



Zaha Hadid (1950-2016)

Evelyn Grace Academy

Date: **2006-10**

Size: 10,745 square metres

Materials: Steel, concrete, glass

Location: Brixton, South London

Patron: School Trust ARK

Education,

and Government Department of
Culture, Media and Sport

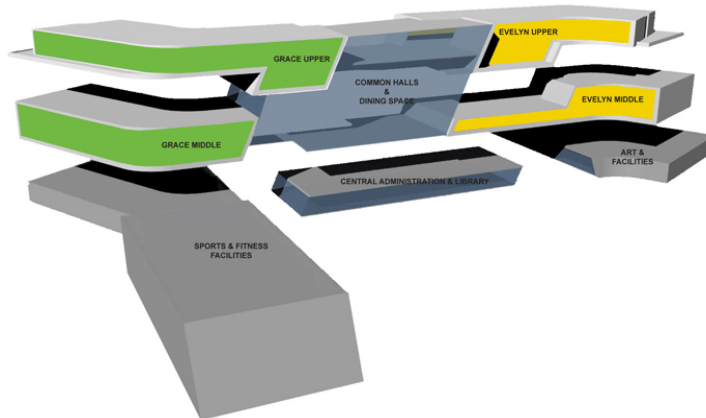
Nationality: British-Iranian

Scope: Art & Identity

ART HISTORICAL TERMS AND CONCEPTS

Function

This non-selective, co-educational secondary academy school has a total pupil body numbering about 1200 students. The school had a vertical organisation comprising four units of 300 pupils, known as 'schools-within-schools' - Grace Middle, Grace Upper (green), Evelyn Middle and Evelyn Upper (yellow) each with their own headteacher, to ease the transition between academic years and maintains pupil/teacher relationships. Each school had a separate entrance in the wings.



The commission aimed to prevent pupils feeling swamped by the vastness of the whole; and to give every student the best possible security - hence the broad, well-lit corridors and clear views afforded to the staff of the places where the pupils interact (blue). School classrooms, art and design studios, drama and sports facilities (grey) were all interwoven, so that pupils did not have far to walk to get from one activity to another. The 'Upper' schools are literally up above the 'Middle' schools, so that

pupils have the pleasurable sensation of 'moving up in the world' when they make the progression from the middle school to the upper school at age 13. It aims to offer a learning environment that is spatially reassuring and hence able to engage students actively, creating an atmosphere for progressive teaching.

By using the rapidly developing parametric algorithms of computer design Zaha Hadid and her practice were able to show this differentiation of use by correlating complex forms into a new composition, looking back to early Modernism with cantilevers and glass hanging walls as well contemporary curvaceous post-modern features.

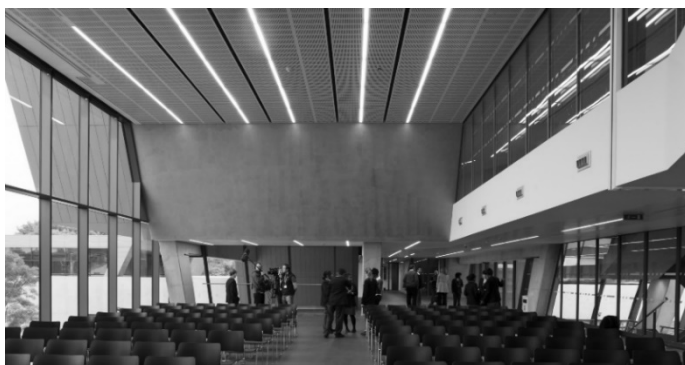
This is a typically dynamic Hadid design, with buildings zig-zagged across the rectangular site. The central block bridges a bright red 100m running track that stretches from south to north, with sports fields to either side. Hadid said of it "*The design generates natural*

patterns of division within highly functional spaces, which give each of the four smaller schools a distinct identity, both internally and externally.” Upper storeys overhang lower ones, and turn corners at different angles, creating drama and contrasts of light and shadow.



The internal spaces are also irregular, cleverly composed around broad central corridors at varying heights and levels, with the occasional double height hall. In most areas the 18m-wide floor plate has parallel walls, providing flexibility and adaptability. The corridors don't have sharp corners or dead ends - they are terminated by windows. Facilities shared by all schools, including the library, sports hall, workshops and performance rooms are located in a ground-floor podium. A central common area is available to the local community and each school has a large 'hub' space at its junction with this area. There are also shared spaces where the upper schools meet. Visitors enter through a central foyer, but each school has its own external entrance and, although vertical movement is inherent in the design, no school occupies more than two levels. Staircases, which can be problem areas, are glazed. The middle school's pupils enter directly into each of the two schools from their respective 1st floor terraces. There is no requirement for the middle school pupils to use any of the main stairs (except in an escape condition) thus avoiding interaction with the other schools. Each middle school is spread over 2 floors connected internally by a single central stair. Initially the two Upper Schools were accessed separately via the end stair cores to the third-floor level. Upper School 2 was accessed from its own first floor terrace. Upper School 1 was accessed from the southwest corner of the site at ground level.

The planning is ingenious, with entrances and terraces on different sides, so that pupils are dispersed around the site and can all have their own special areas to meet in between lessons. Unlike many other new-build academies there is no central atrium, but the space that has been saved by this, has been used for generous corridors and school rooms. Its



highly functional spaces present generous environments with maximum level light, ventilation and understated but durable textures. The communal spaces - shared by all schools - encourage social communication.

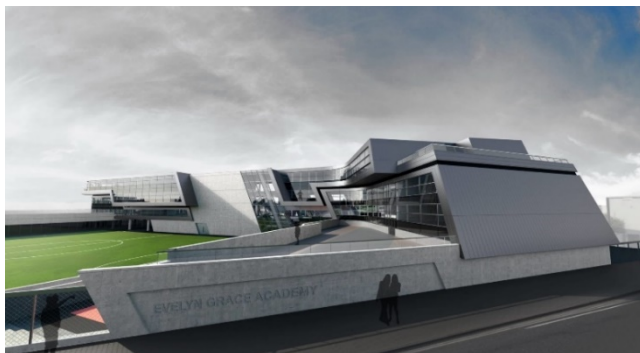
Hadid was influenced by Walter Gropius's *Bauhaus* of 1926 in the appreciation of large double-height central halls, placed centrally, that can be divided by moveable screens

and thus have different uses throughout the day. These halls are shared between the various schools, dining, teaching, assembly, drama and indoor sports area.

Formal Qualities

The 'Z' shaped dynamic ground-plan stretching diagonally across the site maximises space with a long low horizontal composition with a flat roofed silhouette; this may also symbolise the zig-zag trajectory of team sports - the academy's speciality is sport. Despite its regular internal formal arrangement in terms of function, it is asymmetrical on the exterior with the Evelyn schools forming a concave façade around the entrance space, while the Grace schools curve away with a convex façade from the main entrance.

There are entrances on either side which lead under the building as well as into it, which together with the exterior steps mean some sections project while others recede. However, the overall effect is of a unified design dominated by the glass hanging walls and ribbon windows with the only decoration created by the striking horizontals and diagonals dividing the floors. The look of the building, with its sleek steel and glass skin yet dramatic slanting walls would be described as Post-Modern - exciting and symbolic of the confidence and wealth of the sponsors. The monochrome effect of polished concrete and steel is enlivened with green spaces of the sports pitches, and the bright red of the 100m central running track, as well as the small wild-flower garden in a corner.



CULTURAL, SOCIAL, TECHNOLOGICAL AND POLITICAL FACTORS

Zaha Hadid grew up as a Muslim in Iraq, but she went to a private Catholic boarding school before she studied mathematics in Beirut. Her father was the leader of the National Democratic Party, so her family was liberal and progressive, and Bagdad of the 1950s had built a new modern identity with modernist architecture by Le Corbusier, Alvar Aalto and Gropius. At the Architectural Association in London in the 1970s she developed an interest in Russian Suprematism and Constructivism, painting and designing rectilinear works which eventually culminated in her '*slicing, blade-like building*' - the Vitra Fire Station, Germany of 1993, part of the movement known as Deconstructivism. She opened her own office in 1980 and since Michael Schumacher joined her architectural practice, her designs have been dominated by parametricism.

The school is squeezed on to a small site (1.4 hectares compared with the average of 8 hectares for a secondary school) in a residential area of Brixton, south London. The academy is located within two main residential arteries. The Windrush generation had created a tight-knit community famous for its African-Caribbean culture, music venues and Brixton market. However, the media focused on high levels of violent fire-arms related crime, drug-abuse, and the uprisings of the 1980s. In 1997 the new Labour government investigated inner-city poverty and deprivation and introduced plans for an 'Urban Renaissance', asking architect Richard Rogers to set up the 'Urban Task Force'. This led to urban regeneration and gentrification transforming the area. After the 2008 financial crash the Brixton pound was introduced - a local currency to encourage the local businesses.

However, social and economic problems remain and many of Evelyn Grace's pupils come from underprivileged backgrounds.



City academy schools were the brainchild of the Labour government under PM Tony Blair in 2000 and were intended to drive up standards by replacing failing schools in struggling local authorities. These academies were state schools funded by the government but with the freedom to govern independently - all are accountable to the Secretary of State for Education rather than the local authority, in this case Lambeth. The Evelyn Grace Academy was commissioned by the educational non-denominational charity ARK (Absolute Return for Kids), set up by a multimillionaire hedge-fund manager in 2004. ARK Schools chose the design and build route, with Capita Symonds as project manager and Mace Plus as general contractor. Mace appointed Bamber & Reddan as its architect, with Zaha Hadid in the role of *'executive architect and concept guardian'*. ARK's brief focused

on aspiration, and integration with the community, encouraging pupils to achieve high standards in the key areas of English, Maths, Sports and Music. Hadid fulfilled the demands of the brief very effectively. When the Conservatives won the 2010 election Michael Gove changed the role, function and funding of academies.

DEVELOPMENTS IN MATERIALS, TECHNIQUES AND PROCESSES

The school has a typical modernist skeletal construction made of steel, cast in-situ concrete with glass hanging walls. Like mid-twentieth century schools most rooms are 50 per cent glazed, providing high daylight levels. However, unlike many previous schools, sustainability is important so there are enhanced levels of insulation in the roofs, walls and floors to compensate for heat lost. Dimmers and absence detectors controlling lights in perimeter rooms reduce energy consumption and a biomass boiler provides renewable energy. The combination of traditional rectilinear elements, with Hadid's signature curved forms and sloping walls, is possible due to the computer modelling system known as parametricism. This allows for forms to be designed, then modelled in materials so their plasticity and elasticity can be stretched and tested before construction. Such designs are not easy or cheap to build, one contractor pulled out during construction and the total costs were £36m. The procurement method and benchmarking procedures for a school, meant the architect couldn't economise in some areas to splash out in others. For example, it was difficult to justify expensive curved double-glazed units in curved frames. The resulting faceted windows are therefore a compromise. Hadid was disappointed by aspects of the design and build process - for example, the chequer-board lockers in the corridors aren't flush with the walls as intended. Generally, the quality of finishing is impressive.



WAYS IN HAS BEEN USED AND INTERPRETED IN PAST AND PRESENT SOCIETIES

Despite winning many design competitions, this was Hadid's first completed building in the UK and her first design for a school. Controversially in 2011 it won the Stirling Prize for Architecture - Hadid had also won the previous year for the MAXXI in Rome. The chair of the RIBA claimed the sleek modern look made it *"a highly imaginative, exciting academy that shows the students, staff and local residents that they are valued ... the architecture celebrates the school's sports specialism throughout its fabric, with views of student participation at every contortion and turn."* It was not a popular choice and there was much debate about whether the design pleased the sponsors rather than the children, and insinuations that the award was politically motivated. Alan Dunlop called it merely a *"clever piece of product design"* and Russell Brown read it as typical starchitecture - *"an icon ... less about place."* On the other hand, Kevin Singh saw it as *"clearly inspirational for the kids who go there"*.

Evelyn Grace Academy had been commissioned and built under the Labour government but was awarded the RIBA prize under the new Tory government which had a very different line on academisation. Rowan Moore in the Guardian saw *"a political ring to it. At a time when Michael Gove, and his cheerleader Toby Young, are denouncing architects for robbing the public, and denying that good design has anything to do with good education, here is a prize for a school with extreme architectural ambition... it announces that the school is a serious place."* George Ferguson, former president of RIBA saw it as a dangerous message implying that a good school's design can be replicated like the modernist schools built by the London County Council post WWII but *"this can't. It's a one-off"*. Unfortunately the separate schools concept (Grace and Evelyn) had to be abolished fairly soon after the school opened as there was too much rivalry between them!

For a full range of responses see: <https://www.architectsjournal.co.uk/archive/reaction-to-hadids-stirling-prize-win-there-was-a-collective-groan>



Alison and Peter Smithson *Hunstanton Secondary School* 1955 Sarah Wigglesworth Architects *Sandal Magna Primary*
School, Wakefield 2011

FURTHER READING AND LINKS

<https://www.arcomai.org/2010/12/20/evelyn-grace-academy-the-power-of-education-to-transform-lives/>

<https://www.archdaily.com/95234/evelyn-grace-academy-zaha-hadid-architects>

Moore, Rowan *Hadid's dynamic but disciplined school provides a lesson for Gove*
<https://www.theguardian.com/artanddesign/2011/oct/01/hadid-school-gove>

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