

The National College of Art and Design, Department of Fine Art, Sculpture.

A LIMITED TRIUMPH,

Fantasy and structural innovation in the work of Antoní Gaudí.

by Éanna O Broin.

Submitted to the Faculty of History of Art and Complementary Studies in Candidacy for the Degree of Bachelor of Fine Art (Sculpture), 1992. and the set of the second share of the second se

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INTRODUCTION

Gaudi's buildings are immediately impressive, and the subject of much controversy. As my interest in his work has grown I have found some aspects are clearly and easily explained and accepted. These would include the initial influence of Viollet-le-Duc's guidelines for revivalist buildings, and the catalogues of his life and work. These can be treated with infinite depth and sublety, but they will not be my central theme here. There are four topics that, for me, were not so easily resolved and it is to these that this essay will be directed.

The first chapter will outline the dynamic situation of Barcelona in the last quarter of the ninteenth century. This has been gleaned from books, noteably those of Brenan, Fernandez-Armesto, León and Tóibín.

The second topic is that of Gaudi's much acclaimed fantasy and imagination. There is initial delight in these eccentric buildings, but if viewed together it emerges that Gaudi played on a central and very limited theme of fantasy, that of the dragon/serpent. This very limitation is revealing, especially as it developed in his later works, and is ,I think, a clue to the elusive character of the man.

Chapter three has two related aspects to it. To remember that Gaudí was not alone in creating 'his' work and to look at the often submerged achievements of his Burnsline Burnsline and Theat a sets and and sets to the the and the test and a controlocies. As all a the left of the control present the test accession some somethic area for all and the test exclusions and a represent to a set of a set of the test hat burnsline and the same based with the control of build be and the same based and the control of the test can be the base and the same based of the test of the same of the any set of the same based of the test and the base and the same based of the test of the test and the test of the test base of the test of the test of the test of the test base of the test of the test of the test of the test base of the test of the test and the test of the test based to the test of the test and the test of the test based to the test of the test of the time server and the test of test of the test of the same test of the test of test of the test of the test of the time server of the angle of the test of the test of the test of the time server of the angle of test of the test of the test of the test of the time server of the angle of test of test of the test of the test of t

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remembor the sands way with the interview ¹Ha. In it for hear of the within the systematic the second to structural themes. These were also quite limited in number but were pursued to the threshold of discoveries that could have offered a significent impetus to the twentieth century had they not been largely confounded by both Gaudí and his building methods.

Last, I want to look at his most puzzling masterpiece, the Sagrada Familia, and to evaluate not the detail but the general thrust and evolution of his response to the project. It seems to me that he did an amazing thing, he managed to reinvest the reactionary dreams of a young man with the resolve of the same man over thirty years later. In the final model that emerged I now see not a confusion but an exceptional portrayal of Gaudi's spirit and justification of his methodology. In response to the question of it being an anachronism I argue that it is not out of place in this century. To the argument over its future I take the line that it can only be continued if it is changed. Its method was always one of evolvement and without that it will become an impotent monument to the past.

Before coming to these topics I looked at his work in situ, worked on the site of the Sagrada Familia, and read as indicated in the bibliography. It has been a personal approach and argumentum ad vircundium has been consciously reduced with a view to addressing directly the chosen points of interest. enters and Alune Alune a conservation of the conservation of the second of the second of the second of the second estimated estimated of the second estimated estimate

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 Gaudi and visitors to the site of the sagrada familia. Rf.(15,p.25).



THE SETTING

In this chapter I intend to sketch the milieu within which Gaudi was to function.

Economic boom.

Barcelona was in the last quarter of the nineteenth century on the crest of a wave. The industrialists had prospered and, now largely second generation , they were relatively secure. This economic boom was based on the success of their cotton, wine and steel industries. By 1840 Catalunya had become the fourth largest producer of cotton cloth in the world¹(28, p.48). The wine and cork industries had also grown very strong, partly because of the phylloxera pest that had devastated the vinyards of France²(28, p.48). With the spread of railways the Catalunyan steel industry had also prospered.In short, there was substantial economic power in the city.

Nationalism.

This economic growth had developed, as in other european countries, parallel in time with the development of ideals of romantic Nationalism. In Spain as a whole the nineteenth century had its share of unrest and bloodshed. These wars were not without reference to Nationalism but the Madrid government managed to hold power throughout and to remain Monarchist. The defeat of France in the vicious Penninsular campaign, graphically depicted in Goya's for the a chapter of fotone the ender the moleculation and the vision taken was to forethem.

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Into economic growin had developed, all is ether european conditions, parallel in time with the developent of ideals of romantic Artionalism. In Spritt 4- a mean to nimeteenth contury had its shore of numeric and blackhold These wars were not without reference to validation black Modrid poverment admated to held novel "terminiant of the communication that the late of the structure communication of the second of the structure is a structure to held novel "terminiant of the communication of the second of the structure communication of the second of the structure is a structure when the structure etchings, seemed to have dealt effectively with Republicanism for the time being, and Spain escaped the tumult of 1848, the year of the revolutions across Europe.

Still, the ideas of nationalism were in the air and Catalunya was suscieptible to such a self-image. Catalunya comprises the four Spanish provinces of Gerona, Lérida, Barcelona and Tarragona. But Catalan Nationalists would claim a 'Greater Catalunya', based on the use of the catalan language, and would include Castellon, Valencia, Alicante, the Balearic Islands, Andorra and those parts of southern France known as Roussillon and the Cerdagne. It became confident enough to tentatively identify itself as a Nation, encouraged by dreams of past and future glory.

Catalunya had in the fifteenth century been a strong trading power, under the protection of Charlemange and his successors. In 1423 it had ruled Sicily, Athens, Thebes, Corsica, Sardinia and Naples. This was an artificial high point as bank collapses in Barcelona in 1381 had already undermined the economy. By 1440 it had lost most of its dominions. But this was enough in hindsight to be seen with Romantic and self-interested eyes as a Golden Age.This ancient Catalunya was, of course, seen as superior to Spain and, in its wilder fancies, as the 'natural' ruler of the Mediterranean.

Renaixenca.

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Catalunca was suscreptiale to such a self-leage, not now open open and to car downial provinces of Geronal contractor decomprises the four downial provinces of Geronal contractor decomposition and Tarrageno. But Catalor National Links would catalor a based on the case of the contractor decomposition a "Theorem of the catalor is the case of the contractor decomposition of the down of the contractor and the Geronal Incomposition of the contractor of something contractor decomposition and the Geronal Incomposition of the contractor decomposition and the Geronal Incomposition of the contractor of something contractor of something contractor of pasting.

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The belief in their Golden Age took root, amplified itself and became The Renaixenca.In essence it was not much different to our Gaelic Revival.It had its literary, philosophical, musical, political and artistic aspects.

The literary revival was underway by 1840. Leaning on the Spanish Romantic Movement, epitomised by Cervantes, it differentiated itself with borrowings from the current German, French and English Romantic Movements, and by its use of a rediscovered Catalan language³. Reading some of these writings now leaves me as cold as reading Wordsworth. They seem contrived and adolescent. But they did answer a need of the time and broke the ground sufficiently to goad the second generation, notably Lorca, on to a greater achievement.

Painting followed having also to travel the route of borrowing before it found its own voice. Initially it fed off the English Aesthetes, the French Symbolists and the various Catalan and South American literary movements. The central influence was French, Fortuny [2] following Delacroix with Moorish and exotic scenes, while Rusiñol introduced Impresssionism. The vogue for cafe discussion honed their ideas and set the ground for the later emergence of Picasso, Dalí and Miró.

The musical scene was almost overcome by outside influences, particularly Beethoven and Wagner. This produced a counterpoint and a following of French trends, given a interesting twist by Rusinol's friendship with Erik Satie,⁴ (c) the other and the first of a case of the characteristic and the second of the s

Painting to towed having area to travel the roote of hearowing before it found its awa solved includin it hed off the English Austhores the french Symbol of a coll are various Caralin and South American (Hisrary moves pitel in rentred influence was stored and to formary (2) testion is belactory with "apprish and and the sounds, and the fit introduced inter serventees for the sounds, and the fit antroduced inter serventees for the sounds, and the sound near of the rights and set the sounds, and the sounds, and of freeses, toff and fitted.

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2.	Mariano Fortuny(1838-1874)	and	his	Battle	of	Tetouan.	-
	Rf.(24,pp.224-225).						

- 3. Ramon Lull, Rf.(24,p.222).
- 4. Gaudi's pass to The Great Exhibition, 1888, Rf.(24.224).


no doubt an influence on Dalí's later journey into surrealism. The main local musical innovation was the redefinition in 1850 of the Sardana, a graceful, slow and subtle medieval dance that now became adopted as the National Dance.

The philosophical aspect was also a bricolage of borrowings and myths. They found a native philosopher Ramón Lull [3]. He was born in Majorca, known as the Illuminated Doctor, and preached an empirical and by implication an agnostic message for which he was stoned to death in 1315 at Bougie, Algeria. It was a start. The connection with Greece could also be seen with rose-tinted spectacles. 'From here we governed Athens'⁶declared Jordi Pujol as late as 1988 (28, p.24). But most of the philosophical content was contemporary nineteenth century fare with a particular preference for Nietzsche. This last offered the very potent argument of the inalienable right, even duty of a national people to seek by whatever means to fulfill their Destiny as an independent people. Given the history of Castilian domination through Madrid and the Catalan redefinition of itself, this was to be a most dangerous creed.

Disunity.

There is however an important mitigating factor. Catalunya was not a unified front. It was a divided society and it is one of the central themes of this era that the factions within the region distrusted, misunderstood and a demagnine den Conserve am Develo i sakon on person and er condication from more in revelored conservation and conservation - end folition for holds on the Gradause of conservation subtle medies is paired that can be entered as fine Automaal persons

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There is commer an important critical for having a catalenter to a solffed mont. St was a fixing claim and is is one a the contract these at the era the for settass with a the region dist attract wischer form of frustrated each others potential power to influence their situation. The main factions were Bourgeois and Worker, with the Church staunchly on the Bourgeois side. The Bourgeois were also the Nationalists, the leaders of their Renaixenca and they could not understand why the ungrateful Workers wanted to destroy their dream, their new order. This was of course an order that would recognise them as their natural leaders. Their frustration was further confused by the changing composition of the opposing work force. The work generated by the resurgence in Barcelona attracted the unemployed from all over Spain. Thus many of the workers were simply not Catalan⁷(11, p.53). These would go along with the economic boom but felt little loyalty to the middle class Renaixenca or to its Nationalistic pretentions.

The Workers point of view was different to that of the Bourgeoisie and was being generated from different sources. Their self-definition was more sympathetic to Marxism than to Nationalism. Although there was work available wages were very low and there was great misery and poverty in Barcelona ⁹ (11, p.86). Colm Toibin commented that:

'The Catalans who wanted imagination and innovation in their buildings and in their politics remained stubborn employers'. (28, p.57).

Anarchism.

Whatever chance the Renaixenca had of winning over the Workers it was seriously diminished when in October 1868 trustrict and there court a pression influence to influsive discription with the task of the advances of the flatter cours the flucture scattering on the datarreets and of the flatter cours are also the Mational triat datarreets and of the flatter course and they would not understand with the magnitude to the work of wanted to destroy their dreams there are ender to be with escourse an order that could range them as the course by the course an order that could range them as the course tenders. Their frustration was further coursed by the damping composition of the opposing out the ender. The second damping the frustration was further coursed by the second damping in the resurgance of Batescond Attrict of work simply, not feature the time many filt, which ender with the increase of the total fifther and the ender with the increase of the total fifther and the ender.

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Giuseppe Fanelli visited Barcelona. He was an anarchist of the Bakunin persuasion. Gerald Brenan describes this turning point as follows:

' Spaniards had long been waiting for this moment...Within the space of less than three months, without knowing a word of Spanish or meeting more than an occasional Spaniard who understood his French or Italian, he had launched a movement that was to endure, with wave-like advances and recessions, for the next seventy years and to profoundly affect the destinies of Spain'. (4, p.238).

Anarchism took hold in Barcelona.It was to be a bitter and bloody division. From 1891 it became known as the City of the Bombs, and the era as Los anos del Pistolerismo.One culmination of tension happened in July 1909, the Setmana Tragica, when 22 churches and 34 convents were sacked and burned. 'Enter and sack the decadent civilisation of this unhappy country! Destroy its temples, finish off its gods, raise the skirts of its novices and elevate them to the status of mothers!' (28, p.61) was the admonition of the Radical leader Lerroux. The reprisals were equally bloody. There were strikes, assassinations, coups and eventually the Spanish Civil War. From September 1932 to January 1939 Catalunya declared itself an independent republic, and for three years during the Civil War it was an anarchist free state (also at this time the Sagrada Familia was torched, the drawings, models and statues destroyed and both

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Bocabella's and Gaudi's graves upset. It may be noted that only the rich could buy burial there, an idea aimed at raising funds to continue the work). It was Franco who eventually settled the issue in favour of the Church and of the by then decidedly less Nationalist industrialists. A quarter of a million people fled to France. But this is too far ahead, let us return to the mid-nineteenth century.

L'Eixample.

From 1850 to 1880 the population of Barcelona doubled.¹¹ (28, p.48). The old city could not contain them. A new area, L'Eixample (The Extension) was planned.¹² From the start this was envisioned as a development for the wealthy entrepreneurial class. They wanted their dwellings to reflect their wealth and status. The buildings were to be appropriate to the New Age, both opulent and modern. An edge of rivalry was noticed amongst both the clients and the architects from the beginning. The challange and the rewards were clear. The architects' response was later to be dubbed Modernismo.

Modernismo.

In the early 1880's Lluis Domenech i Montaner [9-11] led the way. He found that he had to borrow heavily and this he did from various sources.

Medievalism, or Neo-Gothic gave the fairytale Golden Age feel. Barcelona had a Catalan Gothic period in the late Spreaserie's and earlies arrives areas of the last leaves of the second second

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^{5/6.} Modernismo house details,1900, Rf.(3,p.161).

- 7. Madrid Bull Ring Mudéjar Design, 1842, Rf.(31.p22).
- 8. Puig i Cadafalch's Casa Amattlér, Rf.(31,p23).



fourteenth century. It was not a style of medieval splendour, pagentry or of soaring pinnacles. Rather it has more in common with the Portuguese Gothic style (although, I think, it lacks that lyrical restraint of the Portuguese sense of proportion and mass). It is a direct solid unadorned style the most notable feature of which is probably its treatment of arches. These are best seen today in the facade of Santa Maria del Pi, near the Rambla; in the Sala Tinell, Placa del Rei and in the Consell de Cent of the Placa Sant Jaume. It did not easily adapt itself to the nineteenth century and the Neo-Gothic that emerged had more to do with the revivalisms of Ruskin and of Viollet-le-Duc, particularly of the latter.

An exoticism and slight anti-Spanish swagger were added by invoking Neo-Moorish elements. This was not just a Catalan style but had recieved a certain popularity since its use in the Madrid bullring of 1842¹³[7]. The arabic or Moorish architecture particular to Spain is called Mudéjar and this revival became Neo-Mudéjar.

The English Arts and Crafts Movement and Parisian early Art Nouveau [5] were copied to give the suitable height-offashion appeal. And there was also, especially in Domenech i Montaner's own work, some elements of the more stolid German and Austrian styles of the time. This last had its parallel in the musical tastes of the Barcelona Bourgeoisie who were at the time wildly enamoured of Wagner. Copies of his (astronum device numbers of the construction of another and endine device rate of endinous and parameters, and her in the mare in censor with the Persiverese Entries of the Phenegas interfect it cards than induced instructed at the Phenegase sense of preparties and massis it is a matrix on the distruction of a massis if is a matrix on the distruction of the massis if is a matrix on the distruction of the massis in the analysis of the distruction of the massis in the analysis of the distruction of the massis in the analysis of the distruction of the massis in the tentors of and the probably its treatment of multiple (bases are not) in the sense the treatment of multiple in the leavent of the state limits (bases in the tentors) in the theorem is an indice in the leavent of the state limits (bases in the tentor) in the theorem is an indice in the leavent of the state limits (bases in the leavent of the theorem is the the leavent of the theory and the sense of the theory and the sense of the theory and the theory of the theory and the leavent of the theory of the leavent of the theory and the sense of the theory of the leavent of the theory and the sense of the sense of the theory and the sense of the theory and the sense of the sense of the theory and the sense of the sense of the tentor.

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- 9. Lluis Domenech i Montaner, Rf.(3,p.159).
 10. Palau de la Música (Interior), Ricard Pla Boada, 1990.
 11. Palau de la Música (Facade), author, 1991.
- 12. Casa l'Ardiaca (Detail), Barc.card,1991.



incomplete scores were rushed to Barcelona and performed as work in progress recitals.

These then were the main elements from which the new style was to be forged. The local contribution was in the excellence of their brick, wrought iron, majolica and glass work, and in the ingenuity of their designers.

Domenech i Montaner's early buildings are, for me a bit disappointing on the outside but had sumptious interiors. In this respect I would include his Carrer d'Aragó 255, and the Casa Lleó on the Passeig de Grácia, a few doors up from Gaudi's Casa Battló. He could also be quite severe in his designs, such as in his Hospital de la Santa Creu i Sant Pau (in which Gaudi was to die). His masterpiece is probably the interior of the Palau de la Música [10,11], complete with Valkyries, of 1905, twenty five years after his pioneering work on the new style. Domenech i Montaner involved himself in polemic, in architectural education and in politics from the start. In each he was enormously influential. He set a terrific pace and commanded an interest in building.

Later, his pupil and follower Puig i Cadafalch [8] would sum up those heady years of Modernisme in Barcelona. He is worth quoting at length as he catches their spirit well:

'Thus in urgency and in haste, architectural education was improvised. Even quicker was the formation of the various groups, with their own masters and pupils, each one developing its own point of view , meno sulle: ser one sull'un most un bur a prominent de les met pour one en entre construction de les entre const

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"mak in urgenes and in method multiple terms of end with hammanished from and the sound behaved to current right with the being and methods and beauties of the development it with methods to the s forming its own style. Some attempted the impossible task of reviving Romanesque architecture, others imported the French Neo-Gothicism of Viollet-le-Duc, others still searching for a modern style in Germany, Austria or France, or trying to achieve architectural rationalism by expressing the nature of the materials and the structural logic. In all this, perhaps the most positive thing we have done is to create a modern art based on our own traditional forms, embellishing them with the beautiful properties of new materials, finding solutions to todays problems through the spirit of nationalism. We have injected into it something of the decorative exuberance of our medieval tradition, charged it with an almost Moorish flavour and a certain vaguely oriental quality. It has been a collective labour by indepentent visionaries and their more conservative predecessors alike - a work of masters and disciples. All this has been helped along by a literary, social and historical Renaissance ... This art which, without realising it we have been creating, has been more clearly understood by foreigners . . . than by ourselves.' 4

The Great Exhibition.

All of this was given a great boost by the decision in Barcelona to hold a Great Exhibition in 1888. This was to

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titi en ittés weis provin a zeres inter et le tenne a en endur su kometensis intés a sereni transfor transfor transfor seres and rival those of Paris, London and Chicago. Barcelona was to declare itself to the world. It galvanised the city. Building was again to the fore, especially that of Domenech i Montaner. His semi-floating Hotel caught the popular imagination, partly by its size and its rapid construction (it was prefabricated and erected in 61 days) but particularly as it was to be torn down immediately after the Exhibition. The whole venture was a great success both for architects and industrialists, although it must be noted that Gaudi was not of the main architectural clique and was only slightly involved ¹⁵[4].

The setting.

This then was Gaudi's setting. It was one of many political and social factions. His faction was that of the Church and of the Industrialists,[1]. This was by implication to support the Nationalists and the newly formed aristocracy. It also meant an alliance with Patronage [14]. These were the people with the necessary money and inclination to indulge Gaudi's methodology. He did not have the temperment for public works that were limited by budgets and deadlines. He was extremely lucky in his patrons, although it is significent that Guell only gave him the Parc Guell project after Domenech i Montaner had refused it. These people were also self-important, right wing and High Church. In 1887 they set up the Lliga de Catalunya, a 1. Valuation 1. Conject remains 200 for an observation and a first the second state of the factor factor factor for the second of the secon

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Whatever the qualities or the detailed trends, the fundamental point is that Gaudí reached maturity when Barcelona Society was on the move, willing to risk new designs and to pay for them. -45" "Ju El Entruction" Co El Indonesi, acado laporto 67" (60b) efficientidade.

bhailever 'En qualities m)he denoted is iden the (containental point is finit hand) reached outsilly whole hardelong Society was on the movey withing to trac with opsigns and to pay for them.



13. Gaudí, aged 26, 1878 (Graduation Year), Rf.(31,p.2).
 14. Count Eusebi Guell, 1890's, Rf.(6,pl.xxiv).



Reference Notes.

- 1. After England, France and United States. (25,p.48).
- 2. Enabling the price of a barrel of exported wine to be doubled . (25,p.48).
- 3. The first fragment of Catalan literature, the Homilies d'Organya, was written about 1180 AD. The Consultat del Mar, one of the first book of laws of the sea was also originally written in Catalan in the twelfth century.
- 4. Erik Satie (1866-1925) a lyrical French composer, who wrote music to such themes as plastic time, animated furniture and imaginary marine creatures with great wit and eccentricity. Rusinol painted an excellent portrait of him.
- 5. By an otherwise unknown musician called Ventura.
- 6. Spring 1988, (25,p.24).
- An estimated one third of the population of Barcelona was not born there in 1860, almost half at the turn of the century. (11,p.53).
- 8. Wages were only 64% of subsistence level in 1856, and were still only 66% of subsistence level by 1900. Rf. based on information (11,p.86).
- 9. It was considered a breakthrough when in 1900 the women's working day was reduced to 11 hours, in the first social legislation since 1873. (25, p.57).
- 10.See George Orwell's Homage to Catalonia, and Hugh Thomas' Spanish Civil War for further reading on the republic.
- 11.Barcelona's population: 1800 1850 1880 1900 (25,p.48). 115,000 175,000 346,000 533,000.
- 12. The Madrid version was rejected in favour of Idlefons Cerda's plans for the Eixample.
- 13.Designed by Rodriguez Ayuso and Alvarez Capra .
- 14.In L'oeuvre de Puig i Cadafalch, Architecte, Barcelona, 1904.
- 15.He designed a stand for the Exhibition Hall of which no graphic evidence remains. This exclusion from the clique will be returned to in Chapter 4.

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15. Gaudí, aged 36, 1888, Rf.(2, p.73).

16. Dragon Gate of the Finca Guell, Rf.(15, p.53).

17. Gaudi's studio with models of gargoyles in the roof space. Rf.(23, p.97).



AN ARCHITECTURE OF FANTASY

'Every work of art must be seductive; therein lies its universality, for it attracts everyone, both experts and laymen'. A.Gaudí (21, p.130).

Most writers agree that Gaudi's work is imaginative, even fantastic. In this chapter I will review his nonreligious buildings from this point of view.

The early style (1878 - 1888).

Gaudi's earlier work is concerned with making an impression. He is well aware of the Spanish identification 'tiene imaginación'.¹ To lack this is to be career dead. It is more specific than our word 'talent' and indicates a 'vision', a sensibility and touch of the 'who but an artist would have thought of that' wonderment.

From the outset [13] he sought for effect with colour, pattern and style. Lara Masini wrote of him:

'Gaudi's early works display a worldly and to some extent publicity-seeking attitude which is in line with his use of ostentatious formulae designed to flatter the intellectually snobbish tastes of the intelligensia of Barcelona ...' (15, p.16).

This tendency can be seen in the Casa Vicens (1883 -1888), Casa el Capricho in Comillas (1883 - 1885), The Guell Pavilions (1884 - 1887) and in the main building of the talan (E. M.C.M. at 20 A

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18.	Casa	Vicens,	Exterior. Rf.(31, p.37).
19.	Casa	Vicens,	Trompe l'oeil ceiling. Rf.(31, p.44).
20.	Casa	Vicens,	Corner of smoking room, Rf.(6,pl.xxvi).
21.	Casa	Vicens,	Ceiling qouin detail, Barc.card,1991.

18.



Palau Guell (1886 - 1889). I also believe it is a large element in the initial designs for the Sagrada Familia (1883 - 1926..). In short, I would tend to agree with Rainer Zerbst (31, p.26) in identifying the decade 1878 to 1888 as a distinct phase in Gaudi's work. Casanelles (6, p.42) would also choose 1888 as a significant point of change for Gaudí.

This body of work is Neo-Mudéjar in character. This is not surprising as Moorish architecture was by far the most stimulating style in Spain and it was also, as has been mentioned, acceptable politically as a base of Modernista design. Wiedermann (30, p.37) goes to some length to raise the question that Gaudí may be taking his leitmotifs directly from Persian examples. This is possible, but I would think of it as a backup to the more immediate Mudéjar stimulus.

The Casa Vicens.

Gaudi's debut, the Casa Vicens (1883 - 1888) is quite daring and impressive. On the outside it is colourful and declamatory [18]. The decorative tower/chimney feature is already present and functions to lift the emphasis from the rather crude bottom half of the house to the much more sucessful top storey. Equally the decoration is weak lower down and gains strength higher up when it seems to follow the structural elements. I say 'seems' because it doesn't really work, it still looks like applique and pastiche. The interior could kindly be referred to as an apprentice piece (a) Construction of the construction of the second seco

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Saudi's debat, the task treest [156. [1008] [1., 156 daring and immessive. On the outside if [2. elgentif and declamatory [1.]. The decorative inset/or most transforms is already present and functions to the transform model mater rather crude bottom half or the ranse to any puch mater stressifi for itares, squally insufer ranse to any puch mater down and gains screngib blych on up with it estated in to the the structure (the functions) is as a formation the structure (the function of the ranse) is done to be structure (the function of the function coolly works if it is any back file of the function of the formation the structure (the full blocks file of the function) and constitution of the full of the full blocks file of the function of the formation coolly works if it is full to the reference of the formation of the structure (the full blocks file of the function) and constitution (for the structure of the full books file of the function of the formation coolly works in the full books file of the function of the file of the structure of the full books file of the function of the formation of the structure of the full books file of the function of the function of the structure of the state of the function of



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22. El Capricho, author, 1991. 23. Bellesguard, Section, Rf.(31, p.133). 24. Bellesguard, Interior, Rf.(31, p.131).


[19-21]. It feels like a stage set worked on by a dozen rival artisans. Isolated features are memorable and accomplished but the ambience is overwrought.

El Capricho.

El Capricho (1883 - 1885) can equally be put down to experience [22]. Gaudi never visited the site and it shows. Again there are some notable features: The three sided portico, here a crude attempt, later to be revised in the portico of the Bishop's Palace in Astorga; the downright visually offensive tower and the rather nicely laid lozenge roof. The interior has good workmanship but is otherwise unremarkable.

The Pavilions Guell.

The Pavilions Guell (1884 - 1887) show much more restraint and control. The gate filial is overdone but otherwise the planning is clear and confident. He has discovered the parabolic brick corbelled arch that was to become so much his signature. The colour balance and the use of decorative wall surface is also surer. Here notice the indented honeycomb pattern [27] and the decal tiles on the wall [27] of the riding hall, a motif that can be seen later in the coloured discs of the Parc Guell and the Casa Battló. The interior is well modulated, especially in the stables, where both the central copula and the barrel vaults define elegant and effective spaces [26]. This is all Mudejar (i) and in problem of a constraint of a phone and in a decision climation approximation (constraint) and as a set of the decay part of the management of a statement of a constraint of the statement of the st

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25.	Pavilions	Guell,	Gate lodge, author, 1991.
26.	Pavilions p.61).	Guell,	Section of Riding Stables, Rf.(31,
27.	Pavilions	Guell,	Details, Rf.(31, p.63).

25.





29.

Finca Miralles, Boundry wall, author 1991.
Pavilions Guell, Dragon Gate, Barc.card,1991.

28.



pastiche [25]. It is well handled and this is possibly what gave him the confidence to make the gate.

Enter the dragon theme.

Until now his characteristic imagination was one of ingenuity, daring in the introduction of colour and pattern, and innovative in making a feature of a tower or chimney. But this gate is something new, it has an element of fantasy. It is a superb wrought iron dragon gate, distinctly Art Nouveau in its use of line [16,29]. The dragon is a childs nightmare, emaciated, ready to spring, mouth opened and vicious. It is winged but its tail seems to suggest the sea rather than the sky. As you open the gate the claw rises towards you. Gaudi spent much time in the workshop overseeing this gate and it is the first clear statement of what was to become one of his most consistent and revealing themes: that of the serpent/dragon. It may be just a whim, a virtuoso tour de force, but I doubt it. It could be a dragon for St.George, patron of Barcelona. Possibly. Is it a reference to the myth of the Hesperides²? More likely, but, whichever it is, it has been felt and designed with a new intensity.

The Palau Guell.

His next work, the Palau Guell (1886 - 1889) was to make his reputation. It is basically an English-style baronial medieval lodge. The Moorish overtones are still n persona de la maria de la conta de la calanza Maria. En la calanza estante se entre deserva de la calanza de la maria da del de la defensa de la contra d

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30.	Palau	Guell,	View	of	facade	, author	,1991.
31.	Palua	Guell,	View	of	Facade	, author	,1991
32.	Palau	Guell,	Inter	rio	r,1910,	Rf.(24,	p.227).





33/35. Palau Guell, Great Hall, Rf.(31, pp.78-81).



there in the suggested canopy, in the gateway to the terrace, and especially in the dome over the main hall [32-35], but they are well integrated and dominated by a much more competent Gaudi. Also the feature element of the twin parabolic arch gateways is not overstated [30,31]. This may have something to do with the arrival of Francesc Berenguer to Gaudi's office. It was Berenguer who did sixteen drafts of the facade before the final design resolved itself. He is also credited with a perfectionist vigour that got the best out of Gaudí. The parabaloid arches are used throughout, not always successfully as their uneasy blending with the vertical was to be a continuing problem. Overall the building went well, and despite the exorbitant cost, it was aclaimed. So, when it came to the roof Gaudí indulged himself.

Roof of the Palau Guell.

Here we have the feeling of a place apart in which something different is going on [39]. It does not relate to the rest of the building in any stylistic or logical way. The sixteen chimneys seem to be harmless exercises based on the cone and the previous feature chimney-top designs. But it is not as straightforward as that. Here there is a presence lacking in the professional solution of the rest of the building. For a start there is the sinister and out of key sorcerer's hat spire. That this is a malevolent thing is clear from the colour, the spiked mace, the flayed bat and

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Here we have the fulling of a price applet in plates something different as going on 2000 an deemonth of 100000 the restant of the billing of any monostic of function and the entitient contains seen to be to not concentrate basis of the come and the provious feature entererstics devices the if is not as strenghttermored as just, benching devices the presence factors in the billing of all vice inclusions of the variation in the billing billing of all vice inclusions of the variation in the billing billing of all vice inclusions of the variation is the billing billing of all vice inclusions of the variation is the billing billing of all vice inclusions of the variation is the billing of the billing of all vice inclusions of the variation is the transmitted of all the variations in the transmitted of all the variations in the transmitted of all the variations of the control of the billing is



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36/37. Colonia Guell, Sketches, Rf.(6, pl.lxxxi/lxxxii). 38. Colonia Guell, Original sketch, Rf.(31, p.109).





39. Palau Guell, Roof , Rf.(15, p.63).40. Palau Guell, Detail, Barc.card.1991.





41. Palau Guell, Pinnacle of Roof Spire, Rf.(15, p.64).



the torn tambourine [41]. It seems s/he has turned the other figures to stone. Another odd element is the pinnacle over the centre of the facade [40]. Is it a swallows nest, a surreal abstraction, a Freudian emblem of impotence or just a decorative finish?

The imagination seems to be of fairytale or legend. The central figure is malevolent and, I think, female in that he later developed the openings into the lagrimal shaped windows of the crypt of the Colonia Guell [129,130] and the entire hat is used both in his house in Parc Guell and adapted into the tower of the Virgin of the Sagrada Familia. I think it a clue to a deeply frustrated, approval seeking, woman fearing psyche. It is a mimesis, he is fearing fictions. It is the imagination of a danger never experienced. Is it a joke or a Kantian irony? There is nothing in any accounts I have come across of the man to suggest such wit. In fact his reported attempts at humour are leaden 3.

The dragon returns.

The dragon emerges again and again. In fact, excepting the Sagrada Familia, it became central to Gaudi's theme of fantasy. It can be seen in his use of the serpentine curve, spectacularly so in the walls of the Finca Miralles [28] and possibly also in the roller-coaster of the Colonia Guell Chapel (the drawings are not specific enough) [36-38]. Although never completed, the counterpoint of the She come to an encountrial that a chieve apple for the main called an exercisity of the off character as a shearers to be much tark beam edde and calls. If the off character as a start calls the transmit canade calls of a an extension a exercise calls the transformation endries and transform the company of a deconstruct of offend.

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It can be argued both ways. The serpent was widely current at the time as a sexual image, both in art and in religion. Perhaps it is just the St.George legend that Gaudi was to use later on? I think it became more personal than that. Could it be an orientalism? Zerbst has pointed out that:

'In 1871 the Academy of Architecture in Barcelona purchased a number of photographs of oriental buildings. These fascinated the students and aquainted Gaudi...with Oriental Architecture...in its pure form.' (31, p.21).

The dragons could have been from there. It is probable that they included a photograph of the famous Dragon Staircase of Chang Mai. He had also come into contact with illustrations of the architecture of Meso-America, in which the theme of Quetzalquat1, or Coatlique, the Plumed Serpent is common. But the quality and feel of Gaudi's serpent is different to either of these. It does not have the positive strength of the Chinese (30) nor the monumentality of Meso-American (8) versions.

There is one last external possibility. The serpents were an offshoot of Wagnerism: a sea creature, a genuine northern saga type, a Grendel's Mother⁴ of a mottled monster. It is generally accepted that St.George was a mythical (a) serve and card char the constraint ones ones to be a statemental to a server of the server of

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42. Casa Botines, Facade, Leon, Rf. (31, p.217).43. Casa Calvet, Facade, Rf. (31, p.101).



survival of such sagas (which is why he's an ex-saint these days). Also the English form of medievalism was popular in Barcelona, notably with Guell, to whose library Gaudi had access.

Whatever his source Gaudí did find both popularity and satisfaction in the theme of the serpent/dragon/sea monster and would return to it in his later buildings.

The middle period (1888 - 1900).

For the next twenty years Gaudí [15] was preoccupied with the Sagrada Familia project, which will be discussed later. He undertook other work, noteably the Bishop's Palace in Astorga [148,149], the Colegio Teresiana [90-94], and the Casas Botines [42] and Calvet [43]. These are competent solid workmanlike buildings. The Bishops Palace has a Rheinish fairytale castle aspect, and the Colegio shows further use of the parabolic arch, but otherwise they are not exceptional. It may be that the cathedral was leaving him little extra enthuasiasm. Martinell indicates as much. Still soon after the turn of the century he regained his energies and produced his best work.

The later period (1900 - 1914).

He returned to the serpentine theme. He used it on the gate lodges [44-46] and in the justly famous bench [47-49] of the Parc Guell. But here it is almost a celebration. This change of mood is due largely to Jujol's colourful and an even to a secon sources (source) to only see a serie sea of our a derestic site outer a contrady assault? An objected entered and even to outfoor a fo barren man of extern an antical contrady of a contrady of the contrady outer at a

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47/49. Parc Guell, Serpentine Bench, Barc.card.1991.





50/54. Parc Guell, Details of bench, author,1991.



inspired broken tile work [50-54] that leaves little room for a sinister interpretation. Jujol's work is brilliant and may have been an influence on the collage aspect of cubism. Certainly Picasso was not unaware of it. The gate lodges have the dodecahedral fungal shaped crowns [46] but these and their encircling dragon pediments are subjugated by both the exuberance of the tile work and the taller cruciformtopped spire [44]. It also seems that Gaudí was at this time undergoing a revival of his energies. The Sagrada Familia was resolving itself at last.

Then, encouraged and confident of the counterbalance of Jujol, he undertook his most narrative monster story yet, the Casa Battlo.

The Casa Battló.

The house was already there⁵. What was wanted were alterations, a new facade and reconditioning of the owners apartments on the first floor. The rest was to stay as it had been, in sublet apartments. The other point to bear in mind was that Gaudi was under immense pressure to perform. This was the Passeig de Grácia and arguably the most prestigious site in the city, with Puig i Cadafalch's Casa Amattlér [8] on one side and Domenech i Montaner's Casa Lleó three doors up on the other⁶. Gaudi's talent, his 'imaginación ' was on trial. He rose to the occasion with his favourite, not to say only theme of fantasy, that of the sea serpent/dragon. An applied on a fille wort (40-24) whit proceeds if mean too a shiften on other that a dependence work is beneficient and build have been up of dependent that such a dependent of an and beneficial. Proceeds was and another with the spectral of an applition of the following was and another with the spectral of an and the following strates are polytowing and (1). The trees of the redevolution of the file work and the faller tendence in the boot apped spice of the file work and the faller tendence in the and encoded a new or state of the file of the faller tendence to and the redevolution of the second the faller tendence and an an an array of the second that the faller tendence and an and the second of the second tendence of the and are second of the tendence.

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55/57. Casa Battló, Facade, author,1991. 58. Félix Battló, Rf.(24, p.243).





59. Casa Battló, Roof, Barc.card.1991. 60. Casa Battló, Tower Detail, Rf.(31, p.174). 61. Casa Battló, Gaudi's Sketch, Rf.(31, p.164). 62. Casa Battló, Roof at night, Barc.card.1991.





63.

63. Casa Battló, Staircase, author,1991. 64. Casa Battló, Ceiling detail, Barc.card.1991. 65. Casa Battlo, Salon, 1926, Rf. (3, p.58). 66. Casa Battló, Salon, Barc.card.1991.



The salivating monster, its mouth propped with broken lances, shafted by the Christian tower through one of its eyes, sinks beneath the waves, bubbles rising, the whitened pelvic bones of its traditionally virginal victims displayed for all to see [55-57]. Even in the interior its backbone is to be seen as a staircase [63], and a sense of treasure trove is there in the 'jewelled' glasswork of the Salon [64-66].

Again the expression is so direct and Jujol's work so light that in the morning sun the building is fairytale and positive. Yet by mid-morning it is in the shade, and viewing it at night is to face a distinctly uneasy presence [62]. But it is not overdone, there is not, as in Palau Guell, a backwater or personal playground of Gaudi's deeper frustrations. It is possibly Gaudi's least troubled and simply sucessful collaboration. The same cannot be said of the Casa Milá.

The Casa Milá (1906 - 1910).

It was for Gaudí to be a homage to the Virgin of the Sea. It was also to be one of the largest apartment blocks of its time. The planning is extraordinary, indeed unique in its approach. Each floor and apartment is different [68], yet in section the building is structurally direct [69]. The entire building is treated as an enormous sculpture. In this Gaudí, to my mind, surpassed other architects of Modernisme. The decorative theme in his later buildings is not an (c) secure in our our contraction and a properties at a contract that can also the contractive file includes a contract the second of an element second also any an original of a contract of the melectre and a first the contract of the restance of a contract of the second of the contract of the file and the contract of the file of the restance of the file of the file and the second of the contract of the second of the contract of the file and the second of the contract of the second of the second of the second of the second of the file of the second of the second of the second of the second of the file of the second file of the second of the second of the second of the second file of the second of the second of the file of the second of the second file of the second of the second of the second of the second file of the second of the second of the file of the second of the second file of the second of the second of the second of the second file of the second of the second of the second of the file of the second file of the second file of the second file of the second file of the second of the second of the second of the file of the second of the second file of the second file of the second file of the second of th

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67. Casa Milá, Facade and detail, Rf.(7, p.65).68. Casa Milá, Matamala's sketch, Rf.(23, pp.166/167).





69/70. Casa Milá, Plans and section, Rf.(31, p.179). 71. Casa Milá, Ceiling Detail, Rf.(3, p.67). 72. Casa Milá, Facade, author,1991.

69.



The lozenge tiles and the wing over the staircase [77] confirm this. The roller-coaster paths, similar to those in the Parc Guell, echo it [78]. And the chimneys [80]? They resemble helmeted knights, but are they on-guard, petrified or sleeping? Arthurian legend ends with the knights comatose but pledged to awaken in the hour of need, later overwritten as the hour of Christian need, when they will become dragon slayers once again. The dragon was not literal but represented an evil aberration of the natural order of things. In this light Gaudi's roof becomes unmistakably a contemporary commentary. By now his asceticism and catholicism were well known. He could not but have been appalled at the dessecrations of 1909. He places the mask of tragedy in the wings overlooking the scene [79]. The six cruciform-topped elements, in previous buildings the triumphant towers, are taller but seem to be either equally petrified, (the two at the back), or enveloped in what could be read as a process of digestion. This is suggested not only by their shapes but by the use of a finish and colour identified with the encircling serpent. Is this a call to the knights, a justification of their militancy, or are they to be read as awoken? This is unclear. But what is clear is that Gaudi has, in my view, moved his fantasy into a new dimension.

gee next page

It has since been hailed as Surreal, but it has none of the abandon to the subconscious that gives Surrealism its lyrical quality. Gaudí is too introverted, closed and



73. Casa Milá, by night, Revista Salvat, Barc. 1991.74. Casa Milá, Facade detail, author, 1991.





75. Casa Milá, Aerial view, Barc.card.1991.
 76/77. Casa Milá, Courtyard, Barc.card.1991.



addition or applied to a conventional surface, it is an integral part of the arrangement of space. He was developing at this time, and particularly in the Crypt of the Colonia Guell, a new almost expressionist architectural style that seems to me to be a culmination of Baroque architectural theory, I think of Borromini, rather than that of Art Nouveau.

The facade [72-74] of Casa Milá is thematically the throw of suceeding waves. Much of the ornamentation was denied him. He wanted to Marianise it, with the entire Hail Holy Queen on the facade, one or two towers (there are differing sketches) [67,68] and a culminating statue of the Virgin and child with attendent Guardian Angels. A few Aves were cut on the stone but Milá, or his wife (she later redecorated her apartment in Louis XVI style) vetoed it. This is not astonishing given the anti-clerical climate of the Setmana Trájica of 1909, referred to earlier. Gaudí was not pleased, did the roof and left the finishing of the building to Jujol, although the idea of painting the entire building had also been shelved.

The roof of the Casa Mila.

The original plans, signed by Gaudí and Milá, show a relatively straight forward roof with an undulating ridge [67]. But now it had become a statement of fantasy, or a comment on the contemporary era. As ever Gaudí returned to his serpentine theme. The top floor is a coiled and sleeping dragon, the skylights its scales, the arches its legs [75].

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78. Casa Milá, Roof, Barc.card.1991. 79. Casa Milá, Roof detail, Revista Salvat, Barc.1991. 80. Casa Milá, Roof detail, Barc.card.1991.

79.



guarded for that. Is it Nietzschian, the great unanswering void after all? Gaudi liked to play games but not on that level. Masini attributed to Barcelona a provincial and decadent Wagnerian Romanticism. This is a factor but is still too closed a definition. The role of the heroic tale needs to be taken into account. The male being incapable of giving birth seeks to do something superhuman to compensate. He wishes to be his own hero, to be valued and of creative worth to his community. This heroism can be expressed vicariously by identificaton with mythical heroes and their quests?

Up until now I have seen the serpent theme as an adolescent sort of fantasy world, possibly suliminal, a sort of proto-historic substratum, or Freudian, being an indication of a severely frustrated ego, or even just as a crowd pleasing element. And there are traces of all of these in it. Now there is an added element of seriousness. Had Gaudí been commenting all along on the political state of Barcelona? I don't think so. I suspect he had been playing at Cristianos y Muros (the Spanish equivalent of Cowboys and Indians) and was now shocked by its enactment in reality. He made his comment, returned to his Cathedral and undertook no further commissions. Reference Notes.

- 1. Literally 'he has imagination'.
- 2. One of the twelve labours of Hercules was to get the golden apples from the daughters of Hesperus, in an orchard guarded by a dragon. He tricked Atlas into getting them for him in the end. Rf. Bullfinch's Age of Fable, pp.105-106.
- 3. For instance Prevost refers to an occasion when the Basque writer Unamuno visited the site, Rf.(23,p48). Other gatherings of his witticisms are not lively.
- 4. The greatest of the 'great worms' that Boewulf had to overcome.
- 5. As part of the original Eixample. It is now (1992) for sale, for an asking price of fifty million pounds.
- The transition of the roofline on the Amattler side is well modulated; that on the upper side has been had an extra floor added later, and no longer relates to Gaudi's roofline.
- 7. This theory of the male hero compensation is, I think fundamental and I will return to it later.

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CHAPTER 3



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81. Opisso's sketch of Gaudí working, Rf.(29, p.85).
82. Casa Battló, roof rib-vault, Rf.(26, p.68).



THE PROFESSIONAL INNOVATOR.

'It should be recognised that Gaudi has no place in Art Nouveau .. based on a few superficial analogies.. nor can he be placed in Catalan Modernisme, which he more than anybody helped to spread. His constant tendancy to realise the systhesis between geometry and mechanical forms gives his work an air of inevitability and coherence that are enough to set him apart from his age'.

Roberto Pane Cantalamessa (2, p.179).

This chapter will address itself to what is possibly Gaudi's most significent area of achievement, his structural researches and innovations. Before doing this it is as well to remember that 'Gaudi's work' is not just that of one man, and I will give a brief sketch of the role of his main collaborators before exploring the central theme of the chapter.

Teamwork.

Gaudí was not just a fantasist let loose with buildings, he was also the head of a professional, talented, intelligent and highly innovative architectural building practice! It should not be forgotten that his works were a collaboration. Gaudí was without doubt something special, both as catalyst and as guiding force, but a surprising amount of the sucess of his work came from the contributions

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83. Casa Can Negre, by Jujol, Barc.card.1991. 84. Josep Maria Jujol, Rf. (24, p.244). 85. Casa Battló, Detail, author, 1991. 86. Parc Guell, Details, author, 1991. 87. Torre de la Creu, Rf.(3, p.122).

83.



of others. He once described his greatest talent as that of getting the best out of people, and this he undoubtedly did.

Partners

The most noteable partners in his work were : Josep Maria Jujol, (1879-1949), whose colour and ironwork delights so much today [84]. He did the bench in the Parc Guell [50-54], the facade of the Casa Battlo [85], the wrought iron of the Casa Mila [74] and endless other details. He was to paint the entire Sagrada Familia, in keeping with Gaudi's respect for the Greeks, who also painted their buildings. He prepared a painted model of the Nativity Portal for the Paris Exhibition of 1900, but it was severely damaged in the fire at the Sagrada Familia in 1936. On his own a competent and quite refined architect, he had a lighter, if less powerful touch than Gaudi [83,87]. Fransesc Pujols, in his famous article (24, p.211) hailed him as 'worth as much as the master', while Tim Benton wrote 'Jujol .. was a genius of invention, a man whose sensuous and spontaneous sense of sculptural form was at least as developed as Gaudi's' (3,p.124).

<u>Francesc Berenguer</u>:(1866-1914) Gaudi's 'right-arm', who handled the practical end of the business, organised the payroll, schedules, siteworks, etc.² An excellent draughtsman, it also seems that he was the one who kept Gaudi's interest in the structural element so keen, and his

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88. Bodegas Guell, attributed to Berenguer, Rf.(3, p.125). 89. Llorenc and Joan Matamala, Rf.(23, p.133).



interest in the new descriptive geometry may account for Gaudi's ability to explore hyperbolic parabaloids (it would certainly have helped in that direction). It has even been suggested that the Parc Guell, and Casas Battló and Milá were a form of escapism for Gaudí from the terribly practical Berenguer. I have little doubt that the often praised excellence of practical and functional design had much to do with Berenguer. Puig i Boada said of him: ' Berenguer, who although not fully qualified was by temperment an architect of outstanding ability' (21, p.47). His death in 1914 was a severe loss to Gaudí.

<u>Joan Martorell</u>, who introduced him to Guell, and got him his first important Church commissions, including the Sagrada Familia. I also feel that Martorell prompted the initial solutions of the Sagrada Familia, and will discuss this later.

<u>Llorenc Matamala</u> and his son <u>Joan</u>: the chief sculptors of the Sagrada Familia [89]. Although their figurative method was based on painstaking studies, photographic foreshortening, life casts and a general Rodinesque approach [151-153,155-157]], Rodin they were not. Their figures are relatively straightforward [154a,b], yet they act as excellent foils to their superb non-figurative work on the Nativity portal [158-162]. A comparison with the present day figures of Subirachs³[175-178] is, I think, to the Matamalas advantage. Both came to direct sitework at the Sagrada Familia.
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(a) Enterior MatanggLu con Errowan (Toward Mark (Errowan et al. 2000) (Toward Families (Errowan et al. 2000) (Toward Families (Errowan et al. 2000) (Toward Families and Errowan (Errowan et al. 2000) (Toward Families and Errowan (Errowan et al. 2000) (Toward Errowan et al. 2

Ruskin, and more directly by the Frenchman Viollet-le-Duc. Many never got beyond this stage, but Gaudi did. Tim Benton summed it up well as follows:

'Although Gaudí was to move away from the direct copying of Viollet-le-Duc's compositional methods, his debt in theory and general approach to the French architect remained profound. For example it was in the Entretiens that Gaudí was introduced to the problem of reinterpreting Gothic structural systems, rejecting the external flying buttress to devise internal systems of bracing and support. Violl-le-Duc thought in terms of cast iron staunchions and wrought iron tie-rods, while Gaudi turned to the more local methods of the Catalan masons for his inspiratiion, but the approach was fundamentally similar. What distinguished the thought and practice of Gaudi, however, was the single-minded tenacity with which he pursued ideas beyond the point of ordinary common sense. So what started out as a response to a problem set by Viollet-le-Duc ended in the extreme solutions of his later works, when columns and walls were sharply inclined inwards to support side thrusts and the tree analogy was taken to the almost absurd length of the Parc Guell buttresses and the nave piers of the Sagrada Familia' (3, p.51).

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This passage states both the accepted case and raises some points of contention. It might be remembered that the flying buttresses of Gothic architecture were skeletal evolvements based on structural understanding. They were in stone but they were structurally no different to staunchion and panel. Viollet-le-Duc was advocating a single logical step. Gaudí was on the other hand asking a more fundamental question. The use of tie rods was not only to counteract the lateral stresses but was an admission of the need to maintain the structurally unsound vertical. We crave walls that are straight up. Yet if we take a load on our backs we spread our legs, it would be unstable not to do so. In this Gaudi was not being 'extreme', nor following 'beyond the point of common sense'. He was rediscovering the point of common sense.

It is true that the influence of Viollet-le-Duc on the Barcelona Renaixenca was profound. Domenech i Montaner was paraphrasing the first volume of Entretiens when he wrote:

'Let us apply openly the forms which recent experience and needs impose on us, enriching them and giving them expressive form through the inspiration of nature and from the ornamental richesoffered to us by the buildings of every period' (3, p.62).

We can easily see Gaudi's early work in this light but, I would claim that it was not long, again the year 1888 For a start of a start the start the annequal of an indication of the start start the start start the start start the start start the start start the start the start the start start the start start and the start start start the start start start start the start start

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90. Colegio Teresiana, Facade, Barc.card.1991. 91. Colegio Teresiana, Corbelled join, Rf.(6, pl.lxxvii). 92. Colegio Teresiana, Smoothed joint, Barc.card.1991.

90.



Passion Facade, and in the vaults and attics of both the Casas Battló and Milá [81,101-103].

The Structural Advantages.

This structural 'feel' is not just an illusion, the parabola is almost equivalent to the Catenary curve, but mathematically simpler. The catenary is the natural lie of a chain and is unique in that it develops only tensile stresses. This is used in suspension cable bridges. If the catenary is inverted to form an arch (funicular arch) it develops only compressive stresses, and these are equal in magnitude to the tensile stresses it had developed in its catenary form. This is a most useful thing because it enabled Gaudi to develop his famous structural models [95]. In hindsight it is a simple idea. If you hang cables from the ceiling, then hang weights from them in proportion to the weights you think they will have to support, the cable will settle into a shape of the natural structural logic of the system. Now, take a photograph of it and turn the print upside down. You have before you a complete plan for a domed and vaulted building [96]. The shapes will be catenary or sub-catenary and so close to parabaloid that, given margins of safety, they can be taken as such. This gives a further advantage in that a parabaloid arch is much easier when allowing for the horizontal spread of building loads. Once the system is understood then the freedom of experimentally sound structural planning it offers is enormous.

·阿拉斯曼提供,英国公司部门上部,资格进行的"安徽法约书"和特征"安尔"后,"哈尔"的"王"的" 在1997年年代,新国"特征"部门部,在1997年1月1日,1973年

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Gaudí had plans for tent and shell structures but his building methods held him back. It is significent that when, in 1971, a group of the top world architects (including Kenzo Tange and Frei Otto) met to study the frontiers of tent, membrane and shell structures, their acknowledged point of departure were the catenary models of Gaudi [97-99].

The parabola also appealed to Gaudí because it was largely unknown as an architectural element. It is elegant, fresh, impressive, not mainline Spanish, not obviously copied from elsewhere, and it seemed to do away with buttresses. A victory in terms of le-Ducism.

The parabola is also harmonious. It is one very specific curve, of eccentricity = 1, for which it was named. You can vary the focus, zoom in or out, but that is all. It will always be an echo of itself and react in the same way. This offers spatial and design harmonies.

Disadvantage.

The drawback is that it is an ever expanding curve. It does not round off as a circle or ellipse would, and will not blend easily with a vertical element. Gaudi showed great ingenuity in treating this but rarely resolved it satisfactorily. The Teresian College [90] is an apprentice piece of such trials [91-94]. Corbelling disguises the problem and works well. Otherwise a new transitional element would have to be found. Later this would emerge as the hyperbolic parabaloid which excited Gaudi so much. The As the first stand and the first state of a structure transformer the state rest of not see house freshed and one states of a position of the structure for the first of the map will show to be as the structure for a close will be first one in the state from the structure of the structure for a state will be structure and from the structure from the structure of the structure sector, page times as the structure of the structure structure over the position of the structure over the structure over the sector, and the structure over the structure over the sector.

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95.8 Gaudi's Catenary Model . STI JOURNAL, 1974.





100. Obrera Mataronese, 1878, Arches, Rf.(15, p.36).
101/103. Casa Mila, Attics, Rf.(31, p.185).
102. Casa Battlo, Arches, Rf.(26, p.85).





- 93. Colegio Teresiana, Corbelled parabolic segment, Rf.(31, p.93).
- 94. Colegio Teresiana, Stepped break to column, Rf.(6, pl.lxxiv).



parabola can be halved and turned on its side to achieve a vertical blend, a strategy used in the bell towers of the Sagrada Familia, but this wastes most of its structural advantages and causes new ones.

The parabola can be resolved into the horizontal, and here Gaudi had some of his most pleasing results [101,103]. He used it in the attics and vaults of his later buildings, and most clearly in the planned chapel for the Colonia Guell, where the catenary model was in progress for eight years.

Parabaloids.

Two things led Gaudí on to parabaloids and to the brink of astounding possibilities. The first was geometrical. In descriptive geometry the set of conic curves can also be seen as a plotting under the rule of eccentricity. This is a ratio of behaviour for a point, so far proportionately from a point, the focus, and in relation to a fixed line, the directrix. It gives a range from 0 to infinity. From 0 to 1 will plot a series of ellipses, 1 gives the parabola, and from 1 onwards plots a series of hyperbolas. To turn directly to the hyperbola is logical but initially compounds the issue as it is an even more expanding curve. But there does exist a three dimensional hybrid of the two, the Hypar.

The Hyperbolic Parabaloid (Hypar).

This is a warped curve made by two counter-sweeping parabolas [107], imagine one upturned and sliding on the

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104/105. Hypar defined, Rf.(17, p.314).

105.





106. Hypar, Saddle to lozenge, Rf.(10, p.385).





108. Colonia Guell, Crypt, Barc.card.1991.

109/110. Colonia Guell, Entrance to crypt, Rf.(31, pp.105,110).





111. Felix Candela, Sta.Maria Milagrosa, Rf.(26, p.175). 112/113. Candela, Sta.Maria Milagrosa, Rf.(10, pp. 142,187).



back of the other. It can also be approximated by two straight line elements sliding on two skew lines [104,105], which means that formwork can be made that will act as a prop while it is being constructed. This was later, in the 1950's, to launch the world renowned careers of Felix Candela [111-113] and Pier Luigi Nervi [116], amongst others [115].

It seems that Gaudi's main use of the curve was as a plastic element that curves to or from any rectangular, square or lozenge shape [109,110], and in its relation to the parabola [114]. It can be used as a sort of three dimensional stretchable fillet. He said of it :

'The reasoned use of warped surfaces dispenses with the need for mouldings, for these surfaces can be adapted to all types of positions and volumes' (21, p.40).

On a building it has a sinewy and semi-organic look. Gaudi had photographs of studies of giant Sequoias that suggested their roots involved parabaloids [172]. He came upon them late in life and they entranced him as The Solution to his quest. Puig i Boada quotes him as saying 'The parabaloid is the father of all geometry'. I think that this was to be taken too literally by his followers, noteably Puig i Boada himself, to the point where it became a universal solution, to the detriment of the cathedral. Used indescriminately the hypars give a modern but slightly





118/120. Finca Guell, Walls, 1884, RF.(15, p.83). 119. Olbrich, Hochzeitsturm, Darmstadt.card.1987.





121.



sterile mechanical feel to the building. They can lose their organic resonance and take on an alien machined coldness.

On the Brink.

It was in these shapes, this limited but resonant vocabulary, that Gaudi found new hope, and to these he devoted much of his efforts in designing the final model solutions for the Sagrada Familia. They introduced him to much greater possibilities but he stopped on the brink. Lluis Sert observed:

'Of his dreams we have only some verbal comments, quoted by his friends .. a vision of a cathedral in steel and glass, a great railroad station with a roof suspended upon steel cables in tension (modern version of the 'elevats',traditional Catalonian tents..).It is all this that makes Gaudi a great pioneer of modern architecture: his courage, his persistent research, his opposition to academic revivalism .. He risked frquent criticism; some of his experiments were failures, but this never discouraged him and he was always ready to start anew' (26, p.175).

Why did he not manage that quantum leap, to show the potential of his final discoveries? I believe he did manage it but he confused the issue so much that the lesson was almost lost. The first confusion was in his character. He edherske musikopur ar dan soka nakorkun soro og sanga aka 1 oktor og k er køret, an talateter med konkoler er ar ette en vedenar og etter

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126a/b. Colonia Guell, Crypt, author,1991.
125. Palau Guell, Column, author,1991.
127/128. Colonia Guell, Crypt, Rf.(31, pp.120/121).





(11 1111) 130.

129/130. Colonia Guell, Windows, Rf.(31, pp.131/136).



had become increasingly reclusive, introvert, religiously pious, untrusting and intolerent of others.

His reputation also confused the issue. The performance, the applied artistry and decoration, the fantasy, the religious fervour and the colour were his most impressive elements and formed much of the vocabulary within which he was discussed. The real power that he finally discovered was in the structure rather than in the fabric of his architecture. By structure here I would include the sculpting of space .

In this last respect the twin tendencies of his time were towards the rectiliniar (e.g. Mackintosh, Olbrich) or the curvilinear (e.g. Guimard, Horta). The first led towards Art Deco [118-120] and to the box fixation of the twentieth century, being the line of least resistance. The second is that of Horta [121-123], Guimard, and Gaudí. While most fed organic elements into their buildings and developed the feature, Gaudí went beyond them and designed the entire space. In this he followed the Baroque sensibility and in the Casa Milá he offered an alternative to the rectilinear. Then typically he obfuscated the issue with ave marias and Arthurian enigmas.

Gaudi's method has also been much ridiculed. It was hard, infuriating, and far from practical, but it was vigourous and, I think, admirable. He designed in all four dimensions, revised endlessly, modulated it in situ, adapted or decorated only as these were necessary. He did his best Area) And in the Heavier Kinds of Archardskield of Archard Area ("Area"). Breddew o waard Ministrika Steel and Archard af South Archard ("Archard Area").

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132.

131-134. Parc Guell, Walkways, author,1991.





135. Parc Guell, Sectional drawing, attributed to Berenguer, Rf.(26, p.122).

136. Parc Guell, Walkway, author,1991.



to get it right but had no qualms about rejecting it if he did not. He tried, learnt, pursued the best solution and ... more often than not suceeded. It was a strenuous approach, and may go part of the way to explaining his seeming limitations and doggedness. To design in this manner is to be very exposed and it is understandable that you move forward in as tried and trusted a groove as you can. Again Sert commented:

'He envisioned his buildings as animated with life; their structures are not preconceived but developed and evolved in the course of his work. They grow; they seem to have a cellular quality. The whole building is an aggregate of interior spaces; it is built from the inside out' (26, p.177).

There was another factor that mitigated against his innovations. He insisted upon traditional building materials and, with the exception of the Casa Milá, he never used reinforcment. He did not seem to want it.

Expressionist.

The structural forward edge was to wait thirty years before it was advanced. The Parc Guell [44-54,131-136], the Schoolhouse of the Sagrada Familia [117] and the brilliant Crypt of the Colonia Guell [108-110,124,126-130] hold lessons that were hard earned and of great potential. So much so that there is a viewpoint that the Crypt was not intended as a practical project but had been commissioned as ¹ Sought of a setter of these of the first and a solar first brief of the first brief of the first of th

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a structural laboratory. It was certainly looking that way (sixteen years for the crypt). Later Gaudí said of it :

'Without the large-scale testing of warped forms - the helicoids of the columns and the parabaloids of the vaults - at the Colonia Guell, I would not have dared use them in the Sagrada Familia, as I have said before. That building was the initial experiment with the new architecture; the church above would have been a monumental moddel for the nave and towers of the Sagrada Familia; this is why I was so upset not to be able to complete it' (21, p.150).

The structural expressionism of this crypt has never been equalled or followed. To express a building as dynamic stresses is to understand it. It is torsion, strength, span and strain under control. Yet we insist on showing our buildings as static and unnatural columns and beams. Some attempt at Gaudi's honesty was introduced much later in the Pompidou Centre's expression of its services.

With hindsight most solutions of elegance seem so simply obvious and inevitable. Now that the elusive step into shell structures has been taken, and computers make structural modelling more acessible, perhaps Gaudi's lead can again be continued.

Reference Notes,

- He was also noted as a hard lask master. Should a sketch on a cigarette packet not turn out to a critical satisfaction he would berate the individual and order it redone. Rf.(1,p.120).
- Berenguer was also from Raus, in fact Gaudi had gone to school to Berenguer's father.
 - 3. Josep Maria Subirachs, (1927), sculptor, who has been given the task of carving the figures for the Passion Facade, They are still in progress. See figs.173-178-



187.

185.	0	Familia, p.210).	Opisso's sketch of Gaudi,
186.	Sagrada	Familia,	Vall's sketch, Rf.(23, p.8).
187.	Sagrada	Familia,	Cunchillo's drawing, Barc.card.1991.

186.



THE PUZZLING MASTERWORK

No discussion of Gaudi's imagination or of his structural innovation would be complete without discussion of his religious work, and of the Sagrada Familia in particular.

This chapter will review Gaudi's involvement in the design of the Cathedral, and question his somewhat puzzling solutions.

Beginnings of the Sagrada Familia.

The project for a church to the Holy Family had begun in 1869 by the Association of Devotees of St.Joseph. By 1875 they had decided to model it on the Loreto in Rome which is built around a shrine purporting to be the original home of the Holy Family. In 1877 one of the leading motivators, Josep Maria Bocabella, a publisher, had a vision of making it an expiatory church in atonement for the secular excesses of Barcelona during the Carlist wars. It was to be built by public donation and not by direct Church funding.

In 1881 the site was purchased and the Diosescan Architect, Francesc de Villar offered his services, free of charge. In 1882 he published his designs in El Propagador [137-140]. These show a fairly straightforward Neo-Gothic church in the English manner. The plan was to be basilican in shape with a latin cross transcept and seven apsidal chapels, somewhat reminiscent of Abbot Suger's church at St.Denis. en silisense ensi och en sols sils sen Riggebrightsi proposition disolaren sols by sole i districte anno ensi Opisition och anno enna silvadi et och dissement i sedal big se plantigen barrs

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139.

137-140. Sagrada Familia, Villar's Original Designs, Rf.(21, p.12).

137.



Gaudí takes over.

The work began, but as the columns of the crypt began to rise a second church architect, and advisor to Bocabella, Joan Martorell objected publically to their design. There were letters to the papers, Villar was not supported and withdrew. Gaudí was given charge of the site. Why? He worked in Martorell's office and had worked as a student with Villar on the stations at Monserrat. I would tend to agree with Casanelles implication that Martorell did not want to take charge himself of such a large and financially dubious project.It was also under the direction of a committee. But he had a point of honour to prove and, I suspect, a young and impressionable architect that he could pupeteer to do it.

The plan was already fixed and in the five years it took to complete the crypt Gaudi and Martorell abandoned Villar's superstructure and set about developing their reply. This was slow in coming. In 1886 Gaudí told the committee that it would be finished in ten years, but it was not until 1890 that he could show them a sketch, so worked over that the paper was blistered. It was published in El Propagador [141]. It is certainly atmospheric, and ambituous, but hardly clear.

The raising of the apse walls (1890-1893) did little to throw light on Gaudi's plans. They are predictable [144], and except for the slightly aztec filials [146] (the (a) a strike end of a strike of the second team of the second control of a second control of the second con

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141. Sagrada Familia, Sketch, Rf.(23, p.26). Gwwi's, '810 142. Sagrada Familia, Sketch, Rf.(31, p.193). 1916.



delightful snail and slug [156] were added later) it is uninspired stuff. A rococco apsidal rosary chapel (1893-1894) followed [145] but still no clear overall vision. Gaudi was, I think, in trouble.

The Grand Design.

Descharnes reports him as 'exhausted by the numerous projects in which he was involved simultaneously' (23, p.45), while Bassegoda refers to it as a period of 'profound disillusionment' (2, p.53). The fact of the matter is that his work since the Palau Guell (1885-1889), at Astorga, the Colegio Teresiana and the Casa Botines, had not been exceptional. He had been left out of the clique for the Great Exhibition. And the Sagrada Familia was not resolving itself.

His approach had been to formulate a Grand Design. Puig i Boada puts it well:

'Gaudí had a poetic vision of the Catholic religion that he attempted to materialise in the Sagrada Familia, which was to be for him the model Christian Church. The fact that he had to create the entire representational tradition, which had long been discontinued, does not detract from its. overall merits' (21, p.72).

It was to be in the Great Tradition, a Biblia Popularum and an emmense prioritised catalogue of Christian do estan do interno comencia por conserva a no como no servariantesi so nº comenzante quantante asserve plaquel do 92 batero da premo como intro addito a solaten o aerato na car danal acaso do torno a direccontrato

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144.

- 143. Sagrada Familia, Medallion in Crypt, Barc.card.1991.
- 144/146. Sagrada Familia, Apse walls and filials, author,1991.
- 145. Sagrada Familia, Rococco Apse Chapel, author,1991.





147. Sagrada Familia, Ground Plan, author from slide of S.F. Foundation,1991.



iconography. He made lists, lists of Saints, lists of prophets, of biblical incidents, of virtues, evils, ceremonies, catalogues of animals, of birds, and of symbols. Then he tried to dominate them into his masterplan, which was to be a liturgical stage set [147] with a cast of thousands.It takes Puig i Boada over one hundred succinct pages just to mention each element.

The church is to be read anti-clockwise from Nativity to Penance, this being also the round of the Church Calender. It was to outdo all other churches in Chrisendom, it was even to be higher than St.Peter's in Rome.

This is the dream of a young, attention seeking and, I suspect, religiously immature man. It is also consummately arrogant.

Nadir.

By 1894 there was little room left for manoeuvre, the foundations of the Nativity portal were ready, a donation of over half a million pesetas had been received from a lady known only as Isabel, and more than one hundred craftsmen and workmen awaited instructions. Gaudí nearly starved himself to death in search of sureness of vision. Déscharnes quotes him as saying: 'Mortification of the flesh begins with work, incessant work..and should be learned by anyone who has no gift for what he has to do' (23, p.45). Opisso described, and drew [150], their finding of him, early in 1894 at his apartment in the Calle de la Diputación, in squaior and 'strange and incoherent' (23, p.43). The description romanticises, and later did much to foster the religious ascetic reputation of Gaudí, but what is clear is that he was practically in a coma, and certainly in a stupor from lack of food. It took them hours to pull him out of it, even after Bishop Torras arrived. I believe that this was Gaudi's madir, he knew the enormity of his committment and suspected the limitation of his mental abilities and the shallowness of the plans he now had to realise. Nor do I

Other Religious work.

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In defence of this last comment I would like to deflect the readers attention to his other religious works of this time.

The Episcopal Palace at Astorga (1887-1893) is a Rhenish castle in the style later popularised by Disney [148,149]. Its proximity to the older cathedral is not to its advantage. The planning solution, reminiscent of that of the contemporary Manchester Town Hall, has its interest; the treble conchoid entrance is a feature, and if the angels were put back on the roof, which was to be white, it might look better, but it is not a deeply religious ediface. It is said that Gaudí learned much from Bishop Grau, and was content in his company, discussing liturgal rites. This may have influenced the planning of the Sagrada Familia.





administrator wanted changes. Gaudí retired, and the building wasn't finished until 1961.

The second religious building, the Teresian College (1888-1889) is more controlled, even restrained [90-94]. This was partly due to limited funding and to the simpler requirements of the Order. The hollow rectangular plan is functional. The use of parabolic arches is remarkable, as is the simple elegance of the corridors. But the overall feeling is that it's a bit of a barn and not, to my mind more than a building problem. There is no feeling of a great religious genius at work.

The Nativity Portals.

Gaudí, much to his credit, recovered, had accepted his committment and began building the Nativity portals. The lists are there: more than fifty figures, thirty six different species of bird, thirty two species of plant life, eighteen animals, an entire rosary beads, a bomb, the signs of the Zodiac and countless other letterings and icons, each attributed a significance and a place in the scheme. It was to be the embodiment of many Scriptural references, of which two seem, to me, to be of the essence: Psalm 148, and The Letter of St.Paul to the Romans. The first of these:

'Praise ye the Lord, all his angels; praise him O sun and moon, all ye stars and light; fire, hail, snow, ice, mountains and hills; fruitful trees and cedars, beasts and cattle, serpents and
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152(2).

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151. Sagrada Familia, Workshop, Rf.(23, p.147). 152. Sagrada Familia, Two statues in place, author,1991.





154(6).

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153. Sagrada Familia, Workshop with Casts, Rf.(23, p.167). 154a/b. Sagrada Familia, Statues, author,1991.





157.

155.

155. Sagrada Familia, Geese, Barc.card.1991.
156. Sagrada Familia, Apse, author,1991.
157. Sagrada Familia, Cedar of Freedom, author,1991.





158. Sagrada Familia, Central Portal, author,1991. 159/160. Sagrada Familia, Detail, Descharnes(23, p.69).







161/162. Sagrada Familia, Details, author,1991.





163

163. Sagrada Familia, Rere of Hope Portal, author,1991.
164. Sagrada Familia, Detail, author,1991.





165/166. Sagrada Familia, Bell towers, author,1991.

165.



feathered fowls; kings of the earth and all people, young men and maidens. Let the old with the younger praise the name of the Lord'.

It was on this Psalm that St.Francis based his famous Canticle of the Sun, and to this influence that writers (21, p.74) would later find a Franciscan flavour to the portals. It has both a naivete and a transcendence, qualities that Dali rightly attributed to Gaudí. It also has that elusive apologetic of Faith, it may be a deep understanding or a shallower secular peddling of popular symbols.

The architectural frame was adapted Neo-Gothic, with parabaloid archivolts. From the start the building was treated as a fully three dimensional mass, interconnected and carefully modulated. It was to be more than a crude sum of its parts.

The statues were painstakingly life-cast, modelled, and enlarged [151,153]. They were then photographed to allow for perspective and modified before they were cut. The result is a set of traditional, somewhat subdued, even lifeless, gestural figures [152,154]. The features are softened and the overall effect is of Italianate 'Holy pictures'-for-themasses in the round. On their own a disapointment, they take on a much more subtle role in contrast to their setting. I do not know if this was a deliberate holding back of the figurative elements but the counterpoint is entirely successful. A start of the second contract the second second

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167-169, Sagrada Familia, Calligraphic details, author,1991.





- 170. Sagrada Familia, Hypars, Rf.(21, p.127).
- 171. Sagrada Familia, Construction of Passion Facade, Rf.(26, p.158).
- 172. Sagrada Familia, Sequoia with net, author of photo in S.F. museum,1991.





173/174. Subirachs, Savings Bank, author,1991.





178.

175-178. Sagrada Familia, Subirachs' work on Passion Facade, author,1991.



'The birth of the Son of God embodies a disruption of nature, albeit a joyful disruption.. in the joyous vibrations that emanate from the stones all Nature is freed for a moment from the groans and pains of childbirth',

St.Paul to the Romans(8, 18-28).

Everywhere the Montjuic stone gives way, erupts or enfolds the portals in a surreal enactment of these words [158-162]. This sculpting is superb and, to my mind, unsurpassed in any building of either the nineteenth or twentieth centuries. It is powerful, sexual (the sense of an actual nativity underlies it), expressionist and even sinister (especially at night [190]), with touches of an apocolyptic unease about it. But there is also a deep driven triumph in it.

Towards a completed model.

By 1904 Gaudí had the Portal well on the way to being finished and turned to the wider design. His energies were returning, with the release of working in the Parc Guell and the unexposed challange of the Colonia Guell crypt. He took on the contracts for the Casas Battló and Milá. He also confidently undertook the further design of his cathedral.

It was at this stage that he changed the twelve apostle towers to their elliptical cross-section and refined their parabolic profiles to intensify their function as tubular bells [165,166]. He never again made lists, in the design The Control of Control (Source) and Control (Control) and Control (Control)
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sense, and from now on his entire thrust was to simplify the scheme and to create a final definitive architectural model, based on his discoveries with catenary models and parabaloids. This is particularly evident in the Passion Facade [171-172,175-178], where the groups of figures are hardly even explained, and there is little doubt that it is the architectural feature that dominates the story line, a fact that Subirachs is now trying to overcome with mixed sucess [173-178]. Gaudí accepted his earlier masterplan, but no longer worried his way through a Cathecetic maze. His approach now was to architectural not religious solutions, and the later work is comparitively bare and directed towards controlling the structural expression of the building.

A sexual mysticism.

It is not that I doubt Gaudi's faith, it just that I see him again reasserting his considerable ego, until about 1910. It is strongly sexual in character and may be a sublimation. The intertwining of a creative life and life in its physical form has always been problematic for the visual artist. To express intensity, glory or the power of transendence in a visual or architectural form almost always needs to work in terms of libido or physical sexual forms. This Gaudí does, and his building can be read as a sexual odessey from the portals of motherhood to the wet dream of the Glory Facade, with its strong link to the themes of death, passion and ressurection. In the constant of the second of the constant of the second of the se

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179.	New York Hotel, Gaudi's sketch, Rf.(23, p.193).
180.	New York Hotel, Perspective view by Matamala, Rf.(23, p.194).
181.	Colonia Guell, Windows, Rf.(31, p.122).
182.	Sagrada Familia, Detail, author, 1991.

179.





184.

183. Sagrada Familia, Staircase in bell tower, author,1991.
184. Sagrada Familia, Staircase in bell tower, Rf.(6, p.142).

183.



Dalí wrote of him that 'his architecture is a tactile erogenous zone' (9, p.12). This sexual aspect is present in his use of parabaloid space or shell, which of itself is phallic, or in its enclosing space, androgenous and implicitly sexual. He justified this upward bulging columnar element by his studies of the crushing of pillars by overloading them. They fail at about one third of their height, thus vindicating with structural logic both the Greek use of enthasis and the profile of Gaudi's bell towers.

Is this an over-excited reading of structural features? I think not, and Gaudi's design for a hotel in New York, (1908) would tend to confirm my viewpoint [179,180]. The hotel was to be over one thousand feet high, twice the height of the main tower of the Sagrada Familia. Bedrooms were to be set in the outer forms, while the central dome was to be dining, exhibition and conference space. Even in an era of New York gigantesquerie and worldliness, this would have been too direct an image. The boardroom comments are unrecorded and the project was shelved.

Nor is it all homage to the male image. Gaudi's Marian devotion is present in more than one building, noteably in the Casa Milá, in the Colonia Guell windows, and in the Sagrada Familia. In this last the tower to the Virgin [192,195] can be read in a Freudian way: The earlier apse walls are a dominated vertical introduction, while the thrusts of the bell towers are offset by the tiers of

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Nor de la la col lange, l'occor mon acor de la cola de la devenion de preside en mone regulare en l'occor de la devenion de la des Ceres de la la des coloradors (en l'estre de la colorador) e tra segnede familiter de Color de Las de las ferra de la color de la resolution familiter de la color de la ferra de la color de la color de las secondadors de la colorador de la color de la color de la color de las secondadors de la color de las secondadors de la color de las secondadors de la color de las secondadors de la color de las secondadors de la color de las secondadors de la color de l attendent 'virgins-in-waiting', accentuated by their blue and white lagrimal/vaginal towers, to just above the main roof level. Then the extraordinary surge of the central tower to its slightly staggered peak and its climactic blue sea urchin, which set against a blue sky will be quite a fusion. View the interior space against this, remembering that it is parabaloid in shape and notice the bone-like level where the space actually breaks through to the upper spire.

The problematic Glory facade [194] can also be read in this way, even to the ejaculated Credo clouds. Is it a prurient reading? The stated theme is of Death, Judgement, Heaven, Hell and Ressurrection. With tombstones in the floor, and Hell the bypass, the 'cones' are risen heavenbound spirits and the clouds theirs on which to sing forth their Credo.

I may be mistaking and maligning an honest religious extasy, but it does have sexual force and it gives his buildings some of their strength to fascinate and to engage the observer. Is it naive, or honest, deviant or sublime on Gaudi's part? I suspect that there are elements of all four viewpoints.

This need in Gaudí to erect such buildings could be read as indicative of sexual impotence, or more certainly of a frustrated ego. There is little known of his sex life, it seems to be presumed that he had none. I've only seen reference to two interests in women and these were from
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188.	-	Familia, pp. 13,1'		ons of	Col	umn sy	vstem,	
189.	Sagrada	Familia,	Final	interi	ior 1	model,	Rf.(23,	p.63).
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190. Sagrada Familia, Nativity Portals by night, Rf.(21, Cover).

188.



afar, short lived and with little hope of development. His relations with his niece Rosa, who kept house for Gaudi and his father, seems unremarkable. Although the state of squalor of Gaudi's own room in Calle de la Diputacion, which she said she was afraid to clean up would suggest that Gaudi kept her at some distance. His friendship with the poet Maragall has been questioned - without conviction.

He is almost universally reported as a person of power in a masculine world of stonemasons and builders, capable of anger or mimicry, but never quite full-blooded, always a figure apart. Here again I see him related to the role of masculine hero and his work as a strategy of creative/sexual compensation. All his life he was trying to be valued as of creative worth in his own eyes and within his community.

Last years.

In his last years Gaudi [196] quietly perfected his models for the interior of the church, it is only popular reverence that calls it a cathedral (no bishopric has been bestowed on it as yet). These later models, noteably the final interior design, are clearer, more serene and possibly less powerful. Lara Masini saw him now as:

'An unquiet spirit, unfulfilled, ever more closed and uncommunicative and in the last analysis, a misfit, in reality fearful of living .. he took refuge in an involved and even troubled religious mysticism'. A busine which is the enders which is the providence of the second of th

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LONGITUDINAL SECTION

191-195. Sagrada Familia, Views and Sections, author from slides of S.F. Foundation,1991.





NATIVITY FACADE





RERE ELEVATION (WITH TOWER OF THE VIRGIN)





PASSION FACADE





THE GLORY FACADE





TRANSVERSE SECTION



This is a bit harsh. I would prefer to finish by quoting from Dalí, who wrote with great intelligence and wit about Gaudi's masterwork:

'Five perfidies have been perpetrated

shamelessly with respect to the spirit of Gaudi..

- 1. Those who have not seen his militent vision are traitors, because they intentionally ignored that Gaudí was an apostolic and practicing Roman Catholic..
- 2. Those who have not touched the bony structures and the living flesh of his delirious ornamentation are traitors because they have.. minimilised his realistic and naturalistic conception of ornamentation.. Gaudi's iconographical vision is almost naive ..
- 3. Those who have not heard the chromatic, glowing stridence of his colour, the striking polyphany of his organ pipe towers .. are traitors because they intentionally ignored the essential role of colour, light, sounds and silence in Gaudi's work..
- 4. Those who have not tasted his superbly creative bad taste are traitors ..as it is good taste alone that posesses the power to sterilise..
- Those who have not smelled the odor of sanctity are traitors, because they have intentionally ignored the angelic essence of Gaudi's genius'. (9, pp.9-14).

Continuance.

Should it go on, this albatross of Gaudi's? I think so, partly because many of the most seductive elements are yet to come (the music, the atmosphere of the interior) and partly because it is a challange. The challange is not just to complete it, but to continue it as Gaudi would have ... by changing it, by experimenting, and by allowing all suggestions to move it towards a resolution. Its method was always one of evolution. Only if it is not changed will it become an anachronism and a pointless monument, better left

alone.



196.	Gaudi, Barc.card	.1991.
197.	Sagrada Familia, author,1991.	Detail of rere Nativity Portals,
198.	Sagrada Familia,	Grafitti, author,1991.
199.	Sagrada Familia,	Barc.card.1991.
200.	Sagrada Familia,	Calligraphic Detail, author,1991.



OVERVIEW

Gaudí has been lauded as a genius and a visionary. He is explained variously as a wayward once-off prodigy, a pious ascetic of militent Catholicism, a tempermental giant of the 'generacio de '88', a mythic Catalan. This is propoganda, traces of the truth selectively amplified.

He was an aloof determined fallible man, not in himself daring but capable of pursuing a tunnel-vision that gave him the conviction to dare and achieve so much. His work permitted colours, patterns, shapes, forms and structures that are delightful and too rare in building. His methodology invited innovation.

He had to fight hard for his 'visions'. Neither in his fantasy nor in his religion did he allow himself the freedom he took for granted in designing his best buildings. He may have been naive, limited in theme or imagination. He did persist to that step beyond and produced some of the most memorable architecture of his era. His work in the Colonia Guell alone would merit him the reputation of an outstanding twentieth century pioneer of structural and expressive design.

Gaudi's masterwork, the Sagrada Familia shows him at his most human, despite the scale of the project. It has been described as a seven course meal served on the one plate, and it is this very evidence of progress and of redirection that sets it apart as worth completing. Gaudi was an isolate, whose life had room for little more than his State 1. An overse device entry of the control of an and a cont

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work. He built, achieved and merited that outcast word 'genius'.

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