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ARCHITECTURAL CERAMICS – AN ARTISTIC LANGUAGE OF MODERNITY

Abstract

The tradition of ceramics in architecture reaches Antoni Gaudí, who already in his first works incorporated it to develop his own ways of using it. These ranged from following the ornamental Arab formulas and traditional mottled models -called *jaspiats*- (Casa Vicens; Pavellons Güell) to ceramics reliefs and moulds, for example of flowers (the Capricho in Comillas) and even the creation of a new architectural language based on the use of rejected tiles, combined to reconstruct the original design or not (Palau Güell chimneys and medallions of Park Güell).

From the functional and decorative play of brick and its Islamic disposition to applying tiles under balconies, coating chimneys and decorating façades, Gaudí becomes one of the main proponents of industrial ceramics. With the technical support of Jaume Pujol i Bausis and his son Pau Pujol i Vila from their factory of ceramic products in Esplugues de Llobregat, popularly known as *La Rajoleta* (the little tile), as with tiles already produced by its forerunner, the *Fábrica de lozetas y ladrillos finos* of Marius Jourdan and Joan Terrada.

Other architects like Josep Vilaseca (Triumphal Arch of the 1888 Barcelona Universal Exhibition, with ceramics by Magí Fita), Lluís Domènech i Montaner (Cafè – Restaurant of the same exhibition with ceramics by Josep Ros and Pau Pujol) and Josep Puig i Cadafalch, or ornament designers like Lluís Bru, Adrià Gual and Alexandre de Riquer, extended the use of ceramics and built mosaics that –together with crowning elements, façade and interior coatings, columns and capitals, roofs, or staircases- became a peculiar trait of Modernista architecture.

In the first decade of the 20th Century, the ceramics industrial technical Francesc Quer researched into new materials and introduced stoneware in the Esplugues factory, contributing to a new post-Modernisme –named *Noucentisme*- ceramic language.

Introduction

In 1874, Jaume Pujol i Bausis started operations at the ceramics factory Terrada i Gelbert (1863-1874), a factory formerly run by Marius Jourdan from 1860 to 1862 (Amigó, 2002). Jaume and his son Pau Pujol i Vilà were responsible not only for increasing its size, but for industrialisation. Jaume died in 1891 and Pau began introducing technological improvements. He employed two art and technical directors, Joan Baptista Alós (1901-1904), and Francesc Quer (1911- probably 1928).

The AMEL¹ Archive enables consultation of the daily batches recorded in the kiln firing logbooks, glaze recipe books, customer records and so on. They record the factory's products and concerns on firing materials and techniques; the hard work, trials and joys those batches of kiln firings represented; as well as a record of slips and glazes. Lastly, there was the imperative to create new colours and enamels, such as Gaudí green or Gaudí yellow and blue and a metallic lustre. At Pujol i Bausis, the logbooks show that three factory lots were assigned for biscuitware firings and twenty-two lots for the application of slips (Serra i Mercader, 1995).



1. Poppy flowers sample tile enamelled drawn in free strokes, Terrada I Gelbert ceramic factory (Esplugues de Llobregat, 1863), Photo PiaSubias

During Modernisme, the use of rough earthenware, stoneware paving tiles, wall tiles, ceramic mosaics (of earthenware or stoneware), Roman mosaic (made of hard materials such as marble or stoneware), Venetian mosaic (made with opaque-glass tesserae tiles) and hydraulic or encaustic tiles revealed the architect's desire for modernity, also sought by draughtsmen in the ornamental arts and by clients. Modern polychrome

was applied to the entire architectural skin and contributed to disseminating the rediscovered vogue for architectural ceramics. Even though the preserved documentation is incomplete, Pujol i Bausis remains a reference for discovering a modern ceramics language.

Origins

Focusing on the Iberian Peninsula², we can trace the roots of ceramic use back to the late Roman and Visigoth periods. At that time brick was used decoratively on buildings such as the Madinat al-Zahra or Bib al-Mardum mosque (Toledo, 999), Santa Maria of Ateca and San Pedro churches (Teruel, thirteenth century), and San Martin and San Salvador towers (Teruel, fourteenth century). *Mudéjar* architecture – Hispano-Moresque art created under Christian dominion – filled brick walls with a kind of ornamental tapestry intended as an architectural structure to cover the entire surface as a unifying element. It marked colour patterns of repetition and alternation of bricks with convex and concave discs, columns, eight-pointed stars, arrowheads and interwoven blind arches. Islamic influence offered a formula for applying monochrome, glazed, ceramic pieces that were custom-made and voluntarily placed in a preconceived position (Álvaro, 1997).

Catalonia shows evidence of Hispano-Moresque design but also of Catalan tradition in the use of patterned and mottled tiles (*jaspats*)³. The patterned tile collection at Can Tinturé Museum was the first specialising exclusively in patterned tiles in Spain⁴. The new



2.Can Tinturé. Salvador Miquel Sample Tile Collection, Espluges de Llobregat, Photo: Carme Masia

Salvador Miquel Sample Tile Collection takes one on a chromatic tour from Gothic blues and the arrival of colours to nineteenth-century blues, when Espluges came to prominence in 1860 as a production centre for sample tiles and earthenware tiles, even before Jaume Pujol began his industrialisation of the business (Amigó, 2000). The once-private collection has now become a permanent public one located behind La Rajoleta Ceramics Museum premises, opened to the public in International Gaudi year, 2002.

“Originality is returning to the original”, “nature is always my teacher – Gaudí⁵

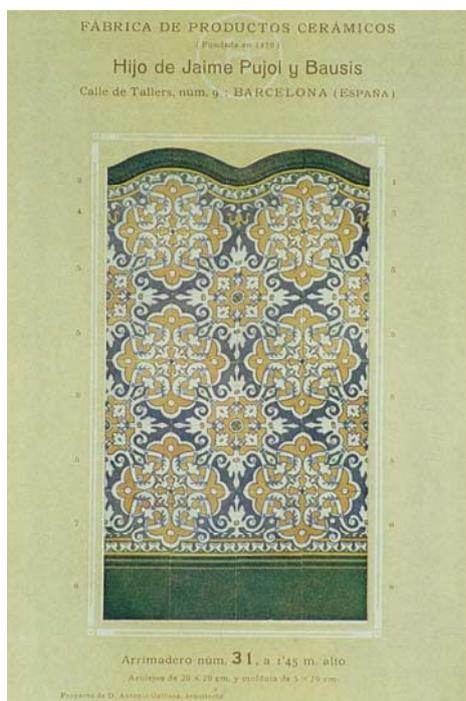
The nineteenth century saw the recovery of ornamentation in architecture from the *Mudéjar* past as a way of transmitting modernity. Examples in Barcelona include the Montaner i Simon publishing house by Domènech i Montaner (1880-1881/82) and Les Saleses church by Joan Martorell, on which Antoni Gaudí collaborated (1882-1885). The latter shows architectural and decorative Neo-Gothicism with Muslim ornamental influence. Gaudí’s statements helped to build that past, as in the Vicens house (commissioned 1878; built 1883-1888) and the Capricho (Comillas, Santander, 1883-1885): “Nature is always my teacher. Originality consists of returning to the origin. Thus, originality means returning, through one’s resources, to the simplicity of the early solutions”. The arrangement of red and yellow bricks horizontally with sunflowers and leaves in relief, which in the tower alternate with green enamelled tiles, created a new modern language in the Capricho building. The flowers are created of ferruginous clay, press-moulded⁶ and glazed in green and yellow. The Vicens house displays the abovementioned *Mudéjar* influence with a subdivision of the exterior walls into fields that combined bricks with traditional, green and white, Catalan and Valencian tiles, arranged in a chess board pattern⁷ and tiles cut in an innovative arrangement, in a similar solution as he used on the east and south entrances of Finca Güell (1884-1887), which today serve as gates to the University of Barcelona. Then the carnations were drawn in free strokes, often outlined using a stencil or waxed paper template with the cut-out design placed over the white enamel.

Flowers are one of Gaudí’s themes. Pau Pujol gave instructions to calculate how many grams had been left over from the “French green used to paint Gaudí’s flowers” in a note dated prior to the eighth 1883 batch found inside one of the varnish and colour logbooks. The formula for “Gaudí’s yellow glaze” for one thousand, three-quarter-size, moulded tiles fired in the sixteenth batch of the same year has also been preserved. Specialised producers also created moulded tiles for others: craftsmen such as Magí Fita⁸ and Sebastià Ribó⁹ or Baldomero Santigós¹⁰. Pujol i Bausis enamelled its pieces (using tin oxide) or lead glazing and fired them twice, or three times in the case of lustreware. The

Esplugues factory created the colours and applied them to the flowers made by an as-yet-unknown potter. The clay work is different from that which Esplugues did or preserves¹¹.

Harking back to Medieval times

Rough earth and cobalt blue is the first section of Can Tinturé that looks at the Medieval period: biscuit-fired tiles used for covering ground and tiles painted with cobalt oxide, a mineral that turns blue when fired. Gothic blue tiles were revived during Modernisme: Medieval Valencian and Catalan models were the source of inspiration for the new ceramics. The Pujol i Bausis factory reproduced examples commissioned by the architects Antoni M. Gallissà and Josep Font i Gumà who designed and studied tiles on the trips they made with Domènech i Montaner¹² around Catalonia and Valencia. One example is the hexagonal tile found on the factory premises, similar to the Gothic ones used to floor the Chapel of Saint Jordi (Palau de la Generalitat, Barcelona). AMEL holds the watercolour drawings for those tiles, which I gave to Font i Gumà¹³. Gallissà was director of works on Domènech i Montaner's project for Palau Montaner (1889-1893). The chapel boasts blue armorial tiles¹⁴ with the year 1895 and a shield which records the heraldic origins of this Florentine family living in Canet de Mar (Sala, 2008), surrounded by marble slabs in the manner of Medieval grounds. He also designed tiles inspired on models from the Valencian Government Palace made by ceramists from Seville or Talavera de la Reina working in Valencia and Catalonia. The Esplugues factory produced these for the first time between 1895-1899 and listed them in its catalogue¹⁵ as numbers 31, 32 and 34. The



3. Pujol i Bausis design number 31 by Gallissà, 1895-99.

Gallissà's passion for tiles can be seen in the Pujol family's Esplugues de Llobregat property, Can Casanovas, Can Camps (the architect's home and studio) and the house on carrer Sant Domènech del Call, in Barcelona.

highly popular design number 31 was applied in Puig i Cadafalch's Roman Macaya house. It was also chosen by Gaudí (or probably by Gallissà himself) for the brick fireplace surround of green and brown glazed tiles beside border pattern 34, in Can Soler de la Torre (Santa Coloma de Cervelló)¹⁶. The latter building had been purchased in 1860 by Joan Güell, father of Eusebi Güell, Gaudí's patron. Tile design number 34 can also be found under its west façade balcony. In fact, Gallissà was there in 1899, building the Garcia farm, along with the Sant Esteve rectory, using Pujol i Bausis tiles. With Font i Gumà, he worked on the Sant Esteve church (1896-1908). Both architects followed quite similar ideas. Gaudí defended the concept of "originality... returning to the origin" while Gallissà believed in the study of history as a starting point for future work, learning how to do and how things were made in order to plan new ones. Could Can Soler de la Torre have been a link between Gaudí's and Gallissà's worlds?¹⁷.

In other words, tradition and recovery of the past created a new language yet architects also displayed their own personality, a modern channel of creativity through ceramics. Josep Vilaseca's Triumphal Arch and Domènech i Montaner's Café Restaurant are examples at Barcelona's 1888 World's Fair of the use of brick and enamelled architectural ceramics. The former employed stylised floral friezes and geometrical, green and yellow, enamelled reliefs by Magí Fita: modernity in a historicist monument¹⁸. The same ceramics manufacturer also made the battlements of the Café Restaurant which exhibits a frieze of large shields of twelve tiles each. They were created by Alexandre de Riquer working to Joan Llimona's designs, among others, and depict Catalan, Spanish and foreign food that could be consumed here, along with animals and plants in blue on white enamel by Pujol i Bausis.

Metallic lustreware gave new life to the ceramics industry

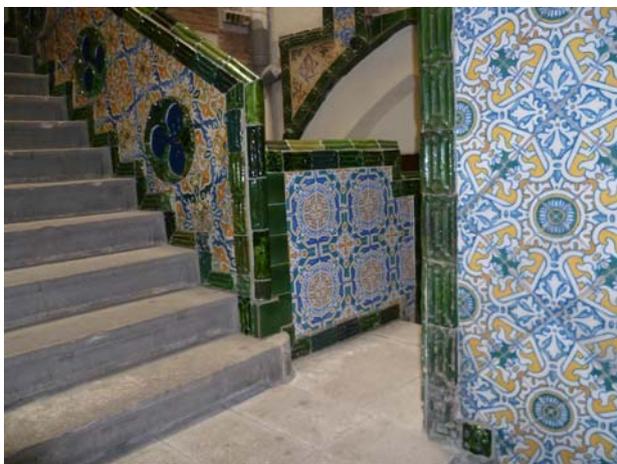
The process of producing enamelled or glazed tiles required two firings: the first, a biscuit firing, while the second transmutes the oxides into colours by heating the kiln to 800 °C. A lustre effect required a third firing using silver or copper oxides, which became the coveted golden lustre. Joseph-Théodore Deck, because of his range of technical innovations, was made art director of the Sèvres factory, the first ceramist to hold this position (1887-1891). Jaume and Pau Pujol followed Deck's instructions as did many other European manufacturers. They knew his book *La faïence* (1887) and used his solutions while experimenting with alternatives that they recorded in the factory's kiln firing logbooks. Deck reformed ceramics, creating transparent glazes, underglazed painting and gold backgrounds. The ceramist Antoni Serra i Fiter, who founded Manufactura de porcellanes i gres artístics (Barcelona, 1904 –1908), was another Deck follower (*Large Vase with Oranges in Relief* and *Magnolia* are 1907 examples of his work). Léon V. Solon, ceramist, painter and illustrator for Minton's Ltd, also learnt about gold from Deck¹⁹. In fact, the architect Owen Jones and Deck were the pioneers in recovering the secrets of Islamic Gallissàtile design, 1895-99 (AMEL, Esplugues de Llobregat) lustreware in the nineteenth century. Jones believed in the



4. Picture Jordi G. Noddings

search for a modern style unique to that century, which was radically different to the prevailing aesthetics of Neo-Classicism and the Gothic Revival. He looked towards the Islamic world for inspiration, through study of the Islamic decoration in the Alhambra²⁰. For Deck, the 1850s were an exciting decade of technical research and experimentation, looking back into history to develop new, improved ceramic techniques (Todd, F., 1992). After exploring lost Renaissance processes, he began to discover the secrets locked within the luminescent glaze of his one Islamic tile. Many Islamic inventions – for example, tin-glazed earthenware, lustre and underglaze painting – were in turn crucial to the development of ceramics in other cultures. Deck discovered that their brilliant colour was

due to a base coating of white alkaline slip containing tin oxide. The decoration, done in enamel colours, is covered with a transparent glaze, and produces glowing, translucent effects. After much trial and error, Deck succeeded in rivalling the vivid deep-turquoise glaze, using potash, carbonate of soda and chalk that was presented at Paris's Exhibition des Produits de l'Industrie²¹ in 1861. Furthermore, he introduced metallic lustre glazes, derived from Hispano-Moresque or Andalusian wares, at the 1862 Great London Exposition. M.C. Davillier, the collector and curator of the Louvre Museum, wrote that Manises' days of manufacturing gilded pottery were not over, focussing international attention on the site²². In this European context, and in relation to its Islamic past, Spanish manufacturers imitated the ornamentation on monuments such as Seville's Alcazar, the Alhambra and Generalife in Granada or the Great Mosque in Córdoba. Gaudí derived great pleasure from gilded dishes and vases²³. He visited Manises with Domènech i Montaner in 1887 to learn more about the metallic lustre process. The 1867 World Fair in Paris made reference to Arab inspiration in the Moorish Pavilion. Yet not until Barcelona's World Fair in 1888 do we find Spanish ceramic companies producing metallic lustre pottery: Baldomero Santigós (exhibiting *Mudéjar* vessels, examples of metallic lustre pottery and a Hispano-Moresque amphora), among products by Alvar Campaner Fuertes (Palma de Mallorca) and Pickman (Seville). Once the exhibition had ended, Domènech i Montaner had to finish his architectural and decorative projects for the Café Restaurant, where he established small workshops at *Castell dels Tres Dragons* over the summer of 1891, working to full capacity by early 1892. He organised a team with Gallissà and the technical ceramists Pau Pujol, Baldomero Santigós and Josep Ros, co-owner with Urgell, of La Ceramo, *Fàbrica de majolica hispanomoriscas* (Benicalap, València, 1885)²⁴. All of them carried out tests at their own manufacturers. The ceramics created for the *Torre de l'Homenatge* by Pujol, Romeu Escofet, Ros and Santigós were finally applied in December 1893 (Casanovas, 2000). Meanwhile, Paris's 1889 Universal Exhibition had taken place, where Arturo Mélida exhibited *Mudéjar* style at Spain's Central Pavilion. One year later Pau Pujol produced the first metallic lustreware for Domènech i Montaner and Gallissà: renovation and interior décor of the Neo-Gothic church of the Seminar of Comillas. The exterior was clad in yellow, blue and gold on white tiles while Gothic letters repeated the invocation *Ave Maria*. They applied hemispherical lustre tiles with the monogram *IHS* – *Jesus* – a solution that was also applied to the gate of the seminar grounds. The evangelists are dressed in blue, turquoise, grey and yellow polychrome, fired in the 1890 batches at



5. Tiles designs by Gallissà, Carrer Sant Domènech del Call (Barcelona), Pujol i Bausis, 1895-1899. Photo PiaSubias

Pujol i Bausis. AMEL preserves the evangelists Matthew – the angel – and John – the eagle. The church's façade also shows the lion of St Mark positioned above the angel and finally, the bull, representing St Luke, above the eagle. While Pujol only subtly coppered the Gothic invocation tiles, Ros strongly lustred the tiles bearing the *IHS* monogram. Gallissà also employed this decorative programme for his home (Can Camps, Barcelona, 1898-1899), as did Domènech i Montaner in Canet de Mar, which today operates as his House-Museum.

At Barcelona's 1892 National Artworks and International Reproductions Exhibition, besides lustre dishes by Ros and Urgell, and Santigós products, Pujol exhibited masterful, lustre-glazed border-tile reproductions of historicist Renaissance models from Seville and Toledo (preserved by the Barcelona Ceramics Museum and today at La Rajoleta Ceramics Museum in Esplugues de Llobregat)²⁵. Another lustre work is the Nazrid gazelle-decorated vase from the Alhambra – widely reproduced everywhere as in Esplugues – yet reinterpreted by Domènech i Montaner, who had shown a keen interest in this style since 1882²⁶. Furthermore, the hemispherical lustreware tile bearing a “T” for the Thomas family for their house and the lustre reliefs for Josep Vilaseca – architect of the Pia Batlló de Bach and Enric Batlló houses – were also manufactured at the Pujol factory, as were the three moulded, lustre-glazed tiles designed by Gallissà and applied to the façade of Puig i Cadafalch's Casa Amatller. However, the tiles applied around the coach entrance, on the stairs leading to the first floor and in the dining room were made by Mensaque and Fernando Soto (purchased at *Productes Ceràmics Tarrés, Macià i Cia*). The architect chose producers in the places of origin for his historicist models, and Pujol was commissioned to create stylised Modernista designs.

Trencadís, collage and Cubism avant la lettre?²⁷

One highly creative resource was *trencadís* – fragmented tiles united with lime mortar – which Gaudí envisioned as a kind of luminous skin (Giedion-Welcker, 1971). This technique consisted of cladding architectural surfaces with a skin made from broken ceramic, terracotta and glass pieces to form a mosaic of light and colour. Beyond a purely ornamental function, *trencadís* converts buildings into bodies more akin to nature,



6.St. Matthew the Evangelist,church of the Comillas Seminar, Pujol I Bausis, 1890.
Picture Jordi G. Noddings

transforming them into multiform, many-coloured, living beings. Sometimes the cladding is a purely abstract game; at other times, it breaks up a composition to re-assemble it so as to reconstruct the model, with or without its original configuration (Marín, 2007). Marín poses the question as to whether Gaudí was venturing into collage and Cubism – such as *Les Femmes d'Alger*, Picasso's first Cubist work, painted in 1907 – or into abstract art, which Kandinsky's 1910 watercolour officially launched. Giedion-Welcker had written that Gaudí's *trencadís*, created using the humblest of materials (builder's rubble) would constitute a prelude to the later Cubist *papiers collés* by Picasso, Gris and Miró, and to those of Dada-Merz and the Surrealist collages²⁸. *Trencadís* has also been defined as an advanced system of recycling waste ceramic from factories or debris from landfills of broken objects (Figuerola, 2002). His pupil, Josep Maria Jujol, was in charge of

the latter task. The Güell Pavilions²⁹ display blue and green, and mottled tiles applied to the brick walls while *trencadís* clads the outside of the stables' dome and its skylight, and

decorates the chimneys of the porter's building (1884-1887). It is also used on the medallions and undulating surfaces of Park Güell (1900-1902; 1914). Palau Güell (1886-1890) has poppy flowers, daisies and carnations in blue applied to the ground-floor ceilings, manufactured between 1860 and 1874 at Esplugues³⁰. The second floor shows tiles produced from five colour proofs of Gothic and Renaissance models chosen by Gaudí that recall his ornamentation studies (1878) in harmony with the building's historical interior, first fired in 1881 batches. Fragments of these were also applied to the chimneys and ventilation shafts, alongside pieces by other producers on the roof. The caramel-coloured tiles used to clad the ceramic gargoyle in the rear courtyard were meanwhile used to line windows and provide rainwater protection (Gueilburt, 2002). Casa Batlló (1904-1906) – nicknamed the “house of bones” – tells the tale of Saint George (Bonet, 2002) in the stone of its balconies. Its curved roof profile suggests a dragon's back, complete with a crest formed of pieces resembling upturned water pitchers and large, semi-cylindrical, almost spherical elements of different colours from yellow to red or blue. The evil dragon's scaly body, implied by the undulating façade, consists of coloured glass mosaic with ceramic discs that could have been taken from abstract art. The pieces surrounding the entrance – of red clay decorated in white slip and diagonally placed pearl enamel – were made by Sebastià Ribó (Gueilburt, 2002). As you enter the courtyard, these ceramics change shape and colour from ivory to pale then to dark blue, suggesting a natural light effect.



**7. St. John the Evangelist, church of the Comillas Seminar, PujoliBausis, 1890.
Picture Jordi G. Noddings**

Ramon Reguant (Barcelona) produced the stoneware chimney and the four-arm cross, which was fired at La Roqueta (Palma de Mallorca). Gaudí broke this into pieces to adapt them to the tower. The roofs of Casa Milà (1906-1910), otherwise known as La Pedrera (The Quarry), is a forest of chimneys, ventilator shafts and stairheads³¹, constructed of flat vaulting bricks clad in white tile fragments. Lluís Bru i Salelles (the first of a family of mosaic producers and the author of numerous tile designs preserved at AMEL) worked for Gaudí, who argued with the mosaicist over his thoroughness. Gaudí broke a tile and scattered the fragments over the mosaic, saying “Throw them on in handfuls, the stones! This is how you have to do it. No need to be so careful, or we'll never finish!” (Permanyer, 1987)³².

Other examples are the church crypt at Colònia Güell, a residential complex for the workers of a textile industry (Santa Coloma de Cervelló) and

Park Güell, documented in the Esplugues' factory books by Ginès Girbau who transported 12,000 tiles to Park Güell on 26 July 1904. Other references in the Esplugues' logbooks to Park Güell are recorded as consignments for “Eusebi Güell” and those for the Güell Colony, as for “Güell y Cia” (Duran, 2006). The brick rectory fireplace in the colony (1917) is in *trencadís* of blue and white tile – the blue made by Viuda e hijos de Juan Vila, delivered on 2 December 1913 (Medarde, 2008) – while brown and yellow mottled tiles are applied on the rear exterior walls alongside glazed yellow bricks. Behind the rectory

there is a fountain decorated with ceramic pieces from defective firings and leftovers from Gaudí's other buildings, built later than the rectory³³.



8. Gaudí's tympanum mosaic made by hundred of glass and ceramics bringing out the representations of the Catholic virtues, the ones of the country flora and Holy Trinity, church crypt of the Colònia Güell, Santa Coloma de Cervelló. Photo: PiaSubias

The work on the Concierge and Management Pavilions on Park Güell's carrer Olot entrance (1901-1903) shows designs created in white, fragmented tiles and ceramic mosaic medallions distributed on the rest of the undulating surface with broken white tiles from Esplugues from 1874 to 1902. The imperial staircase – including the famous dragon clad in *trencadís* – boasts walls that are clad in fragmented tiles laid out in regular polygons constructed on wooden moulds and surrounded by tile fragments all over their surface³⁴. The undulating bench designed by Gaudí and Jujol, twin creators of *trencadís*, was initiated around 1909. It defines the broad terrace which offers a panorama over

the city while crowning the space immediately below: the Hypostyle Hall (1903-1910). The latter was conceived as a market. The eighty-six columns supporting the terrace also incorporate a rainwater collection system. The ceramic and glass panels in some of its vaults were created by Jujol. The bench is clad in tile remnants, some from Esplugues and other factories, from other Gaudí buildings, or even expressly made, helping to define its serpentine structure. “Le constructeur de 1900,” as Le Corbusier wrote in 1957, was a builder in stone, iron or brick, a great artist. “Only those who touch the sensitive part of man remain and shall remain”³⁵.

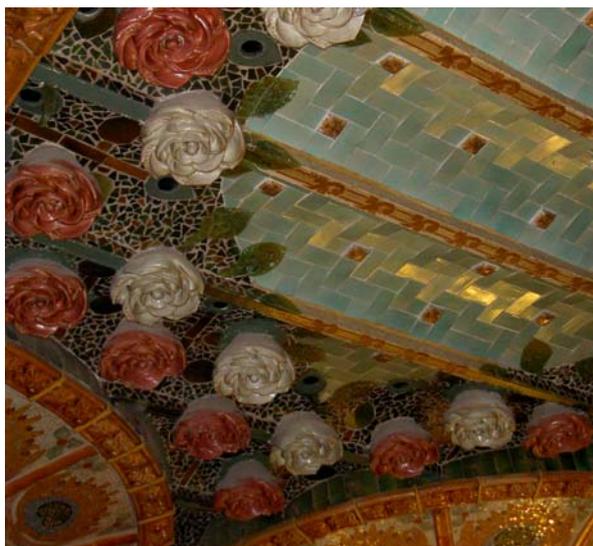
Ornamentation has been and will be colourful” – Gaudí³⁶

The Paris World's Fair in 1900 marks a high point in Art Nouveau, reaffirmed at Turin's 1902 Exhibition. Modernisme had entered private homes and begun to influence interior decor. Nature had abandoned the classical styles of the past. The sinuous curves and the *coup de fouet* or whiplash design characteristic of European Art Nouveau in the mid-nineteen-nineties had influenced more decorative composition, tending towards a stylisation that was understood as a simplification of form.

Joan Baptista Alós was the Pujol i Bausis factory's first art director. He designed tiles and introduced decorative arts draftsmen as creators of pattern tiles alongside architects and clients. One of those draftsmen was Lluís Brú Salelles, a scenery painter and mosaic maker. The houses of Lleó Morera (Barcelona) and Joaquim Navàs (Reus) by Domènech i Montaner are two buildings whose ceramic works parallel production in the Esplugues de Llobregat factory, displaying Bru's designs³⁷. Hipòlit Montseny (Reus) produced the relief ceramics.

The Palau de la Música Catalana (1905-08) by Domènech i Montaner shows mosaics on its facades and interiors that were made from 1905 to 1908. The ceramic tiles and *trencadís* on walls and columns or pieces moulded in high relief in architectural openings, arches, vault ribs, curved tiles, large roses in high relief around the beams and skylight, and the

Roman mosaics made with hard materials like marble for covering floors are integrated with other industrial arts, conforming to the architect's decorative scheme. Bru created so many mosaics there that he needed fourteen workers toiling under him. It also boasts mosaics by Lluís Leandro and Eliseu Querol. Among ceramics manufacturers, the one who worked most on the project was Josep Orriols, followed by Modest Sunyol, both working with clay items. Romeu Escofet worked on tiles, Cosme Toda on products, Antonio Vilar y Hermanos on ceramics, Pascual Ramos and Pujol on tiles, followed by Sanchis, Simó and Tarrés i Macià, all listed in the order of cost outlay.



9. Josep Orriols or Modest Sunyol ceramic manufacturers, Palau de la Música Catalana, Barcelona. Photo: Pia Subias

The facade mosaic which represents the Orfeó Català choral society singing to a queen, a symbol of Catalonia, was designed by Bru. The ceramic mosaic *Les Muses* gracing the semi-circular wall behind the concert hall stage depicts eighteen muses, all playing different musical instruments, an allegory for universal music. The muses' upper torsos are sculpted in relief by Eusebi Arnau³⁸ while their garments and the surrounding background are in *trencadís* by Bru (Permanyer, 1987). On the wall, centre stage between the muses, an image of the Orfeó Català's flag (1896) combines with the crest of Catalonia under a helm surmounted by a lire on the front and back. The crowns were converted into ceramics

at the Pujol i Bausis factory between 1896 and 1899 (No 35 in its catalogue) and into a mosaic by Bru. Domènech installed it in honour of his colleague and friend who died in 1903.

Interior spaces: practical use yet aesthetic purpose

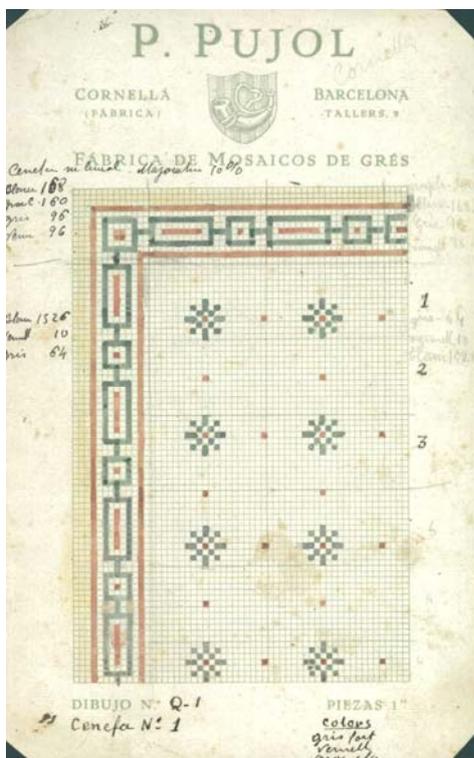
The hygienic quality of ceramics in architecture for functional, economic and aesthetic purposes made it possible to deploy a large decorative programme appropriate to their role. Tile production continued to use stencils – a paper cut-out covered in beeswax enabling fast application of the different colours in separate areas.

Examples include Hospital Santa Creu i Sant Pau (Barcelona) and the Institut Frenopàtic Pere Mata (Reus), both by Domènech i Montaner. The former was designed in 1901. The first stage (1902-1912) included administration pavilions, operating theatres, two observation pavilions and eight pavilions for patients. Esplugues provided the ceramic panels depicting the bull of Saint Luke and lion of Saint Mark (documented in January and March 1910) and supporting stoneware, sculptural works for the administration building doors. The right-hand door bears a cross with equal, concave arms while the left-hand one bears the four, red, vertical bars of Catalonia. The factory also produced the vaulted ceilings of the administration pavilion, stylised floral designs on shingles; floral and plant decoration around the “G” in Pau Gil i Serra – the hospital's promoter and patron – and the four-armed cross of the same length (a design preserved at AMEL) of the water towers of

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the nursing pavilions. It created fantasy figures in the tympani of the windows, painted in white on blue – the colours of Nostra Senyora de la Mercè – in the pavilions of Nostra Senyora del Carme; the floral motifs around the vaulted ceilings of the San Rafael, Senyora de la Mercè and Sant Salvador halls; and architectural ceramic for different parts of the patients pavilions. Elias Peris (Onda) provided the Apostle Paul bearing the city's crest and the old hospital, with Saint Luke and Saint Mark, the evangelists, applied in the tympani of the second-floor windows of the management pavilion at both front and rear; the eagle panels placed also rear and the panels bearing crests designed by Domènec i Montaner for the doors inside the management pavilion. Josep Romeu Escofet and Cosme Toda (Hospitalet de Llobregat) also supplied ceramics.

The Pere Mata Institute (Reus) is a city hospital. Yet the pavilion of the “Distingits” or distinguished persons, is the real highlight, brimming with flower and plant designs, mainly applied using a stencil – a common technique, as seen at both the Lleó Morera and Navàs houses. The dining room exhibits the Oranges design: stencilled in January and cut in February, 1,182 tiles were produced in March 1910. The hexagonal flower pattern (No 19 in the commercial catalogue) was also applied with a green background. Kitchen, bathrooms and pantries boast embossed tiles applied to the same spaces in those houses. In addition to these serial tiles are decorative works specifically made for Pere Mata which are now documented thanks to purchase of the Bru documentation by Esplugues in February 2000.



10. Stoneware mosaics, PujoliBausis (AMEL, Esplugues de Llobregat)
Photo: PiaSubias

Francesc Quer, technological innovations and the birth of contemporary ceramic

Francesc Quer (1858-1933) was the other technical director at Esplugues. Between 1896 and 1899 (Riu, 1992) he worked at the factory of Glaze and Ceramic Pigments Charles L'Hospied (Golfe Jean, established in 1888, where Jaume and Pau Pujol purchased raw materials and ceramic colours), and also at Côte d'Azur and Compagnie de Saint Valliere (France). By the turn of the century, he was the director at the Antoni Bayarri factory (Burjassot, Valencia) where he established the first factory for white, English-type clay in Spain. Then he was employed for just a few months at the Ludolf and Ludolf company in Rio de Janeiro in 1911, but by the end of that year he had rented a room in Esplugues de Llobregat. Otherwise, going by the first May 1913 payment for works found in the factory logbooks, and recalling the plans for the new factory that Pau Pujol wanted to build that same year, the idea of employing a technical director for the factory gains credence. Quer modernised, improved his white paste and

introduced English paste and stoneware mosaics, while continuing with red earthenware for relief pieces, testing new materials such as Vilabert flint and buying new machinery³⁹

for processing the English paste. It is said that the origin of the popular name of *La Rajoleta* – little tile – comes from this production of tiny stoneware mosaic tiles⁴⁰ introduced by him and inspired by ancient Roman mosaics. Pau Pujol opened another factory in Cornellà de Llobregat around 1925-27, but moved production back to Esplugues when it closed.

“Sorry, i had imagined that this porcelain served its purpose by being beautiful” – Quer

In early 1914, when Quer was just beginning to explore contemporary ceramic, researching enamels and colours as a new language, he defended this important belief. This was the year of his first exhibition of glazed stoneware pieces without any further decoration, the product of his research into enamels at Faianç Català, alongside paintings by Feliu Elias. Quer began to create pieces to be painted by Josep Aragay, Xavier Nogués, Francesc Domingo and Manuel Humbert, all Catalan painters who wanted to explore the language of ceramics. A precedent existed in Catalonia: Antoni Serra Fiter had also been working with painters, architects, sculptors and other artisans (from September 1904 to December 1908). In January 1909 he began to work in La Carmelitana factory in Olot⁴¹. In 1918, at the headquarters of the newspaper *La Publicidad*, Joan Sacs⁴² organised a small exhibition to celebrate Barcelona’s exhibition of French Art next to Quer pieces: “the first Spanish ceramist” was becoming another Catalan Deck follower⁴³. Two of his students, Josep Llorens Artigas and Francesc Elies, followed his line of inquiry into ceramic surfacing. Quer’s contribution, like that of many pioneers, went unnoticed despite Joan Sacs having denounced in 1931 a lack of public appreciation for high-fired pottery (fired at 1.300° C), in which form and covering are both decoration. He displayed mastery of ceramic art materials: form and enamel or glaze as the only decoration on stoneware and porcelain pieces. Ceramics had become contemporary art⁴⁴.

It is not known why Quer had to emigrate to Portugal. Whatever the reason, he went on to work for the Lusitania factory (Lisbon) and established another factory for them in Oporto (ca. 1931). He died in Lisbon on 12 April 1933. He had left his stoneware production logbooks to the Esplugues factory employee Joan Ferret (preserved by his sons Joaquim and Andreu) who continued production till 1937. Francesc Quer deserves research on his work to continue here, in Portugal, and I hope that Portuguese art historians (or even chemistry historians) will take up the torch to continue to explore the path that gave birth to contemporary ceramics.

Notes

¹Documentation preserved at the Archive Municipal Esplugues de Llobregat (AMEL).

²For previous origins see Bassegoda, p. 59-60 (2002) and Gueilburt, p. 15-20 (2002).

³Firings of *jaspiats* are recorded in the 1883, 1885 and 1888 Esplugues logbooks.

⁴See *El reflex d’un temps. Can Tinturé. Col·lecció de rajola de mostra Salvador Miquel* (2003).

⁵*Conversaciones con Bergós*. See Codinachs, p. 93 (1982). Gaudí “Apunts sobre la casa familiar”, (notes 1 and 2) ca. 1880. See Bonet, p. 101 (2002).

⁶Relief tiles and other moulded construction elements were manufactured using the “tight” press-moulding procedure. Plaster moulds were made and the clay was pressed into the walls of the mould by hand.

⁷This was called *escacat* (checked pattern), but also *mocadoret* – small handkerchief, a sailing motif – or else, *cartabó* – a set square used in construction – at different historical periods in Catalonia and Valencia.

⁸Later, Josep Romeu i Escofet. See Casanova (2000, 2009).

⁹Ribó made ceramic works for the Casa Amatller (Barcelona) and Casa Coll i Regàs (Mataró), both designed by Puig i Cadafalch, and for Gaudí's Casa Batlló (Barcelona).

¹⁰Catalan engineer Baldomero Santigós worked at Macià, Santigós y Cia on the *Exposició General Catalana* in Barcelona, 1871. Ricard Santigós and Josep Baró were his collaborators (Subias, 2006). After moving to Madrid in 1878, Baldomero Santigós and the banker Bruno Zaldo (Casanova, 2000) established the Cerámica Madrileña de Santigós y Cia.

¹¹Antonio Sama Garcia's PhD thesis on *Gaudí and the architecture of the Renaixença in Comillas* (2011) sheds no further light. No original documentation has been preserved in Comillas (Conversation with the author on 11/12/2012).

¹²Findings noted in his diary of 1893.

¹³Font i Gumà wrote *Rajoles valencianes y catalanes* (Valencian and Catalan Tiles) in 1905, illustrated by himself and Antoni M. Gallissà, who were students together (1879-1885).

¹⁴Records exist of heraldic tiles in the Esplugues factory logbooks since 1891. See Subias (2002).

¹⁵Oliva de Vilanova printed the only tile catalogue found probably on 20 December 1921, showing that Esplugues paid the prestigious printer's November bill. It should be recalled that no other previous tile publication has survived, though later mosaic catalogues printed by Oliva de Vilanova have been preserved.

¹⁶I want to thank Manuel Medarde, archaeologist and secretary of Comissió de la Colònia Güell – Arquebisbat de Sant Feliu de Llobregat, for having shown me Can Soler de la Torre and the rectory in Santa Coloma de Cervelló on 6 March 2012.

¹⁷In response to Antoni Moragas i Spa (2000), "L'arquitecte Antoni M. Gallissà i Soqué i el Modernisme", in *I Miscel·lània Grup d'Estudis d'Esplugues*, Mercè Vidal i Jansà (ed.), *Esplugues i el Modernisme. Patrimoni i ciutat*. Conference cycle, March-April 1999, p. 57.

¹⁸Modernity that followed the eighteenth-century direction on colour applied to public buildings, such as polychrome shingles on the roofs and ridging elements.

¹⁹The Ceramics Museum of Barcelona, incorporated into Disseny Hub Barcelona (DHUB) in 2013, conserves two Serra vases and four porcelain plates with gold work drawn by Léon V. Solon in the late 1890s for Minton's Ltd, which were purchased for the city's museums after Barcelona's 1907 International Exhibition of Fine Arts and Art Industries.

²⁰He wrote *Details and Ornaments from the Alhambra* (1842) and *The Grammar of Ornament* (1856).

²¹Ceramist Eugène-Victor Collinot and his collaborator Adalbert de Beaumont, who had first encouraged Deck to look at Islamic prototype, joined Deck in his early exploration of Islamic ceramics. In 1859 they wrote *Recueil de dessins pour l'art et l'industrie* (A Collection of Designs for Arts and Industry), an influential design book that revealed the arts of the Islamic world as a new source of inspiration.

²²See *Histoire des Faïences Hispano-moresques á reflets métalliques* (1861). See Subias (1996).

²³Gaudí believed that "our country's traditions" were highly valued abroad yet spurned at home. He was referring to lustreware plates and vases. See Gaudí (1878).

²⁴Ros and Urgell visited the South Kensington Museum (renamed the Victoria and Albert Museum in 1899) in London, the Archaeological Museum of Madrid, the Cluny Museum in Paris and the Sèvres Museum to rediscover the old processes.

²⁵The Museological Project written by Joan Claudi Minguell, Emili Sempere and Pia Subias, presented on 31 January 2001, announced the importance of Modernisme artworks in the Ceramics Museum of Barcelona and mentioned pieces to be shown in the new Esplugues

museum. See Minguell (2006). They are currently held in deposit at Can Tinturé, thanks to the agreement signed with the Barcelona City Council.

²⁶See the cover of his *Biblioteca Artes y Letras*, published by Montaner i Simon, started the year before.

²⁷A reading of Marín (2007) suggested this heading.

²⁸“What these painters did in their time with paper, wallpapers, pieces of newspapers and other everyday ‘rubbish’, creating with them veritable marvels, what Kurt Schwitters transformed into [the] new poetry of painting with old tram tickets, wires, buttons and wood-shavings, was created by Gaudí out of the construction rubble of his own work and milieu”. See Giedion-Welcker, p. 29 (1971).

²⁹For early mosaic works see Figuerola (2002).

³⁰Poppy flower is one of the other, similar pattern tiles found in excavations on the premises in the earthenware corner in 2000 so previous findings (Subias, 1997, p. 493), and that preserved at the Ceramics Museum of Barcelona (MCB), today on loan to Can Tinturé which I attributed to Valencian manufacturers, have been updated. Those pieces were found with industrial tiles from the Pujol i Bausis factory, so we can be sure that the ones from the MCB were also manufactured at Esplugues from 1860.

³¹Read the description of the construction project by Bassegoda’s contractor, p. 67-68 (2002).

³²The draughtsman’s grandchild explained that Bru always maintained a relationship with the architects who chose among several of his drawings (Permanyer, 1987). We will have to wait for Marta Saliné’s PhD thesis to know for which of Gaudí’s buildings Lluís Bru created mosaics.

³³Gaudí is not the creator because there are no documented visits to the colony from 1914 onward. See Moras (2008).

³⁴Some of the unused polygons are preserved at the Park Güell Museum House and in the Reial Càtedra Gaudí. See, Bassegoda (2002).

³⁵See Giedion-Welcker (1971).

³⁶Gaudí “Apunts sobre la casa familiar”, (notes 1 and 2) ca. 1880, in Bonet Armengol, *Gaudí. The Origins*, p. 101 (2002).

³⁷See Saliné (2006), Subias (2002, 2006).

³⁸They recall the sculptured terracotta upper torsos in relief from the façade of the Reial Acadèmia de Ciències i Arts, by Josep Domènech i Estapà (1883) with the collaboration of Josep Vilaseca.

³⁹A trommel and a Dorst press are mentioned in the factory logs.

⁴⁰AMEL preserves a letter from Jaume Pujol to a worker named Miguel which commissioned *rajoletes* that are 13 x 13 cm square. He uses the word *taulell* for tiles 20 x 20 cm square, on 13 March 1884.

⁴¹See Subias (2005). Curiously, the painter Xavier Nogués worked with Antoni Serra in 1906 and would work with Francesc Quer ten years later.

⁴²Joan Sacs is the name Feliu Elies used as an art critic.

⁴³Remember that, apart from the Islamic research, Deck also explored other cultures later in his career. In 1884, he exhibited flambé glazes that imitated the Chinese *sang de boeuf* or oxblood finish. Deck’s celadon glaze, used over designs incised into the body of the pottery, was also influenced by Chinese craquelure effects. The asymmetrical designs and motifs of Japanese ceramics, exhibited at Paris’s 1878 Exposition Universelle were promptly reflected in Deck’s offerings in the 1880 Union Centrale exhibition. Furthermore, Venice’s glittering Byzantine mosaics inspired Deck to develop a gold underglaze to be used for backgrounds. He began a ceramic revolution. He was the first to explore historical styles in the name of progress in ceramics. See Todd (1992).

⁴⁴For the ceramist as art researcher, see Subias, *Serra d’Or* (1997).