



History of sciences

## Lasuén's pterodactyl: An early use of a pterosaur in plastic arts

*Le ptérodactyle de Lasuén : une utilisation précoce d'un ptérosaure en arts plastiques*

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## ABSTRACT

Among the sculptures adorning the former building of the Faculties of Medicine and Sciences (1893) in Saragossa (Spain) is one that represents a pterosaur. It is a work by D. Lasuén based on one of the first, but little known, restorations of these animals, drawn and engraved by T. Susemihl more than half a century before. Although it seems out of place, this sculpture was simply seen as a symbol of zoology. We suggest that it may have several significations. Besides embodying the animal kingdom, it may have been a surrogate of the dragon and thus a reference to the House of Aragon through its dragon-slaying holy patron, Saint George.

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## R É S U M É

Parmi les sculptures ornant l'ancien bâtiment des Facultés de Médecine et des Sciences (1893) à Saragosse (Espagne) se trouve un ptérosaure. Il s'agit d'une œuvre de D. Lasuén, inspirée par une reconstitution méconnue de ces animaux, bien que l'une des plus anciennes, dessinée et gravée par T. Susemihl plus d'un demi-siècle plus tôt. Malgré sa singularité, cette sculpture a été simplement considérée comme une symbolisation de la zoologie. Il est suggéré qu'elle est, en fait, polysémique. Non seulement elle représenterait le règne animal mais, en outre, il s'agirait d'un ersatz de dragon et, par là même, une allusion à la Maison d'Aragon à travers son saint patron sauroctone, Saint Georges.

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## 1. Introduction

In 1856, the geologist B. Cotta (1856) presented a plan to incorporate prehistoric forms into architecture by adorning a portal for a geological museum (Fig. 1). Two “Juradrachen”

(one actually the skeleton of a bat similar to one figured by Cheselden (1733), ch. 5) crowned this singular entrance (they were omitted from the eventual construction at the Freiberg Mining Academy [Thenius, 1996], fig. 4.31). Such structural designs, in which sculptures of Mesozoic reptiles were used to decorate façades, were realized in later buildings that are somehow related to science or nature, such as that of the British Museum (Natural History) in London in 1881 (see e.g., Cunningham (2001)) and the aquarium of the Zoological Garden in Berlin in 1913 (see e.g., Lange (2006)).

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**Fig. 1.** Design of an entrance of a geological museum as figured on Cotta's (1856) frontispiece.

**Fig. 1.** Projet d'un portail pour un musée de géologie, tel qu'il figure sur le frontispice de Cotta (1856).

The former edifice, known since 1992 as the Natural History Museum, shows in particular several terracotta pterodactyls, or Mesozoic flying reptiles (Pterosauria) (Fig. 2). They are casts of clay models by the unappreciated sculptor "Monsieur" Dujardin (forename uncertain), based on drawings by the architect A. Waterhouse under the scientific supervision of the anatomist R. Owen. A much lesser known use case of a pterosaur image to adorn a scholarly edifice can be seen on a former building for the Faculties of Medicine and Sciences in Saragossa (Aragon, Spain; Fig. 3). The aim of the present work is to try to elucidate the origin of this early use of a pterosaur in this field of the visual arts.

## 2. Description and source

The artwork is a medallion on the north-northwestern lateral façade of the main building and can be seen from Calle del Doctor Cerrada. It is sculpted in whitish limestone from Fonz (Aragon), the physical properties of which make it very appropriate for carving. A pterosaur is easily recog-

nized (Fig. 4) thanks to the sculptor's naturalistic attention to details. The specimen's posture is not especially reminiscent of either flying or walking. It appears discretely but richly toothed and has a small auricle. The neck is rather long and strongly flexed; the wings are not extended, but semi-spread. There is no propatagium nor cruropatagium. The feet may be webbed. The tail is remarkably short.

The edifice, which is commonly known by synecdoche as *Paraninfo* (amphitheatre), is considered the masterpiece of the architect R. Magdalena y Tabuena. One of his friends, D. Lasuén Ferrer (b. 1853, La Muela-d. 1916, Saragossa), an essentially modern style sculptor (e.g., [Rincón García, 1984], pp. 135–149, [Serrano, 2000]; Fig. 5), is held to have been the coordinator of the sculptural works of the building ([Rincón García, 1984], p. 141). The team comprised a (small) number of artists, such as J. Lluch y Prat, but it is believed that Lasuén made himself most or all of the medallions of the façades ([Anon, 1893b], p. 4, [Borrás Gualis, 1968], p. 122, [Fatás, 2001], p. 30, [Serrano, 2000], p. 345). The date of achievement of all the sculptures of the former Faculties of Medicine and Sciences in Saragossa is alleged to be 1893 ([Rincón García, 1984], pp. 137, 141). However, the initial Board of Works met much earlier, in the middle of 1889, to discuss the main statues ([Hernández Martínez, 1993], p. 71) and the building work was finished in the spring of 1892, well before the opening ceremony, which took place in October 1893 ([Hernández Martínez, 1993], p. 72, [Repullés y Vargas, 1894], p. 11, [Tomeo Lacrué, 1962], pp. 207–208). Because the statuary is so extensive, it is doubtful that it was made in a span of only a few months. Consequently, the pterosaur may actually have been completed in 1891 or 1890.

Because by the late sixteenth century many pterosaur restorations had been published, one might think that it would be vain to track down the model Lasuén used to carry out his work. This is all the more believable because pterosaurs are emblematic animals that were frequently portrayed in popular publications or in books in which paleontology was only superficially evoked. However, in these cases the illustrations were not only generally unoriginal, but also very little varied. For instance, the copper engraving of "*Pterodactylus crassirostris*" given by the naturalist A. d'Orbigny (1849) (figs. 8, 107), which is itself a modification by E. Salle of a partly erroneous reconstruction by the palaeontologist A. Goldfuss (1831), (pl. 9 fig. 1), was repeatedly published in the following decades, such as by Pérez Arcas (1886) (fig. 265) and Galdo (1888), (fig. 278). Because Lasuén's pterosaur is obviously not based on a frequently published figure and because at the time of its realization only a limited number of scientific books in which paleontology was substantially taken into account were broadly distributed in Spain, the source of this artwork can be identified with a good degree of confidence.

The books from which Lasuén most likely looked for inspiration are the *Compendio de Geología* by the palaeontologist J. Vilanova y Piera (1872) and the first edition of the *Principios de Geología y Paleontología* by the freelance astronomer J. Landerer y Climent (1878). In the second half of the nineteenth century, the *Compendio de Geología* (Vilanova y Piera, 1872) was possibly the most influential book in Spanish Earth Sciences. In this interesting work, Vilanova y



**Fig. 2.** Terracotta “winged lizard” ornament in the Natural History Museum (London). In addition to the terracotta representatives, the animal is displayed in the foliate ironwork cresting along the ridgeline of the main roof. Cunningham (2001) (p. 30) remarked how privileged the pterosaurs are in the adornment of this building. Interestingly enough, the example on the left was figured in print as early as 1878 (delineation of M. Adams in Anon (1878), post p. 422) after a sketch by Waterhouse (see Cunningham (2001), pl. 52).

**Fig. 2.** « Lézards ailés » ornementaux en terre cuite, Muséum d’Histoire naturelle de Londres.

Piera (1872) (pl. 29 fig. 68) represented the pterosaurs by a mere reduced line drawing copy of the above-mentioned figure in Goldfuss (1831) (pl. 9 fig. 1). A bit later, the same author ([Brehm, 1883], fig. 92, [Vilanova y Piera, 1876], fig. 94) illustrated the same species, but this time through a reproduction of the engraving in d’Orbigny (1849) (figs. 8, 107). However, in *Principios de Geología y Paleontología*, Landerer (1878) (fig. 37; Fig. 6) provided a wood engraving captioned “*Pterodactylus crassirostris*” that is probably the model upon which Lasuén sculpted his pterosaur. There are indeed some differences (such as the shape of the head), but they can readily be explained by moderate artistic license with the model.

Although tracking down in detail the history of the engraving in Landerer (1878) (fig. 37) is difficult and

beyond the scope of the present work, it appears to be a reversed element of one published in 1837 in Paris, initially in a simple collection of diverse portraits of plants and animals and soon after with an accompanying text by the naturalist P. Boitard ([Andrew et al., 1837], engr. 110). Although not commonly published, it is also found in other books such as the *Histoire naturelle des Drogues simples* by the pharmacologist G. Guibourt (1849) (fig. 13), the *Éléments de Géologie et de Paléontologie* by the geologist C. Contejean (1874) (fig. 347), the French adaptation ([Brehm and Sauvage, 1885], figs. 80, 161, 518) of the part on rep-



**Fig. 3.** Aspect of the former building for the Faculties of Medicine and Sciences in Zaragoza when inaugurated (wood engraving of T. Capuz made from a photograph in Anon (1893a), p. 1, and published in Reparaz (1893), p. 285).

**Fig. 3.** Aspect de l’ancien bâtiment principal des Facultés de Médecine et des Sciences de Saragosse à l’époque de son inauguration (gravure publiée dans Reparaz (1893), p. 285).



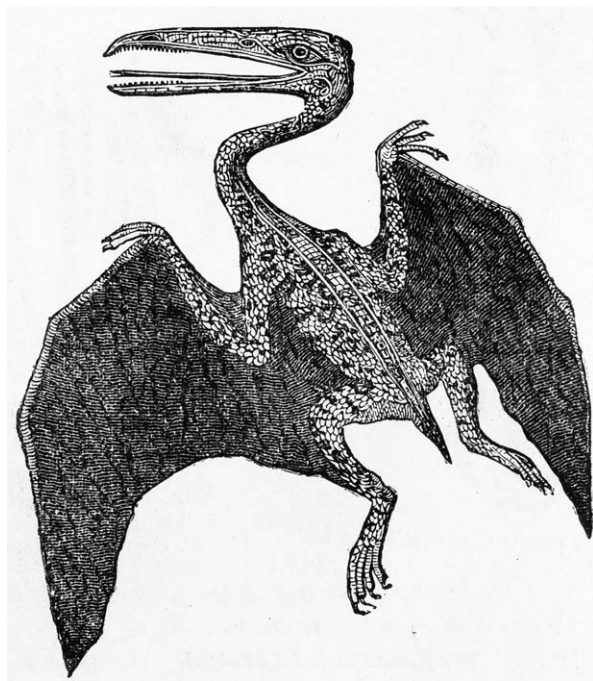
**Fig. 4.** Pterosaur medallion in a lateral façade of the former main building for the Faculties of Medicine and Sciences in Zaragoza.

**Fig. 4.** Médaillon représentant un ptérosaure, situé sur une façade latérale de l’ancien bâtiment principal des Facultés de Médecine et des Sciences de Saragosse.



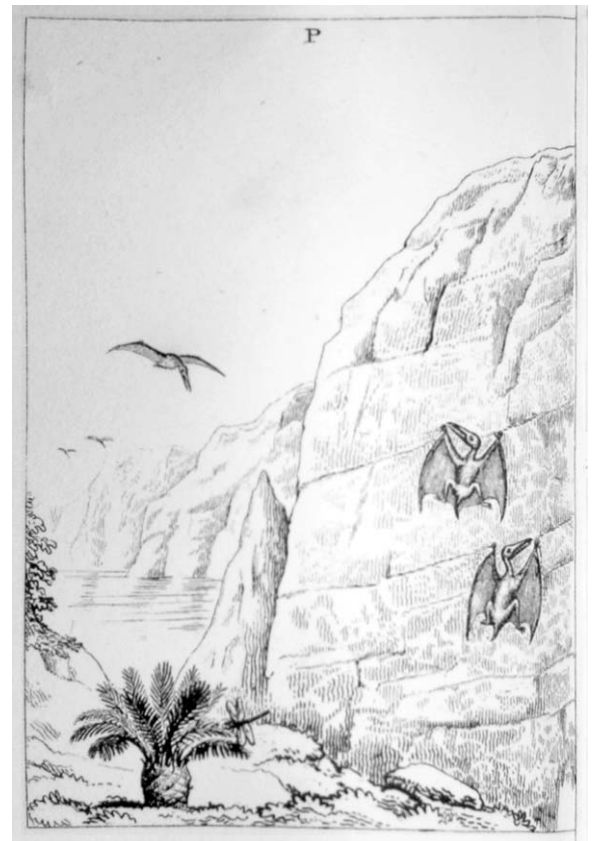
**Fig. 5.** Portrait of Lasuén at about the time he sculpted the pterosaur of the former Faculties of Medicine and Sciences in Zaragoza (from Anon (1893b), p. 4).

**Fig. 5.** Portrait de Lasuén réalisé vers l'époque où il sculpta le ptérosaure des anciennes Facultés de Médecine et des Sciences de Saragosse (emprunté à Anon (1893b), p. 4).



**Fig. 6.** The early restoration of *Pterodactylus antiquus* published in Landerer (1878) (fig. 37). It initially appeared in print in one of the first original scenes from Mesozoic times published in France ([Andrew et al., 1837], engr. 110).

**Fig. 6.** Ancienne reconstitution de *Pterodactylus antiquus*, telle qu'elle apparaît dans Landerer (1878) (fig. 37).

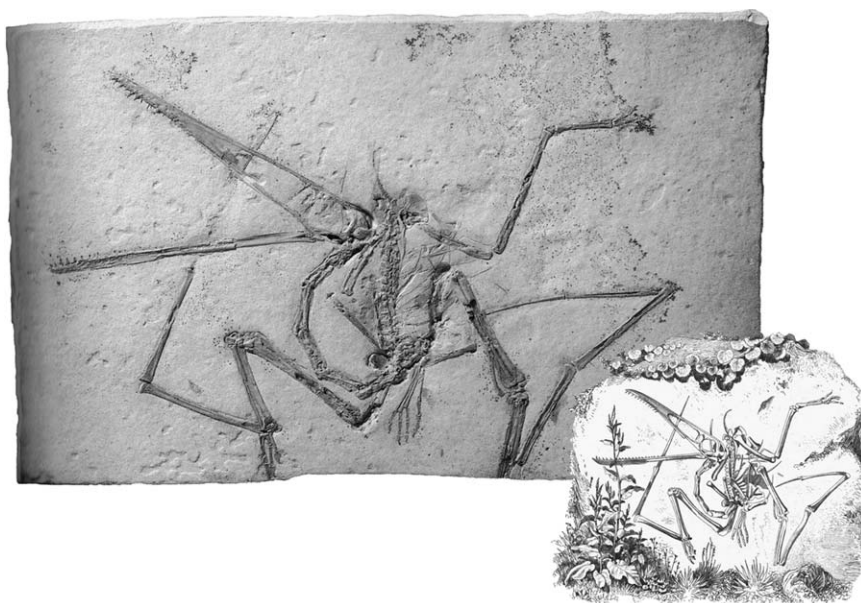


**Fig. 7.** "Imaginary restoration of Pterodactyles..." from Buckland (1836) (pl. 22 fig. P).

**Fig. 7.** Reconstitution de «ptérodactyles» présentée dans Buckland (1836) (pl. 22 fig. P).

tiles and amphibians of Brehms *Thierleben* (Brehm, 1878), and the iconic *Le monde avant la création de l'homme* by the astronomer C. Flammarion (1886) (fig. 302). Though the two books are different, Contejean's (1874) work was doubtless inspirational to Landerer (1878) and more than the pterosaur figure was borrowed from him in the more humble *Principios*.

The engraving in Andrew et al.'s (1837) *Galerie* (engr. 110) bears an abridged signature that appears to say "Susemihl delineavit et sculpsit". This reveals that T. Susemihl (b. 1772, Hopfgarten-d. 1852, Paris), a Hessian artist and engraver who had settled in France in 1805 and was naturalized French in 1848 ([Anon, 1849; Nagler, 1848], p. 4) is author of both the drawing and engraving. The posture that Susemihl gave to his pterodactyl suggests that he was inspired by a picture in the recently published contribution by the geologist and clergyman W. Buckland to the so-called "Bridgewater Treatises" ([Buckland, 1836], pl. 22 fig. P; Fig. 7). As already remarked by the paleontologist O. Abel (1925) (p. 94), this latter would be copied or imitated a number of times throughout the nineteenth century (see e.g., Calkins (1853), fig. 2, and also Lecoq (1838), fig. 58, for a reuse in a larger scene). It is actually derived from one published by Goldfuss (1831) (pl. 9), which had been much less distributed than Buckland's, but that is the first tentative



**Fig. 8.** Holotypic specimen of *Pterodactylus antiquus*, currently housed in the Bavarian State Collection of Palaeontology and Geology (Munich). It is the first pterosaur described (Collini, 1784) and christened (Cuvier, 1809). The lower right corner inset shows a steel engraving after the artistic rendition of this fossil by A. Fries ([Gervais, 1839], pl. 620 fig. 1).

**Fig. 8.** Holotype de *Pterodactylus antiquus*, actuellement conservé dans la Collection de Paléontologie et Géologie de l'État bavarois (Munich).

restoration of pterosaurs in their environment after *Duria antiquior* (De la Beche, 1830). In both Goldfuss' and Buckland's drawings the pterosaurs are shown in two attitudes: flying and clinging to a rocky slope. Interestingly enough, Susemihl's pterosaur (Fig. 6) (and others of his engravings) strongly "inspired" Boitard (1861) (e.g., *post* p. 80) in his "Études antédiluviennes" (which is no surprise since the two men were friends; [Andrew et al., 1837], p. 17, [Boitard, 1838], p. 291). In turn, Boitard's picture was copied (with the addition of an ingrained mistake in the reconstruction of the pterosaur hand) by the illustrator E. Riou for the famous *La Terre avant le Déluge* by the science popularizer L. Figuier (1863) (fig. 132). And this is possibly the first American edition of this book (Figuier, 1866), or a subsequent one, that the painter A. Willard based on for what is one of the very first paintings in which a pterosaur appeared (1872; see Farlow and Brett-Surman (1997), *post* p. 306).

The species *Pterodactylus crassirostris* was reallocated to various genera before finally being fixed in *Scaphognathus* by the zoologist A. Wagner (1861) (pp. 518–519). Obviously, but contrary to Landerer (1878) (pp. 305–306), Susemihl's engraving does not represent this large-toothed primitive pterosaur (see e.g., Wellnhofer (1991)). Actually, as revealed by Guibourt (1851) (p. 324), it is a restoration of the typical long-snouted pterodactyloid, *Pterodactylus antiquus* (Fig. 8).

At the time of the construction of the *Paraninfo*, the head of the department of Natural History of the University was the naturalist A. de Segovia y Corrales. He does not seem to have had a say in the choice of the subjects to be sculpted by Lasuén. Though a poor, skewed copy of Goldfuss' (1831) figure (pl. 9 fig. 1) illustrated the title page of a book of his (Segovia y Corrales, 1900), this was probably a mere editorial choice, possibly inspired by the cover of a volume of

the *Enchaînements du Monde animal* by the palaeontologist A. Gaudry (1890). Admittedly, he is also among the numerous authors who recycled d'Orbigny's (1849) (figs. 8, 107) iconography ([Segovia y Corrales, 1919], fig. 232) but, in any event, he showed a limited interest in pterosaurs.

In fact, the chemist M. Tomeo Lacrué (1962) (pp. 209, 538) mentioned that the motifs of the *Paraninfo* were mostly made under the advice of the pharmacist H. Gimeno y Fernández-Vizorra (see also Hernández Martínez (1993) (p. 61)), whose physician brother Joaquín was a member of the initial Board of Works and the main promoter of the construction of the *Paraninfo* (e.g., Duce González et al. (2000b), Fatás (2001), p. 49, Hernández Martínez (1993), p. 71, Moralejo Alvarez (1993), p. 16, Tomeo Lacrué (1962), p. 206). The physician F. Solsona (2005) (p. 25) concurred that Gimeno was the author of the selection of the symbols of the façades, but he added that the philosopher A. Hernández Fajarnés and the chemist B. Solano y Torres were his associates in this task. Although the *Principios de Geología y Paleontología* are most probably the source of Lasuén's inspiration, Gimeno might have owned the above-mentioned *Histoire naturelle des Drogues simples* because of his profession, so that there remains a slight doubt as to which book presenting Susemihl's figure was in fact used by Lasuén. On a side note, Magdalena may have become acquainted with the pterodactyl years before this episode thanks to a book by one of his famous and talented colleagues, E. Viollet-le-Duc (1879) (fig. 52).

### 3. Symbolism and perspective

According to the architect E.M. Repullés y Vargas (1894) (p. 35), the *Paraninfo* "*Pterodactilus*" (*sic*) is an emblematic representation of zoology (see also Fatás (2001), p. 41,

Laguía Minguillón (1985), p. 166, Tomeo Lacrué (1962), p. 538). Although studies of extinct and extant forms were (or, much rather, should have been) hardly any more considered real separate disciplines since the works of the anatomist G. Cuvier (e.g., Cuvier, 1817), it remains puzzling that an animal that disappeared long ago was chosen to symbolize the study of animal life. This is all the more striking because no specimen of any pterosaur had been found in Spain (let alone Aragon) at the time. In fact, the first remains of Spanish pterosaurs were cited much later (Kühne, 1966), long after the first reliable documentation of remains of the group in Germany (Collini, 1784), the United Kingdom (as avian [Mantell, 1827]), France (as indeterminate saurian [Thiollière, 1850]), Austria (as lacertilian [Bunzel, 1871]), the United States (Marsh, 1871), Czechia (as avian [Fritsch, 1881]), and other countries. In fact, the whole Iberian pterosaur record is still quite poorly known today (Ruiz-Omenaca, 2000).

A more expected choice for zoology would have been, for instance, the brown bear, which was more widely distributed in sixteenth century Spain than it is today (Nores and Naves, 1993) and was especially widespread in northern Aragon (Gortazar et al., 2000). A possible clue to why a pterosaur was represented on the building comes from the baluster tops of the railings. They are ornamented with a supposed stylized little bird (Fig. 9) designed by Magdalena herself ([Fatás, 2001], p. 23). They are strikingly dragon-like, which might not be accidental. Indeed, the dragon has some importance in Aragonese mythology. For instance, it was said that a dragon lived in a cave in the Oroel crag ([Lera, 2008], pp. 80, 82) and, according to the friar and chronicler Salimbene de Adam (1999), a “draco horribilis” popped up in front of Peter III of Aragon the very year of his crowning. But, above all, the dragon has long been a symbol of the House of Aragon, for the most famous of dragon-killing saints, Saint George of Lydda (see Varazze (1998); see also Didi-Huberman et al. (1994)), is the patron saint of the country (Fig. 10), whose name so closely resembles that of the legendary creature (e.g., Fatás, 2000; Fatás and Capalvo, 1999; Fatás and Redondo, 1995).



**Fig. 9.** Tops of the railings of the former building for the Faculties of Medicine and Sciences in Zaragoza (Calle del Doctor Cerrada).

**Fig. 9.** Couronnement des grilles de l'ancien bâtiment des Facultés de Médecine et des Sciences de Saragosse (Calle del Doctor Cerrada).



**Fig. 10.** Lord Saint George, patron of the Kingdom of Aragon ([Castellano y de la Peña, 1919], cover).

**Fig. 10.** Saint Georges, patron du Royaume d'Aragon ([Castellano y de la Peña, 1919], couverture).

Also enlightening is the presence of a pinna on the head of Lasuén's pterosaur. This is reminiscent of the interpretation of pterosaurs as bat-like mammals (e.g., [Ebel, 1808], pp. 133–134, [Newman, 1843a], pp. 36–37, 128, 130–131, 143–147, [Newman, 1843b; Soemmerring, 1812, 1820a,b; Spix, 1820]). Restorations of pterosaurs recalling chiropterans perpetuated in the second half of the sixteenth century (see e.g., Zimmerman (1856), frontispiece, recycled in Flammarion (1886), fig. 286; see also Padian (1987)), but this hypothesis was much outdated by the time the Saragossan “winged lizard” was chiseled. Auricles, ideally those of a porcupine according to L. da Vinci ([Richter, 1883], pp. 292–293), are common attributes of dragons (e.g., Borges and Guerrero, 1967). Since there are no such features in Susemihl's picture, one might wonder if this is not a veiled (if not unconscious) reference to these fabulous beings.

Indeed, pterosaurs are no doubt the genuine animals resembling most the mythical dragons. This has been pointed out in passing by a great variety of authors. For instance, Buckland (1835) (pp. 217–218) wrote that *Pterodactylus* resembled “nothing that has ever been seen or heard-of upon earth, excepting the dragons of romance and heraldry” and this reminiscence was raised later in the title of the famous semi-popular book on pterosaurs of the palaeontologist H. Seeley (1901). It is also worth mentioning that a naturalist (and discharged dragoon) of the calibre of J.-B. Bory de Saint-Vincent (1828) (p. 345) even believed that pterodactyls and dragons may be one and the same animal. Interestingly enough, Contejean (1874) (p. 639) compared the pterodactyls to “*les dragons de la fable*”.

Incidentally, some early illustrations of extinct reptiles owed less to what was known of the skeletal anatomy of the latter than to pictorial conventions of an ancient



**Fig. 11.** Sculptures of *Coloborhynchus cuvieri* in the Crystal Palace Park. Originally placed in the genus *Pterodactylus* (Bowerbank, 1851), this species is nowadays generally considered as belonging to *Coloborhynchus* (see e.g., Frey et al. (2003), p. 60, Unwin (2006), p. 287).

**Fig. 11.** Sculptures de *Coloborhynchus cuvieri* dans le Parc du Crystal Palace.

artistic custom exemplified by the countless painting of Saint George and the Dragon ([Rudwick, 1992], pp. 80, 242). Likewise, the restored reptiles of *Duria antiquior* (De la Beche, 1830) may have been influenced by a gouache painting of a dragon attributed to the Reverend G. Howman ([Rudwick, 1992], p. 257), which is itself believed to have been inspired by the 1828 discovery of a pterosaur by M. Anning ([Torrens, 1995], p. 266). A noteworthy example of a dragonsque pterosaur may be the one drawn and engraved by J. Emslie for a popular demy quarto geological diagram “illustrating the various organic remains” (Reynolds, 1849).

The existence of a hidden regional meaning in the *Paraninfo* pterosaur is supported by the choice of the emblem for botany (which is situated on the side of the pterosaur roundel). It is the reflexed crag-lily, an extant, although exotic, plant that has a special connection with Aragon because its generic name is dedicated to the adoptive Saragossan botanist P. Echeandía y Jiménez ([Gómez Ortega, 1798], pp. 90–91). In addition, a predilection for Aragonese savants (F. A. de Artiga, I. J. de Asso y del Río, F. de Azara y Perera, F. Ballarín y Causada, P. Sánchez Ciruelo, J. Falcón, M. La Gasca y Segura, F. Loscos y Bernal. . .) is obvious in the sculptural works of the edifice, which are rich in symbolic ornaments as a whole ([Fatás, 2001], pp. 40, 44–45, 69–93, [Laguía Minguillón, 1985]). Interestingly enough, Gimeno was a pundit and apostle of Aragonese culture (Duce González et al., 2000a). One may therefore suggest that he easily perceived the ideal character of a pterodactyl as the most dragon-like and, thereby, ideally Aragonese animal to represent zoology on a façade of the Faculties of Medicine and Sciences.

Pterosaurs were very rarely used as models in nineteenth century plastic arts. Lasuén’s pterodactyl indeed appears

to be the first one carved in stone and with little doubt the only one from that time that was brought into play in building architecture outside England. Actually, the French state commissioned in 1852 the execution of the bronze of a pterodactyl for the Garden of Plants in Paris, but the project was soon abandoned (Knoll & López-Antoñanzas, in prep.). The natural history artist B. Waterhouse Hawkins was therefore the first to bring to completion (in iron-framed concrete) models of pterosaurs (Fig. 11). They were made for the Crystal Palace Park at Sydenham ([McCarthy and Gilbert, 1994], pp. 70, 75) under the direction of Owen and unveiled in 1854 (small plaster model “spin-offs” from Waterhouse Hawkins’ work were sold later; see e.g., Tennant, 1858; Ward, 1866, pp. 80–81). Incidentally, the pterodactyl also figured among the plaster animals created to decorate the Trocadéro waterfall for the French



**Fig. 12.** An unconventional interpretation of the classical combat of Saint George by Waterhouse Hawkins (retouched albumen print, dated 1873/1868, of an ink-and-wash drawing, The Academy of Natural Sciences, Philadelphia). The dragon is evidently pterosaurian and the location is incongruously reminiscent of Fingal’s Cave (compare with Fig. 10). The same album contains a photoprint (dated 1871) of a drawing of the same author showing a design for the end wall of an indeterminate museum hall on which a medallion, flanked by two additional long-tailed pterosaurs, bears a similar mythical (and mystical) scene. The speculation that Saint George’s dragon might have been a pterodactyl was mocked in the famous Victorian humour magazine *Punch* (Anon, 1860).

**Fig. 12.** Une interprétation peu conventionnelle du combat classique de Saint Georges par Waterhouse Hawkins (Académie des Sciences naturelles, Philadelphie).

national holiday of 1883 (Knoll and López-Antoñanzas, in prep.).

Interestingly enough, Waterhouse Hawkins also regarded the pterodactyl as the original dragon of legends such as that of Saint George (see e.g., Anon (1858), p. 112; Anon (1869), p. 147; Waterhouse Hawkins (1880), p. 24; see also e.g., Bramwell (2008), p. 29; Davidson (2008), p. 76; Desmond (1974), p. 66, Desmond (1975), p. 162; Fig. 12). Incidentally, Lasuén's opus is coincident with a revival of the dragon in Spain's largest neighboring country (Baratay, 1996). Indeed, during the second half of the nineteenth century, the dragon was often depicted in French Catholic shrines alone on a mosaic, a gargoyle, a column base or with its victor Saint Michael the Archangel, but also with Saint George, Saint Paul Aurelian, Saint Martha of Bethany, Saint Margaret the Virgin, and others. This was in part due to palaeontological discoveries such as that of the *Pterodactylus*, which assured the legitimacy of the belief in the dragon, as well illustrated by the prothonotary apostolic J.-J. Gaume (1864) (pp. 187–191).

#### 4. Conclusion

The bas-relief representing a pterosaur that is located on a façade of the former main building of the Faculties of Medicine and Sciences in Saragossa is possibly a realisation of Lasuén of a suggestion by Gimeno, based on a drawing made more than half a century earlier in France by Susemihl. The curious selection of such an animal as a symbol of zoology is most likely not anodyne and may originate from its semblance with the dragon, which is especially evocative in Aragon.

Although little known, this product of Lasuén's artistry deserves consideration because it appears to be the only stone carving representing a pterosaur incorporated into building architecture in the nineteenth century. Its realization in a provincial town where research activity in palaeontology was insignificant and, moreover, in a country where the traditional study of the discipline was considerably biased in favor of its stratigraphical application (Sequeiros San Román, 1989) is also worth highlighting. In a way, it is close to the origin of an intermittent practice of evoking pterosaurs in artworks destined for facilities in which zoology plays an essential role. The culmination of such a custom might be the dramatic 1960 bronze of M. Fredericks known as "Flying Pterodactyls" (actually two *Rhamphorhynchus*-like pterosaurs) that stands at the Detroit Zoo, Royal Oak ([Anon, 2003], figs. 240–241, pl. 26).

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