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Geocaching MOOC's and the investigation of virtual places

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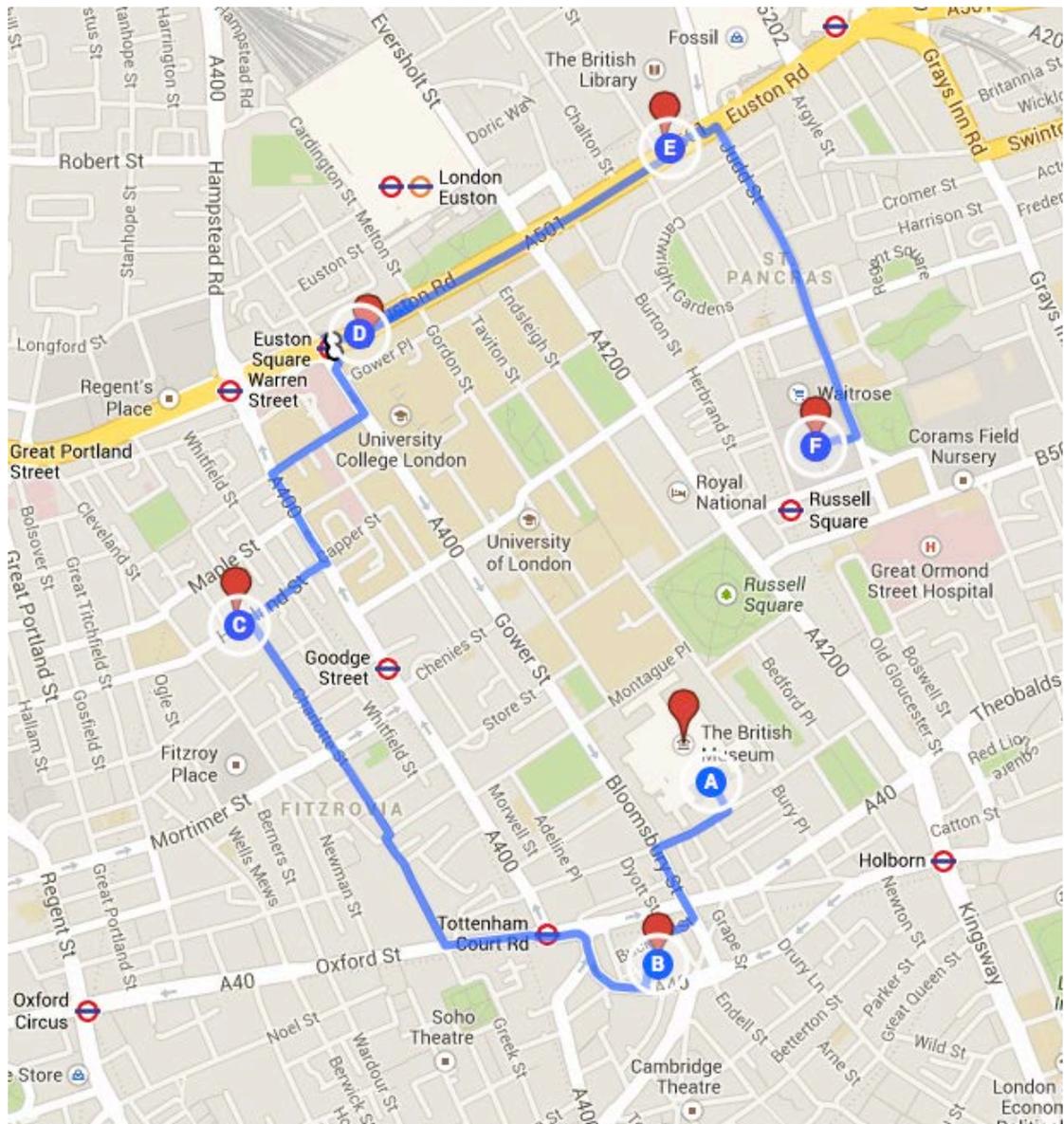
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GEOCACHING ARCHITECTURAL TOUR



This Geocaching architectural tour takes you on a short walk past 6 modern buildings near UCL. At each building you will be able to answer a question, which will give you a number. Once you have all six numbers you will effectively have the coordinates required to find the geocache planted nearby.

The walk is about 4km long and should take about 1.5 hours to do.

N 51° 31.ABC W 000° 07.DEF

THE TOUR

Start at the main entrance to the British Museum on Great Russell Street.

British Museum, alterations by Foster Associates, 2000

Number of glass spheres on each lamp stand near museum main entrance = A

Head west on Great Russell Street. Turn left onto Blooms Street/A400. Turn left onto Central St. Giles Piazza.

Central St Giles by Renzo Piano, 2010

Number of white facades on Google's HQ = B

Head west on Central St. Giles Piazza. Turn left towards St. Giles High Street/A40. Turn right onto Rathbone Place. Turn right onto Percy Street. Turn left onto Charlotte Street. Turn left onto Howland Street.

Arup London by Sheppard Robson, 2009

Number of pipes emerging from 'green egg' – A = C

Head northwards on Howland Street towards Fitzroy Street. Turn left onto Tottenham Court Road/A400. Turn right onto Grafton Way. Turn left onto Gower Street/A400. Go through subway under Euston Road and turn right onto Euston Road/A501.

The Wellcome Trust Gibbs Building by Michael Hopkins and Partners, 2005

Number of structural 'X's on elevation facing Euston Road – 2 = D

Head northwest on Euston Road/A501.

The British Library by Colin St John Wilson, 1997

Number of the word 'Library' on metal screen above doors inside entrance gateway leading to courtyard = E

Head south on Judd Street/B504. Turn right into Brunswick centre.

The Brunswick Centre by Patrick Hodgkinson, 1976-72

Number of letters forming the name of the cinema – 4 = F

Once you have the coordinates you can pin point the location by downloading a free GPS coordinate locator such as 'Goto Coordinates'.

Goto Coordinates

Once you have established the coordinates of the Geocache type in the coordinates into 'Goto Coordinates'. Note: the coordinates are Northings and Westings; you will have to change 'E' to 'W'. The Coordinates will lead you to the edge of a Park.

Hint – Stone, behind superman's changing room.

Please don't sign the log today; wait until the geocache goes live on Geocaching.com.

INFORMATION ON THE BUILDINGS

The British Museum

The courtyard at the centre of the British Museum was one of London's long-lost spaces. Originally a garden, soon after its completion in the mid-nineteenth century it was filled by the round Reading Room and its associated bookstacks.

With over five million visitors annually, the British Museum is as popular as the Louvre or the Metropolitan Museum of Art. However, in the absence of a centralised circulation system it was congested and difficult to navigate.

The Great Court is entered from the Museum's principal level and connects all the surrounding galleries. Within the space there are information points, a bookshop and café. At its heart is the magnificent volume of the Reading Room, now an information centre and library of world cultures, which for the first time in its history is open to all. Broad staircases encircling the Reading Room lead to a temporary exhibitions gallery and a restaurant terrace. Beneath the courtyard are the Sainsbury African Galleries, an education centre and facilities for schoolchildren.

The glazed canopy that makes all this possible is a fusion of state-of-the-art engineering and economy of form.

Its unique geometry is designed to span the irregular gap between the drum of the Reading Room and the courtyard facades, and forms both the primary structure and the framing for the glazing, which is designed to reduce solar gain. As a cultural square, the Court also resonates beyond the confines of the museum, forming a new link in the pedestrian route from the British Library to Covent Garden, the river and the South Bank. To complement this artery, the Museum's forecourt was restored to form a new civic space.

Central St Giles

Surrounded by conservation areas (although not in one itself), this sizeable new development fits in to the scale and streetscape of this old area of central London.

Glass, steel and ceramic are the principal materials used in its construction. The 22 brightly coloured facades, made of 121,000 glazed ceramic tiles, are perhaps the most striking feature of the project. Ceramic sections in yellow, red, orange or lime green alternate with recessed glazed facades to fragment each building's overall mass. Roof terraces and the buildings' irregular shapes add to the impression of a collection of smaller buildings side by side, echoing the variety of building styles found locally.

The two buildings, one residential and one for offices, surround a new public courtyard, the heart of the Central St Giles project. Here, around a big oak tree, restaurants and cafes spill out into the open and animate the space. Pedestrian access onto the island site is encouraged via five passageways, creating a number of linking through-routes.

The complex includes 8400 sq m of residential space: 56 private apartments and 53 affordable housing units occupy a 14-storey building on the western edge of the site.

The 38,000 sq m of office space is divided over ten floors, each with a 2.9m ceiling height. The offices also benefit from a roof terrace on floors seven to ten where rainwater is collected and stored for irrigation.

Arup London

In January 2004 Arup moved into the first phase of the masterplan intended to consolidate all of the Arup properties into a 23,225m² campus.

Phase 1 entailed the refurbishment of existing 1960s buildings, and was carried out in association with London Merchant Securities (LMS), the freeholder of the properties. It comprises a 10,210m² building accommodating approximately 750 of Arup's 2,600 London-based employees.

The campus links disparate buildings and provides both a striking modern image for Arup as well as flexible and efficient office space.

The design encompasses sustainability - a showcase building befitting one of the most modern and innovative engineering practices in the world. A mixed-mode passive and displacement cooled building was designed to maximise user control and comfort, whilst encouraging social and working interaction between groups. Upon completion, the measured annual energy consumption of 250KWhr was significantly better than the existing building consuming 425KWhr

The Wellcome Trust Gibbs Building

The building consists of two blocks of accommodation - one wider eight storey, which faces Euston Road to the north and a narrower four storey parallel block to the south. Over both is a curving glazed roof, enveloping a generous atrium between. On the ground floor, through the main reception area, are large formal meeting rooms, linked by an internal street at the base of the atrium, within which the staff café, an information centre and informal meeting spaces fit.

Above, each floor of the northern block has five separate large flexible working floor areas. These are linked with break out spaces and double height 'mini atria' for casual interaction between team members. The narrower southern block offers more intimate space for individual offices. On its top floor, open to the roof and atrium, there is a restaurant with views across Bloomsbury.

Double skin, glazed façades create an environmental buffer between inside and out. Translucent glazed stair towers articulate the internal space.

The Wellcome Trust also refurbished its original 1930's building, the Wellcome Collection, directly to the east. It links directly into the new Headquarters and houses the public functions of the Trust, the Library and Exhibition, Lecture and Conference facilities.

The British Library

The British Library was voted one of the six most popular buildings of the millennium in a popular poll, and it was short listed for the Stirling Prize.

Included in the accommodation are extensive exhibition galleries (fitted out by the architects), two restaurants, a café, a catering kitchen, and education rooms.

The building is remarkable for its attention to detail. People who use it comment on the pleasure it gives to the sense of touch with its carefully shaped natural materials: wood, stone, brass, and leather. It has been called the last 'handmade' public building in Britain. It is also unusual for the ease with which its geography can be comprehended by the visitor. In spite of its size, most of the building's public destinations are visible from its point of entry, and little use has to be made of orientation plans. The routes through the building are natural and inviting.

The Brunswick Centre

Patrick Hodgkinson's brief was to create an ideograph of city-centre-ness. He formed this design to make housing a central component of the city.

The project is designed to house 1286 people, with a ratio of 2:1 for the commercial sections of shops, offices, cinema, pubs, restaurants and garages.

The basement comprises garages and shops with the upper basement used as a mezzanine level for these stores. The ground level contains a pedestrian shopping street joining Bernard Street to Tavistock Place, as well as 80 shopping units. Another mezzanine level sits above this, with housing along flanks and more shops.

On this level there is a terrace with a landscaped public realm; trees have been planted, and play and sheltered sitting areas created. This level is where the main housing entrance is situated along with professional chambers and welfare rooms.

The ground level is defined is also characterised by concrete grills, which operate to provide the facilities with natural ventilation.

Geocaching MOOC's and the investigation of virtual places

Introduction

Intro. slide 1

Hello. My name is Alexander Griffin. I am a doctor of architecture and I lead the year 1 Architecture course at Huddersfield University.

I would like to talk today about a part digital, part physical treasure hunting game called Geocaching and how I use Geocaching at Huddersfield as a teaching tool for student architects.

There are over 2million geocaches all over the world and 6million geocachers who have signed up to Geocaching.com. This makes geocaching one of the largest, albeit inadvertent MOOC's around.

And at the end of today's conference I'd like to invite all of you to join me on a geocaching trip round the University campus which will enable you to discover 6 of some of the best pieces of modern architecture nearby. I'll talk more about that at the end.

In my abstract I had made mention of Wherigo caching, which is a type of geocaching, but I discovered that it would take too long for a Whereigo cache to be set up for these purposes, so this talk has been slightly amended to focus on general geocaching.

What is Geocaching?

Before I go any further, I think I should explain what Geocaching is for those of you who are starting to look; shall we say, intrigued.

Slide of geocaching website 2

Geocaching is a GPS based treasure hunting game that is played throughout the world. Participants find hidden containers, called geocaches, using GPS coordinates and then share their experiences online.

Geocaches are often placed in areas of natural beauty or interest.

The nearest geocache to us right now is just 300 metres away.

You can find Geocaches using either a GPS enabled phone, such as an iPhone, or if you have one, a handheld GPS. The best way to find Geocaches is to download the free Geocaching app to your phone or look online and print off some maps to take out. Joining Geocaching.com is free. Once you've signed up, you simply choose a Geocache near you and navigate to it.

What you're looking for varies, you can get different types of Geocaches and they come in different sizes, shapes and disguises. Here's a selection of Geocaches. Many are easy to find, some are extremely difficult.

Show images 3-7.

All Geocaches have a log book inside it which you should sign and date – so bring along a pen. Some larger caches also have other items inside (generally small kids toys) which you can take, just so long as you replace them with something of equal value. Once you found a Geocache log your find on-line and you can communicate with fellow cachers about your experiences.

Anyone can plant a geocache; and although there are rules that determine where geocaches are planted, they can be placed pretty much anywhere. Some are under water; there is even one on the International Space Station.

Show images 8-10

I remember one of the most challenging geocaches I've found was in a South African desert. After 2 hour hike my family and I came to a waterfall and behind the water tucked up onto a ledge was the cache. Bringing along children to do the crawling around work is really useful.

Some geocaching require the participant solve a puzzle before they can get the coordinates needed to find the cache. Others require the participant to hunt for information, often relating to the environment or geological features. Still others are only available for a short period of time and take the form of a flash mob.

If you get sucked into it and become a bit of a nerd like me then you could pay for an annual membership of £25. This allows you to find even more Geocaches and you get a load of benefits, which makes Geocaching heavyweights really happy.

How it started

The game started in May 2000, when the U.S. government turned off Selective Availability, a feature that limited the accuracy of GPS signals for civilians. Within 24 hours the first geocache had been placed and its coordinates were posted online.

Geocaching as a teaching tool

Personally, I got into Geocaching because it was the most effective way to get my children away from iPlayer and enjoy the countryside.

Very often geocaches have as part of them a narrative on the local history, or fascinating individuals. They often have a distinct environmental flavour – it really is a middle class sport.

Although geocaching is rarely described as a MOOC, it is perhaps one of the largest and widely used online open access learning adventures that draws people from a multitude of ages, languages and demographics.

One of the benefits that I've taken an interest in over recent years is its use as tool for educating architectural students.

Photo of students 11

For the past two years at Huddersfield University, Year 1 architecture students have utilized traditional geocaching as a means to explore Butterly Reservoir (near Marsden in the Peak District) in preparation for a bothy design project.

Map of Geocaches 12

This image shows a number of Geocaches in the northern part of the Peak District. In this instant all these caches are related to each other; they have clues inside and when you have found all the clues you are able to find an extra bonus cache.

For this project students are required to sign up with geocaching and they have to put 'HUD' in their username so I can recognize them on-line. After an introductory session, rather like the one I'm giving to you now, students are required to meet up at a chosen location which is invariably near a pub and then we set off together.

Photo of students 13

Some students take it very seriously and race against each other so they run off and do their Bare Grills thing, others of us take a more leisurely pace. Phone signal isn't very good on the Peaks so students are advised to print off the maps from Geocaching.com and bring them along.

It's explained to the students that the exercise is a means to study the area in preparation for a design project, which is to design a bothy that is located within one of the reservoirs at a location of their choosing.

Before we used geocaching as a form of site investigation I noticed students would simply attend site, take some photographs and then go home. What geocaching does is it leads the students to places where they not otherwise go; hill tops, rocky crevices, and caves.

Photo of students 14

They have to fumble around off the beaten track and search in the wet bracken for Tupperware boxes. By the time the students come back they are wet and exhausted, but they will have got a real feel for the climate and the austere context of their project.

With the memories of hilly terrain and panoramic views the students are much better placed to design bothies which imbues the environment. Their collective learning is so much more useful than a couple of photographs, and the pint of beer at the end of the end tastes so much better after a gruelling hike.

The students are also able to communicate with each other via Geocaching.com and discuss their experiences and findings.

The bothy project

Resulting from this geocaching site investigation, students are then required to design a bothy. It is explained that bothies are often small huts or ruined buildings that have been restored to a basic standard to provide shelter for passing walkers. They usually have a designated sleeping area at a higher level to avoid sleeping in a draft, but there is no bedding provided. Most bothies have a fire place and they are completely free and unsecured.

The students are required to design their own bothies, which are to be placed on a concrete block measuring no more than 3x3m and this block is to be placed within the reservoir, 5m from the shoreline. Students are also to design a form of access to the bothy.

The key aspect of this project is to encourage students to design a building in response to its context. We don't want students to produce twee huts that might well gain planning permission (not that a planner would ever permit a building actually in a reservoir), in fact we actively encourage a modern aesthetic; but the primary focus of the project is its ability to respond to the local environment.

The bothy should take into account the direction and altitude of the sun paths throughout the year and how sun light reflects on the water's surface; they should consider the prevailing wind direction and bear in mind that it can get very blustery up in the Peaks.

This project is generally undertaken in January so it's not unknown for students to do geocaching in the snow (which is a lot more difficult). Views are a very important factor to consider, both specific framed views and panoramic scenes.

The bothy project is a personal response to the environment and therefore students are asked to record their emotions, findings, observations, and studies using as many forms of information capture as possible and appropriate. This might take the form of sound recordings of bird songs or pictures used to measure the strength of wind by capturing the unkemptness of hair. Sketches are essential and written comments are captured for the world to see on geocaching.com.

In addition to these basic environmental observations students are also encouraged to study the topography, geology, vegetation, hydrology, transport routes, historic events and local communities.

Here are a few images of bothy designs that have been produced.

Slide of trip 15-17

As you can see, these designs are of a contemporary nature; we're not ashamed of that, but if we were to dissect the designs in detail it would become clear that they respond on a number of levels to both the brief and the context – windows capture sun at specific times of the day and year; fenestration make a balance between privacy and views, etc.

Field trip

Using geocaching has been really helpful for us. Students have more enjoyed investigating sites and have been encouraged to delve far deeper into understanding what forms our contexts and what is important about our environments, which buildings need to respond to.

Such is the success that I hope to integrate geocaching into our annual trip to The Netherlands. Each year I take a coach load of Year 1 students to Netherlands on an architectural tour of modern buildings.

Slide of places we visit 18

Over a 6 day period of time we visit Almere, Hilversum, Delft, Utrecht, Rotterdam, a small hamlet with thatched cottages (which is the only diversion we make from modern buildings) and we base ourselves in Amsterdam.

Slide of details 19

To date I have given the students a series of google map, which include every building that I regard to be of architectural merit and students are free to choose buildings to visit.

The icons that locate the buildings are also a key to show if the buildings are free to enter, publically accessible, or restricted in some way. To the left of the screen are further details about the buildings such as who the architects are and a reference to a small selection of books that contain much more information.

The method has worked admirably well over the years. We have only had one incident where a student has had to be sectioned because he took something a bit mushroomy and became suicidal, but apart from that, this trip has been more many students the highlight of their year.

I've got a few slides here of some of the sorts of buildings we regularly visit.

Building slides 20 - 23

However, carrying around a pile of maps and books is not conducive to long days of walking around, especially when many have got back late from the night before – heaven knows what they get up to?

By the time that go this trip, most students will have been told that I work part time at the university and that my other job is as a church minister and so they are not at all surprised to hear my sermon as we leave, which loosely goes along the lines of 'don't touch what you can't afford'.

The plan for this coming academic year is to set up either a series of separate geocaches one for each building or more probably a set of geocaches that group together clusters of buildings and which would have all the information on them linking back to the geocaching.com website.

I should also not at this stage that premium geocaching members can download geocaches onto their phones so as to avoid data roaming charges.

The Trip

So now you know a little bit about geocaching and how I use it as a teaching tool, I'd like to invite you all to join me on a geocaching adventure at the end of the day, if the weather holds up.

In fact I'd like for you to be my test dummies for this year's trip to The Netherlands.

You may be please to know that you won't be required to frog march over military exercise field. I also appreciate that many of you won't have a geocaching app on your phone, so I have written an easy start version on a piece of paper.

If you like you can download all the apps you need, but if you would rather, you can just follow some instructions that I'll hand out.

Slide of trip 24

The geocaching trip will involve walking to 6 really cool modern buildings in a loop round the UCL campus. At each building you will be able to answer a question, which will give you a number. Once you have all six numbers you will effectively have the coordinates required to find the geocache that I have planted nearby.

The walk is just under 5km's long and should take about 1.5 hours to do. If that's too long for you today, feel free to start and find the first coordinate and then do your own thing – I won't be offended. In any event, I will be putting the geocache on-line soon so you can do at your own leisure.

The six buildings we will visit are all by award winning architects, they include the British Museum, Google's London HQ, and The British Library. We should end up at a nearby park where you will be able to find a hidden geocache, but I'm not going to tell you which park it is, because that would be cheating.

Conclusion

That's the end of this talk. I hope at least you will try out geocaching and that I've not just given away all my street-cred.

I hope that I have explained that geocaching can be regarded as a legitimate, if not fun, massive open online 'course' or a learning system at least. And I'd be delighted if you could join me at TIME, WHERE?

ANSWER - N 51° 31.307 W 000° 07.652