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Output 1:
House of Flags, Parliament Square, 2012

Abstract

The House of Flags was a freestanding structure assembled as a temporary installation on Parliament Square during the 2012 London Summer Olympics and Paralympics Games. It was made of 206 plywood panels containing cut out symbols, each printed on one side with the flag of a nation participating in the games and left with its natural finish on the other. Together the flag panels created a large timber jigsaw, a matrix of symbols, shimmering colours, shadows and perforations, inviting the public to experience an image of the cosmopolitan world as well as an image of multi-ethnic London. The structure was designed to be demounted and installed elsewhere. The installation responded to the following research questions: How can the unifying spirit of the Olympic and Paralympic Games and the cosmopolitanism of London be reflected in a temporary installation? How can the design objectives of an interlocking, stacked structure be reconciled with the protocols of heraldry? How can a temporary installation be prefabricated for hand assembly, demounting and reassembly? The architects worked closely with the Flag Institute, the world's leading research and documentation centre for flag information, to determine how flag designs and relationships could correspond with their strict protocols. Once the initial decision to design an interlocking, stacked structure had been made, they worked closely with manufacturers and printers to research the production of the CNC cut printed plywood panels. Panels were designed to be lighter towards the top of the structure for structural stability and to facilitate hand assembly. The House of Flags was a highly visible installation and popular photographic backdrop throughout the London 2012 Summer Olympics and Paralympics and was widely disseminated in the media as a symbol of the games.

Key Words

Temporary installation, cosmopolitanism, heraldry, prefabrication, assembly
AY-Architects was founded by Anthony Boulanger and Yeoryia Manolopoulou in 2005, on the basis of the cross-fertilisation between teaching, practice and research. It is an open form of practice that includes clients, consultants, artists and trades, with an overriding concern for the creation of unique experiences of space, time and meaning. AY-Architects’ projects are diverse, ranging from ideas competitions and exhibitions in public space to small public and private buildings. This diversity tests ideas in different contexts through a layered, open-minded attitude to design. Since 2008, AY-Architects has been runner up in the RIBA Competition for the Brockholes Visitor Centre (2008), was awarded winner in the ‘Best Use of Concrete’ category by New London Architecture, The Building Centre, Time Out and the RIBA (2009) and was one of three winning teams for the 122 Leadenhall Street Site Competition organised by British land and New London Architecture (2009). The work of the practice has been exhibited at the CUBE Gallery in Manchester (2008), the Royal Academy Summer Exhibition (2008), the Staalplaat Store in Berlin (2008), The Building Centre in London (2010), the RIBA (2011) and the Ecole special d’architecture, Paris (2012). They have also published extensively in the architectural and public media including in Journal of Architecture, Architects Journal, field, the Evening Standard and Time Out. The House of Flags was a temporary installation commissioned by the Greater London Authority as part of the Mayor of London’s ‘Wonder Series of Incredible Installations’ and small works installed in public spaces in London during the 2012 Summer Olympic and Paralympic Games.
General Description

The House of Flags (fig.01) was a freestanding structure, 17m long x 8m wide x 4.5m high, made up of 206 interconnected plywood panels representing the flags of each nation participating in the London 2012 Summer Olympics and Paralympics (fig.22). It was assembled as a temporary installation on Parliament Square opposite the House of Commons (fig.19, fig.46). Together the flag panels created a large timber jigsaw, a matrix of symbols, shimmering colours, shadows and perforations (fig.37), inviting the public to experience an image of the cosmopolitan world as well as an image of multi-ethnic London (fig.44). House of Flags was made of FSC certified Finnish birch plywood (fig.41), supported on pre-cast concrete foundational blocks laid into the square (fig.28). The cutting out of the various symbols and stripes into the panels was CNC fabricated (fig.16). On the externally facing elevation of each panel, a nation’s flag graphic was printed directly onto the plywood. The internally facing elevation of the panel was left with its natural timber finish (fig.39). Here the panels formed perforated walls creating an abstracted, monochromatic and unified space (fig.34). At night the structure was lit from within to glow as an inhabited house, highlighting the silhouetted cut-outs (fig.42, fig.47). The structure was designed to be demounted and installed elsewhere, adapting to new configurations and flag hierarchies. The composition for this particular configuration of flags was determined by the alphabetical order of countries.

Research Questions

The design of the installation responded to the following research questions:

1) How can the unifying spirit of the Olympic and Paralympic Games and the cosmopolitanism of London be reflected in a temporary installation?
2) How can the design objectives of an interlocking, stacked structure be reconciled with the protocols of heraldry?
3) How can a temporary installation be prefabricated for hand assembly, demounting and reassembly?
Aims and Objectives

1) To convey the unifying spirit of the Olympic and Paralympic Games and the cosmopolitanism of London

The assembly of the heraldic symbols of each nation of the world participating in the London 2012 Summer Olympics and Paralympics into a united House of Flags was a powerful expression of the unifying spirit of the games (fig.43). It collated politics, graphics and structure into a single assemblage that paid honour to the diversity and distinctiveness of the countries represented (fig.45). The icon of each flag was printed directly onto the plywood panels via a large format UV flat bed printer, which resulted in a sharp image on the timber grain surface. The back of each panel left with its natural material finish. This meant that the exterior façade of the installation was a complex configuration of coloured graphics (fig.40), while the interior façade was unified by the natural finish of the plywood panels (fig.31). On Parliament Square this played with the weathered limestone of the Houses of Parliament (fig.33-35) while the vibrant colours of the external elevations suggested an inversion of the exuberant colours of the interior of the Houses of Parliament. During the day the structure worked as a shadow modulator with the shadows of its perforations shifting from east to west (fig.32-33). At night the structure was lit from within, glowing as an inhabited house and showing the emblem cut outs as silhouetted figures (fig.42, fig.47). Initially planned to run for 800 metres down Park Lane, the Greater London Authority decision to move the ‘House of Flags’ to Parliament Square gave it additional significance. This acknowledged the World Heritage Status of the site and the highly political status of the square, historically charged by rallies and demonstrations (fig.30). The installation proudly exhibited and unified the matrix that makes up a multi-ethnic London (fig.45). Set against the backdrop of the historic Houses of Parliament, it celebrated a community proudly defined by its multicultural identity (fig.46).

2) To reconcile the design objectives of an interlocking, stacked structure with the protocols of heraldry

AY-Architects drew inspiration for the House of Flags from Charles and Ray Eames’ House of Cards of 1952 (fig.02). This was a picture deck of cards each with 6 slots, each printed with an image, made for endless possibilities of stacking. While the original deck was small, the size of playing cards, the Eames designed a further Giant House of Cards in 1953 and Computer House of Cards in 1970. Early iterations of the House of Flags drew directly from the Eames’ cards (fig.03-06), but while the Eames’ cards were interlocking, the panels of the House of Flags could not be if they were to comply with the rules of international heraldic protocol. No flag panels could touch, they could never intersect and cut outs could not be offensive when viewed from front or back (fig.26). These protocols required deviation from the Eames’ model and resulted in a structure of flag panels arranged in alphabetical order joined by laminated connection elements (fig.18), of which there were 8 different kinds (fig.27). This met the design objectives of an interlocking stacked structure while respecting the protocols of heraldry.
3) To design a prefabricated temporary installation that could be hand assembled, demounted and reassembled. The House of Flags comprised 206 FSC certified birch plywood panels that stood on 42 pre-cast concrete foundational blocks (fig.23). The panels were CNC cut, with the majority of them having cut outs of symbols and perforations within them (fig.16-17). The upper-most panels were deliberately made lighter by removing more material through these cut outs and the bottom ones more solid and therefore heavier (fig.21). This was to improve the structural stability of the installation and to facilitate hand assembly (fig.29). Panels were stacked with alternating orientation from row to row (fig.26), joined by eight different types of laminated connections (fig.27). The result was a freestanding structure, 17m long x 8m wide x 4.5m high able to be hand assembled in a single day with the assistance of basic, movable scaffolding (fig.29). This is evident in the time lapse of the installation (v.01). The intention was that this could be demounted and installed elsewhere after the games were over, but this unfortunately did not happen. The GLA tried half-heartedly to auction the entire installation, without success, and there was no budget to store it for future use. AY-Architects proposed to distribute the flags to schools around London as souvenirs or to create small assemblies, but there was no budget for this either. Instead, several flag panels were claimed by top brass at the GLA, including the Brazilian flag, which is rumoured will be given to Rio ahead of the next Olympics. The GLA instructed the main contractor to recycle the materials. AY-Architects retrieved about half of the panels, most of which were returned to Grymsdyke Farm for reuse. The architects kept 30 panels themselves to be able to erect a full height section of the installation at a future date.

Research Methods

Drawing on the precedent of Charles and Ray Eames’ Giant House of Cards, the initial concept for the House of Flags was a maze-like pavilion of large, interlocking horizontal and vertical flag panels (fig.03-06). Subsequent to research into and discussion with heraldic experts, this evolved into the final inter-connected stacked structure (fig.07-10). AY-Architects worked closely with the Flag Institute, the world’s leading research and documentation centre for flag information, to determine how flag designs and relationships could correspond with their strict protocols. Considerable attention was paid to these protocols in the design of panel iconography, cut outs, connections and sequence. The architects worked closely with manufacturers and printers to research the production of the CNC cut printed plywood panels. This was in accordance with their open form of practice that includes artists and trades. A full-scale mock-up of four panels and their connections followed the design development stage in order to test structural, assembly and aesthetic decisions (fig.11-15). The panels were manufactured at Grymsdyke Farm in Buckinghamshire (fig.16-18), and directly printed using a large format UV flat bed printer in Bristol.
House of Flags was a highly visible installation throughout London 2012 Olympics and Paralympics, visited and photographed by hundreds of thousands. The Greater London Authority made a film about it, entitled: ‘Mayor of London Presents a Summer Like No Other: House of Flags, Parliament Square’, 2012. It was also widely disseminated in the architectural and popular media, including in Architectural Review, P.E.A.R., Domus, Arch Daily, Architecture Today, Design Boom and Time Out, London. It featured in dozens of news websites and TV channels across the globe in different languages, including ITV, China Post, Brazil TV and Greek media (fig.48).

The following is a selection of reviews of the house of Flags in the architectural and popular media:

‘Architectural installations pop up around London.’ Design Exchange, 02 August 2012  
[http://www.demagazine.co.uk/architecture/architectural-installations-pop-up-around-london>

‘Your City at a Glance: Putting the Squares in Parliament Square’, Time out, Olympics issue, 2 August 2012, p. 8


[http://www.architectural-review.com/folio/folio-review/house-of-flags/8634814.article#]


‘House of Flags - An installation celebrating multicultural London.’ designboom, 11 September 2012  

‘AY Architects House of Flags.’ Domus, 19 September 2012  

‘House of Flags’ Installation by AY Architects.’ ArchDaily, 03 October 2012  

Laylin, T. ‘Colorful Flatpack Jigsaw Puzzle Turns into a Giant House of Flags in London.’ Inhabitat, 04 October 2012  


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Press

P.01 Athanasopoulou, V. ‘The House of Flags in London’, Peloponnisos newspaper, 26 August, Greece, pp. 8-9
P.02 AY Architects, ‘House of Flags’, Topspace & Art IV, Artpower International, 2013, pp. 144-147 (use first double spread only)

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Video

VO1. Time lapse of the installation of the House of Flags
(<https://vimeo.com/54247765>)

Press

P.02 Athanasopoulou, V. ‘The House of Flags in London’, Peloponnisis newspaper, 26 August, Greece, pp. 8-9
Situated on Parliament Square, House of Flags pays tribute to the diversity of all the nations taking part in the 2012 Olympics and Paralympics. 206 panels depict the flag icons of the nations involved in the games and combined make up a large building jigsaw: a united house of symbols, shimmering colors, shadows and perforations, that invites everyone to experience a matrix image of the world as well as a portrait of multi-ethnic London. House of Flags creates an engaging backdrop for thousands of visitors who explore the installation with excitement until they find their flag and are proudly photographed in front of it.

The installation, designed by London-based AY Architects, was commissioned by the Greater London Authority after an invited international competition for the Mayor of London’s WONDER series of ‘Incredible Installations.’
The exterior of the installation demonstratively produces a global image made up of the Flag iconography, while the interior is defined by an abstracted interpretation of the flags, creating a more unified experience. The design acknowledges the World Heritage setting and highlights the political status of the square, historically charged by protests and demonstrations. Countless stories can be told about the symbolic significance of both the flags and the site and the paradoxical issues of identity and security that emerge in the dialogues between the architects and the various stakeholders during the design process. House of Flags collates politics, graphics and architecture into one gesture.

The installation is a free standing structure measuring 17m long x 8m wide x 4.5m high. It is made of 205 FSC certified birch plywood panels and over 400 laminated connection components, of which there are 8 different types. It stands on 42 pre-cast concrete foundational blocks.

The panels are CNC cut and the majority of them have cut-outs of symbols and perforations. The top panels are more perforated and lighter whereas the bottom ones are more solid and therefore heavier. Panels are stacked like a house of cards with alternating orientation from row to row. The result is a complex layering of colour, light and reflection seen against the imposing backdrop of the surrounding historic buildings.

The graphic of each flag was printed directly on the plywood panels using a large format UV flat bed printer, which resulted in a crisp image read through the timber grain surface. The back of each flag panel was left to show the natural material finish. Curiously, the untreated plywood finish of the internal elevations plays with the weathered limestone of the Houses of Parliament backdrop. At the same time, the vibrant colors of the external elevations suggest an inversion of the exuberant colours of the interior of the Houses of Parliament.

During the day the structure works as a shadow modulator with the shadows of its perforations shifting from east to west. When the sunlight is sharp soft layers of colour light, produced by the vibrancy of the colour-printed panels, are reflected on the natural plywood panels next to them. At night the structure is lit from within, glowing as an inhabited ‘house’ and showing the emblem cut-outs appearing as silhouetted figures.

The structure is flat-pack, demountable and entirely reconfigurable. As a kind of large three-dimensional puzzle it can be reinstalled in new configurations and flag hierarchies of various shapes and sizes.

Its current composition presents the flags in alphabetical order, never touching or intersecting, and carefully considered so that certain cut-outs are not offensive or seen from the back. AY Architects worked with The Flag Institute; the world’s leading research and documentation centre for flag information, to determine how the design of the panels and their connections could respect these protocols.
**House of Flags**

*Philip Tabor, 4 June 2013 (corrected 18 June 2013)*

It was Leni Riefenstahl meets Freddie Mercury. “Mesdames e messieurs”, proclaimed the announcer, “L’Entrée des Drapeaux!” And into the Olympic Stadium – arranged as a huge Union Jack by Damien Hurst, no less – marched the massed polyester flags of the participating nations, each accompanied by a pretty pony-tailed escort in a leather motorbike jacket and spangled Union Jack leggings. Stirring stuff.

London in August 2012 was indeed flag-filled and gloriously populist. So it was an inspired move by AY Architects to construct in Parliament Square an architectural equivalent to those massed banners. Visitors that summer, leaving the city’s hard pavements and setting foot on this grassy patch, the focus of Britain’s political power, found a long pavilion, roofless and open at two opposite corners.

The pavilion’s two L-shaped walls consisted of five rows of plywood panels, each printed on its external face with a flag of the 205 countries participating in the Games. The panels in each row were set at 90 degrees to the row above, suggesting lines of billowing flags suddenly frozen into crowded rectangular order. From the outside the effect was joyously colourful.

Flags must be the oldest form of abstract art. To be identified from a distance amid the battle’s roar their design had to be either simple like a cross or what fashion writers call “colour blocking”: broad stripes of two or three colours, chosen from a very limited palette. To concoct a distinctive flag within these limited constraints is an intriguingly programmatic design problem which often defeats countries. Many national flags are therefore basically the same as others or rotations of them. Poland’s flag (white above, red below), for instance, when upturned becomes those of Indonesia, Monaco and, with a crescent in the corner, Singapore. (This led some visitors to accuse AY, wrongly, of insultingly hanging their national flags upside down.)

This was not AY’s only diplomatic challenge. As its name suggests, the pavilion was inspired by Charles and Ray Eames’s House of Cards, a construction toy comprising cards of identical shape which interlocked, thanks to six slots cut into the edge of each card. To have duplicated this at the larger scale of the London pavilion would have been satisfying simple and symbolic of the intercourse between nations. But some pairs of countries might have resented such intimacy, one imagines, so the flag panels, while touching each other, were supported not by interlocking but by secondary ply and steel components.

What survived of the Eames influence, however, was its tone. The House of Cards, typically of its designers, combined an architectural nod towards modular prefabrication with, in the images printed on the cards, an affectionate nostalgia for traditional Americana. House of Flags echoed this playful mix of modernist form and elegant pop imagery but referred instead to De Stijl and heraldry.

The pavilion’s interior was emotionally cooler. Oblique peeks of the colourful flags remained visible but the dominant view was of the panels’ bare plywood backs. Their hue echoed the stone of the surrounding buildings, as the architects point out, so their overall impact was rather austere. To enliven it, therefore, the flags were pierced, more in the upper rows than in the lower, by perforations which reflected some of the patterns and motifs on their obverse sides. This allowed a game: can you guess the country from just the partial perforations in its flag? The resulting piercing, combined with the zig-zag plan of the panels, also echoed the Gothic louvres, grilles and spiky skylines of the surrounding St Margaret’s church and Big Ben.

More to the point, from the outside the flags stopped being stamps in an album. Their graphic purity now dissolved by the piercing, they became partially and subtly transparent. The flag of one nation could be seen, surprisingly, through the latticework of another.

House of Flags invited participation: visitors sought their national flag and posed before it for the camera, grinning and pointing, or lazed beside it on the grass. The atmosphere was festive, a global village fête. To paraphrase Samuel Johnson, buried nearby in Westminster Abbey, this toy-like temporary pavilion increased the gaiety of nations and enriched the public stock of harmless pleasure. It was a very good summer.