original and production of the facsimile, please visit:
www.factumfoundation.org/pag/sepulchre-cardinal-tavera

THE SEPULCHRE

Courtesy of Biblioteca Nacional de Madrid, digitised and catalogued by Centro de Estudios de Castilla-La Mancha.
Images from the blog *Toledo Olvidado* by Eduardo Sánchez Butragueño:
toledoolvidado.blogspot.com/

Alonso Berruguete is considered to be the most under-rated European artist of the sixteenth century. Little known outside Spain, he was a friend of Michelangelo and a painter, sculptor and architect. The Sepuchre of Cardinal Tavera was his last work. Commissioned in 1552, seven years after Cardinal Tavera died, Berruguete only finished the carving in 1561. Within months of its completion, he was also dead. Ricardo de Orueta, in his monograph of Berruguete (1917) calls it 'an embodiment of death' and it plays an important role in Luis Buñuel's film *Tristana* (1970) as 'a fixed image of death'. Berruguete knew Cardinal Tavera while he was alive, but there is no doubt that the face's lifeless expression faithfully resembles the death mask that served as the model for the Carrara marble portrait.

In the contract it was specified that the Sepulchre of Cardinal Cisneros (made between 1518 -1521 for the chapel of the Colegio Mayor de San Idelfonso in Alcalá de Henares) should be the model.

Catherine Deneuve in *Tristana* (1970), directed by Luis Buñuel

Berruguete's great portrait of death, sits under the dome at the centre of the chapel in the Hospital in Toledo. Tavera is dressed in pontifical garments, on a deathbed surrounded by griffin sculptures and the four cardinal Virtues (Prudence, Justice, Fortitude and Temperance) at each corner. Tavera's coat of arms lies at his feet held by two angels, while on the sides, two pairs of putti prostrate in front of a skull, symbolising Death.

On the long sides of the base of the sepulchre, two circular reliefs (*tondi*) represent Saint John the Baptist, patron of the Hospital, and Saint James, in reference to Tavera's time as the Bishop of Santiago de Compostela, They are surrounded by scenes of their lives and martyrdom. The *tondi* on the short sides represent Saint Ildephonsus and Charity.

For more information about the recording of the original and production of the facsimile, please visit: www.factumfoundation.org/pag/sepulchre-cardinal-tavera

RELEVANT LINKS
Fundación Casa Ducal de Medinaceli: en.fundacionmedinaceli.org/

FURTHER READING
Alonso Berruguete: First Sculptor of Renaissance Spain, 2019. National Gallery of Art, Meadows Museum, SMU, CEEH y Yale University Press

CARDINAL TAVERA

Cardinal Juan Pardo de Tavera (1472-1545) was one of the central figures that represent the humanism and positive aspects of social life in Renaissance Christian Spain. He founded the Hospital of San Juan Bautista (also known as Hospital de Tavera) in Toledo to treat the poor of the community.

The Hospital's layout and design reveals a lot about medical knowledge of the time, and the day-books record treatments in great detail. The hospital houses one of the few remaining intact pharmacies of the time, giving us a glimpse into the way the New World transformed so many areas of life in the old world.

During his life the Cardinal refused to have his likeness made. As a result all images are based and his death mask. It was this image that was used by Alonso Berruguete (c. 1488-1561) in 1552, when he was commissioned to make the Sepulchre to immortalize the great Cardinal.

Berruguete was the first sculptor of the Renaissance in Spain. He had direct knowledge of life in Italy and the art of Antiquity and was a good friend of Michelangelo. The Sepulchre of Cardinal Tavera, Berruguete's last work, has been described as the image of death, but it is also an assertive statement about the renaissance and rebirth.

Death mask of Cardinal Tavera

Possibly a copy made by Alonso Berruguete c.1560 after a death mask made in 1545
Plaster, approx. 25 x 15 x 10 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The copy was produced from photogrammetric data. It was 3D printed using SLA, moulded and cast in plaster. The colour was applied by hand.
The death mask of Cardinal Tavera (1475-1545) served as a model for the Carrara marble sepulchre that Alonso Berruguete was commissioned to make in honour of the Cardinal, founder of the Hospital de San Juan Bautista in Toledo. Decades later, El Greco used the death mask as reference when painting his portrait of the Cardinal.
Pedro Salazar de Mendoza, Administrator of the Hospital of Cardinal Tavera between 1587 and 1614 wrote: *"because of his great modesty he did not allow anybody to make his portrait, even if requested by some of the greatest painters and sculptors, particularly Alonso de Berruguete, one of the most renowned of the time. The portrait in the church and others in the building were done after his death …".*
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/death-mask-of-cardinal-tavera

Portrait of Cardinal Tavera

Attributed to Alonso Berruguete (1490-1561)
c. 1560, oil on marble, 81 x 51 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The copy was produced from a 3D recording made with the Lucida Scanner and composite colour photography. It was 3D printed using Canon elevated printing technology, moulded,cast, printed in colour and finished by hand.
Little is known about this portrait painted on marble. It is one of three portraits in Hospital de Tavera all made from the death mask. The painting is attributed to Alonso Berruguete and could have been made as a preparatory sketch for the Sepulchre and may have made this painting to understand the physiognomy of the Cardinal before transferring the features into carved marble.
For more information about the recording of the original and production of the facsimile, visit:
www.factumfoundation.org/pag/berruguete-portrait-cardinal-tavera

Portrait of Cardinal Tavera

Doménikos Theotokópoulos, known as El Greco (1541-1614)
c. 1610, oil on canvas, 102 x 81 cm
Hospital de San Juan Bautista (or Hospital de Tavera), Toledo

Recorded and reproduced with permission from Fundación Casa Ducal de Medinaceli.

Thanks to: Ignacio de Medina y Fernández de Córdoba, Duke of Segorbe (President of the Fundación Casa Ducal de Medinaceli) and Juan Manuel Albendea Solís (Director General).

FACTUM FACSIMILE
The copy was produced from a 3D recording made with the Lucida 3D Scanner and composite colour photography. It was 3D printed using Canon elevated printing technology, moulded,cast, printed in colour and finished by hand.
For more information about the recording of the original and production of the facsimile, please visit:
www.factumfoundation.org/pag/el-greco-portrait-cardinal-tavera

EL GRECO PAINTING

Courtesy of Archivo Rodríguez. Images from the blog *Toledo Olvidado* by Eduardo Sánchez Butragueño: toledoolvidado.blogspot.com

Between 1608 and 1614, the Administrator of the Hospital de Tavera, Pedro Salazar de Mendoza commissioned El Greco to make this portrait of Cardinal Tavera, more than half century after his death. El Greco's reference was the marble sculpture by Berruguete and the death mask that is still shown in the sacristy alongside the painting. This would explain the absent and ghostly expression of the portrait. The body is generic and resembles other paintings by El Greco such as *Saint Jerome as a Scholar* (1610, The Metropolitan Museum of Art, New York).

The painting was literally decapitated during the Spanish Civil War as it was hacked to pieces. Luckily, only two fragments were lost and the painting was restored between 1938 and 1940 in Seville by Fernando Labrada. The scars of the damage can still be seen as a subtle relief in the surface.

There is a tangential link to English painting. Francis Bacon, who died in Madrid, was looking at Velázquez and Spanish painting while producing the *Screaming Pope*'s and paintings after Velázquez for 30 years from the mid 1940's. Percy Wyndham Lewis was a great supporter of these paintings by Francis Bacon. In his published conversations with David Sylverster, Bacon comments that his paintings of popes have nothing to do with religion, but they come from '*an obsession with photographs that I know of Velázquez's* Innocent X. *Because I think it's one of the greatest portraits that has ever been made.*'

Images of the horros of the Spanish Civil war were known to Bacon. Eisenstein's famous still from *Battleship Potemkin* was pinned to Bacon's wall along with torn, worn and ripped photographs by John Deacon. The life mask of William Blake informed a series of paintings. It is easy to imagine Bacon looking at the images of the El Greco's *Portrait of Cardinal Tavera* painted from a death mask, slashed into pieces as a source of inspiration. Giles Deleuze comments that Bacon's aim was 'to dismantle the face by rubbing or brushing until it loses its form'. Velázquez built up with a sure touch that transformed oil paint into something that was 'troppo vero' (too true).

For more information about the recording of the original and production of the facsimile, please visit: www.factumfoundation.org/pag/el-greco-portrait-cardinal-tavera

During the Spanish Civil War (1936-39), the Hospital de Tavera was occupied, first by Republican militias and then by Francisco Franco's troops. Significant damage was inflicted on the Sepulchre and El Greco's *Portrait of Cardinal Tavera,* that was slashed and left in pieces. The marble sculpture of the young John the Baptist by Michelangelo was smashed in Ubeda and the Sepulchre of Cardinal Cisneros was seriously damaged by bombing in Alcalá de Henares.

Courtesy of Fototeca del Instituto del Patrimonio Cultural de España, Fundación Casa Ducal de Medinaceli, Courtesy of the blog Toledo Olvidado by Eduardo Sánchez Butragueño: toledoolvidado.blogspot.com

WAR AND DESTRUCTION

During the Spanish Civil War (1936-39) the Sepulchre of Cardinal Tavera was vandalised by both Nationalists and Republicans. Many of the heads and limbs were smashed from both the figures and the griffins. Fortunately, they had been moulded and cast in the early 20th century. The plaster casts were displayed in the Museo del Reproducciones in Madrid until it closed down in the mid 1990s and the collection was transferred to the Museo Nacional de Escultura. These casts are now stored in an underground storage space and are in poor condition. However they still allow us to know how the sepulchre looked before they were vandalised.

The Sepulchre of Cardinal Cisneros (the model for Berruguete's comission) was significantly damaged. *The Young Saint John the Baptist* by Michelangelo was smashed and burnt in Ubeda. The *Portrait of Cardinal Tavera* was cut to pieces. Many other works of art suffered the same fate. Iconoclasts always accompany conflict. But in post-conflict conditions the tables are turned. The damage focusses attention and can inspire new engagements and reflections.

The Virtues of Prudence, Courage and Temperance from the sepulchre of Cardinal Tavera

Made by unnamed craftsmen documenting the sculptural heritage of Spain.
Early 20th century, plaster casts, various sizes
Museo Nacional de Escultura, Valladolid
Stored under the Museo del Traje, Madrid

Recorded and reproduced with the permission of the Ministerio de Cultura y Deporte. Thanks to María Bolaños Atienza (Director of Museo Nacional de Escultura), Alberto Campano Lorenzo (Deputy Director) and Manuel Arias Martínez (former Deputy Director).

FACTUM FACSIMILES
The copies were made from white light scanned data merged with high-resolution photogrammetry. They were 3D printed using SLA, moulded and cast in an acrylic resin. The white parts indicate the pieces lost during the Spanish Civil War.

CASTING IN PLASTER

Plaster casts were the recording and copying technology of the 19th century. Henry Cole, the first director of the Victoria and Albert Museum and one of the driving figures behind the Great Exhibition of 1851, launched the *Convention for Promoting Universally Reproductions of Works of Art* in 1867. The aim was to make works of art freely available everywhere and to everyone. He persuaded the national and royal collections to share their contents in the form of plaster casts. The result was the creation of significant plaster cast collections in museums and institutions from London to New York.

At the time, London was the capital city of a vast colonial empire. Now the pressures to rethink ownership and sharing are growing. Digital input and output technologies exist alongside online and offline access. Access can take many forms from screens to headsets, glasses, hybrid mixes but it can also be physical.

Henry Coles' vision of shared cultural access fell from favour in the 20th century. Many of the collections of copies were disbanded or destroyed in the 1980s as the material and aesthetic value of objects replaced their narrative potential as complex subjects.

In the age of digital materiality, attitudes towards owning, sharing, preserving, displaying, archiving and valuing cultural artefacts are being re-negotiated.

Ceiling

New design based on traditional **Spanish** *Mudéjar* lacework ceilings of the
15th**-17**[th] **centuries**
Polychrome wood

For more information about the recording of the original and production of the
ceilings, please visit:
www.factumfoundation.org/ind/spanish-gallery-bishop-auckland

IN ICTV OCVLI

Room 6:

HIEROGLYPHS OF
THE AFTERLIFE

In Ictu Oculi

Juan de Valdés Leal (1622-1690)
1672, oil on canvas, 228 x 237 cm
Iglesia de San Jorge del Hospital de la Caridad, Seville

Recorded and reproduced with the permission of the Hermandad de la Santa Caridad.

FACTUM FACSIMILE
The facsimile was produced from surface data recorded with the Lucida 3D Scanner merged with composite colour photography. It was 3D printed using Canon elevated printing technology, moulded, cast, printed in colour and finished by hand.
In Ictu Oculi speaks of the transience of life – that momentary flash between birth and death - but also of transformation and change. Eternity can only be seen in the twinkling of an eye.
For more information about the recording of the original and production of the facsimile, please visit:
www.factumfoundation.org/pag/valdes-leal

Finis Gloriae Mundi

Juan de Valdés Leal (1622-1690)
1672, oil on canvas, 230 x 234 cm
Iglesia de San Jorge del Hospital de la Caridad, Seville

Recorded and reproduced with the permission of the Hermandad de la Santa Caridad.

FACTUM FACSIMILE
A bishop and a Knight of the Order of Calatrava are in an advanced state of decomposition. Other skeletons can be seen in the background. An owl, carrying messages beyond this life, silently watches. At the top of the painting the hand of Christ, holds the scales by which all lives are judged: 'Nothing more, nothing less' than measuring the weight of the Seven Works of Mercy against the Seven Deadly Sins. In Pharaonic texts the soul was measured against the weight of a feather.
For more information about the recording of the original and production of the facsimile, please visit:
www.factumfoundation.org/pag/valdes-leal

HIEROGLYPHS OF THE AFTERLIFE

According to an entry in the minute book of the Hermandad de la Santa Caridad, 28th December 1672, the two vanitas paintings in the Hospital de la Caridad known as *Jeroglíficos de las Postrimerías,* or *Hieroglyphs of the Afterlife,* were painted in that year.

There is general consensus among art historians, that the series was conceived with several allegoric layers of meaning. One could only be understood by Miguel Mañara, the patron behind the Hospital de la Caridad, and his inner circle. They could read the Hieroglyphs, understand their complexity and see the world through the eyes of others.

Valdés Leal had previously produced other works on similar themes: *Mors imperat (The Empire of Death); The Allegory of Vanity, The Allegory of Salvation, The Allegory of the Last Days, The Allegory of Death.*

The two paintings in the Hospital de la Caridad go much further… they dissolve the boundries between life and death. They are profound paintings that transcend their core beliefs. Are these paintings a hymn to disillusionment during a serious plague or is this an affirmative statement that is both of its time and timeless, local and universal?

From Juan de la Cosa's map in the first room to Valdés Leal's vanitas paintings in the last, the aim of this installation in Bishop Auckland has been to provide access to a different world. *In Ictu Oculi, In the Blink of an Eye* is a reminder that national borders change, and identities alter, religious powers come and go, wealth accumulates and evaporates… but people always need to share and communicate, both similarity and difference.

Ceiling

Juan de Valdés Leal (1622-1690)
1669-1670, carved plaster
Iglesia de San Jorge del Hospital de la Caridad, Seville

Recorded and reproduced with the permission of the Hermandad de la Santa Caridad.

FACTUM FACSIMILE
The baroque gesso ceiling decoration that is from the lower choir of the Church of San Jorge in the Hospital de la Caridad is also attributed to Juan de Valdés Leal. Valdés Leal, like many of the painters working in Seville was also a sculptor, decorator and architect.
Around the ceiling the text is not from the Hospital de la Caridad but has been used to echo the themes of this installation – transience and eternity are the themes.
Tradition is not the worship of ashes but the preservation of fire. Attributed to Sir Thomas More and Gustav Mahler.

THE FURNITURE

While all the objects, paintings, sculptures, floors and ceilings are faithful re-creations of original pieces, all the furniture is original.

The table in *Room 1* is a games table with inlay. While showing the influence of Italian taste the carving on the inlay is from Spain in the second half of the 1600's.

Nothing is known about the date or history of the throne in *Room 4*.

The chairs in *Room 5* are an example of the style and use of leather in the 18th century.

The benches in *Room 6* are from the 17th century. One carries a date on the original boards but has more recent legs. The other has original legs and metal work but the bench itself is re-used from a door.

The 17th century mirror in *Room 6* is finely carved and gilded. The glass is not the same age as the frame.