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Politics of Architectural Imaging**Four ways of assembling a city***Albena Yaneva***Introduction**

The growing influence of the pragmatist philosophy has gradually changed the way we think of our cities and urban realities and has shifted the focus from architecture as meaning to architecture as process and becoming, from the lives of those who inhabit the cities (de Certeau, 1984) to the life of buildings, streets and other material entities, including images and scale model as actors in urban design. Paradoxically, the divide between subjective interpretations of the city (through the perspective of the *flâneur* experiencing, walking in and perceiving it) and objective interpretations (the city as an objective frame, a map, a set of artefacts, a city guide) is still so much alive in contemporary urban theory. Recent architectural studies questioned the boundaries between these two types of interpretations and attempted to circumvent the divide by tracing cities *in concreto* (Zitouni, 2010; Doucet, 2015). Cultural geographers (Lees, 2001; Graham and Thrift, 2007; Jacobs *et al.*, 2007; Strebel, 2011; Jacobs and Merriman, 2011), archaeologists (Buchli, 2013), sociologists and science studies scholars (Yaneva, 2009a; Houdart and Minato, 2009; Loukisass, 2012) shared a renewed attention to architecture as an on-going process rather than accomplishment (or artefact) of human doing, and engaged in path-breaking research that aimed at deciphering the making of buildings, cities and urban phenomena.

They all shared the assumption that architecture cannot be reduced to a static frame of symbolic meaning (Latour and Yaneva, 2008); that a deeper understanding of architecture can be gained by studying ordinary unfolding courses of action in design, use, inhabitation, maintenance, reuse and urban contestation. The focus on representation was judged as insufficient in its potential to do justice to the complexity of architectural processes; a contemplative attitude to architecture effectively risked ‘paralysing’ its objects of study.

Recent pragmatist-inspired studies of architecture directed attention to non-human entities such as architectural renderings (Houdart, 2008), scale models (Yaneva, 2005), city plans (Zitouni, 2010), urban artefacts (Doucet, 2012), simulations (Loukisass, 2012) and maps (Nadaï and Labussière, 2013). Attempting to unpack what it is to dwell in a material world, Victor Buchli’s seminal work *An Anthropology of Architecture* (2013) revealed the ways materiality of built form in its great variety makes people and society, and triggers different ways of performing the social. Trace the urban: suspend the zoom, multiply the adjunctions between the different

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views, re-localize the sites where one talks about a city, and you will see a city that is invisible (rather than a visible, perceivable entity), that is to be composed, to be recollected, to be aggregated (Latour and Hermant, 1996). By unpacking the different material registers of architecture and tracing the paths and flows of a variety of non-humans that circulate within cities, we are able to gain a better understanding of cities.

This new trend took inspiration from the work of thinkers such as Bruno Latour and the tradition of Science and Technology Studies (STS). STS ‘flourished’ in the 1980s in the aftermath of the structuralism wave, with the writings of Bruno Latour, Michel Callon, Madeleine Akrich, Michael Lynch, Peter Galsion and others, and generated new concepts and methodologies for the understanding of the social. In the past decade STS, and in particular Actor–Network Theory (ANT), gained critical acclaim among researchers in the fields of design and architecture studies. The city was thrust into the STS limelight as early as the 1990s (Latour and Hermant, 1996). Following Michel Callon’s (1996) seminal work, architectural design also became an epistemological territory of exploration for STS-trained anthropologists, who engaged in extended studies of ‘architecture in the making’ and accounted for the materialization of successive design operations (Yaneva, 2005; Houdart and Minato, 2009; Yaneva, 2009a; 2009b). This inspired an interest in the ‘ecology’ of the practice of design, use and habitation. ‘Ecology’ means in this context an alternative to modernization (Latour, 1998). It is a new way to handle all the objects of human and non-human collective life. To view architecture as an ‘ecology of practice’, means to redefine the complicated forms of associations between its beings: habits, skills, buildings, sites, city regulations, designer’s equipment, clients, institutions, models, images, urban visions and landscapes. ‘Ecology’ dissolves boundaries and redistributes agency. ‘Ecology of practice’ is not as a naturalizing metaphor, but rather a politically sensitive concept to capture and understand contemporary design practice. Drawing on ANT as a mode of overcoming simplistic dichotomies (nature/culture, materiality/meaning, subject/object), the ‘ecology of practice’ approach would require tracing the routines, actions and transactions of all participants in design, in complex spatial settings. By re-describing the socio-material practices of design, this method helps circumventing both traditional sociological approaches that rely solely on social contextualization of the working environment of architectural firms (Blau, 1984) and anthropology informed approaches that treat all products of architectural design as collectively and socially constructed through negotiations among all participants in design (Cuff, 1991).

Drawing on the recently developed pragmatist approach to architecture, I will question here the specific relationship between the city and the various images of buildings and urban realms that talk on its behalf (or *represent* it, in philosophical parlance). My ambition is to account and better capture the practical relation between the large scale and the modification of the human and non-human associations. I argue that a better understanding of cities could be gained by literally keeping our compass sights on the paths of image making in design process, following the routes that link the humans with the material world, the subjective with the objective, the built with the inbuilt, the small with the big. To miss following these traces and accounting for these paths is to miss what a city is; and how it can be re-assembled in design.

In other words, I aim to ask further specific questions here: How can architectural images assemble the variable qualities of urban life and recollect the city features? How is a city grasped, made present and enacted *in concreto* through the quotidian process of image-making in design? The city that inspired these questions is one that I happened upon while conversing with the architect Alejandro Zaera-Polo in 2008: Birmingham. Engaging with my desire to understand the specificity of the city, I asked architects ‘What kind of city is Birmingham?’ in addressing how the city could itself be grasped. I further explored this through attending to the process of design and construction of the Birmingham New Street Station (the Gateway project). Curious

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to understand how the modalities of its urban life could be unpacked, I persisted with such questions. These came to form my research agenda.

The chapter offers a practice-driven perspective to the composite nature of the Gateway images, attending to their scalar and ontological specificity, and accounting for the particular way they capture and assemble the city of Birmingham. I trace their making at the architectural practice of Alejandro Zaera-Polo (AZPA),¹ and how they become *real*. I explore their modalities of action and account for the nature of the entities that make the images real, as well as for what can be said to exist *through* them. To do this, I use a variety of sources ranging from participant observation in the office of Alejandro Zaera-Polo in the period 2008–2013, to in-depth interviews with AZPA designers working on the project, content analysis of project related documentation, correspondence between the different stakeholders, official statements and also studies of the Gateway website (www.newstreetnewstart.co.uk/). I have also been able to compile and carefully assess an image archive on the project, in order to get a rounded understanding of the image ontology, its transformations, ‘travels’, compositions and re-compositions.

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The Birmingham I found as my study progressed was not that recollected in history. Rather, it was recollected and re-enacted in design. The first image I found to adequately capture the city in its current state of flux was itself mid-production in the office of Zaera-Polo, before being submitted to further transformations, decompositions and synthesis through design and construction processes (Figure 16.1). Generated on the computers of AZPA designers, morphed and inspected, retouched and enhanced many times, small and large-scale images of the Gateway flooded the screens. Architects spent long days and endless nights zooming in and out these



Figure 16.1 Image of the Birmingham New Street station, concept design of the station envelope

Source: Copyright AZPA

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images, morphing their sequences, adjusting parameters, retouching their contours with Photoshop, rendering colours, choosing textures, or ‘populating’ them with human and non-human entities. The production and use of design images always happened to be a collective venture distributed between designers, software engineers, planners, citizens and politicians. Reproduced and rendered in different versions and according to different types of anticipated viewers, these images left the small office at Curtain Road in London and travelled the world. Touring back and forth between London and Birmingham, they talked on behalf of planners and architects, and enrolled different publics of supporters and critics.

A quick look at these images tells us that architectural visuals are pixelated, rendered and reproduced, yet also animated, enlivened and versioned. They are far from being black-boxed pictures, witnessing iconic design or certain urban knowledge, highly anaesthetized static illustrations of urban visions or mere documentations of different stages of design. Instead, the images are dynamic cognitive objects, tentative and open, vigorously impacting the city reality. They are versatile as they constantly change so as to accommodate the new knowledge about the city. Dynamic also, because of their numerous ‘travels’ and flexible trajectories that all constitute the course of design. Underpinning other forms of visualization (models, animations, simulations), architectural images define the working visions of architects and at the same time cultivate the expectations of many different participants in design who view the images and act according to them.

The reason for choosing to focus on the Gateway images is twofold. First, following the making of these images will allow illustrating how the city qualities of Birmingham permeate design practice: how they are grasped, translated and synthesized. Second, the images are central to city making practice across the fields of architecture and urban planning and they are crucial for how city phenomena are to be seen by all participants in urban design. Thus, architectural imaging is unraveled here as a set of everyday techniques for attending to the specificity of the city of Birmingham. Although the grain of analyses will not be as fine-grained and meticulous as an ethnographic account of these practices will imply (Yaneva 2005, 2009; Houdart 2008), as long as the practicalities of image-making is part of our story, it is a story about design practices. The Gateway visuals form a tentative collection of working images that help in grasping the complexity of the city of Birmingham, its multiple facets, rhythms and diversity. They encapsulate the ‘working object’ of designers and planners: the city-to-be. The visuals enact four aspects of the city in a hologram way: the industrial, the multicultural, the informational, and the infrastructural. Clouds, information flows, crowds and trains move together at once, mediated and enhanced by the steel reflections, thus shaping four versions of Birmingham, four distinct realities, four facets of it that make it one.

The Gateway: ‘New street, new start’

Located in the city centre, Birmingham’s New Street Station is one of the busiest rail interchanges in Europe. Dating from the 1960s, its age is indicated by poor quality internal spaces and an outdated and unattractive external appearance; the station was considered as ‘lacking the requisite capacity to meet the forecast passenger demand’. It was therefore proposed that the station and elements of the shopping centre above are to be remodelled. In addition to these spatio-functional qualms, pedestrian access was judged as poor and not fully compliant with the requirements of the Disability Discrimination Act 1995. Furthermore, the station environment was considered as not only inefficient, but aesthetically unwelcoming, with dark and cluttered platforms and a congested and haggard concourse area. The resulting space was perceived as an uninviting one for both public and station staff alike.

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In December 2007 National Rail (NR) and the Royal Institute of British Architects (RIBA) launched an international competition for developing an overarching vision for a redevelopment of the external form of the station and the atrium roof space. The RIBA brief for the content short-list demanded 'a visionary concept designer to create a landmark building and example of cutting edge architecture'. Six architectural practices were short-listed in February 2008: CRAB Studio, FOA, IDOM UK Ltd, LAB Architecture Studio, UNStudio and Rafael Viñoly. Later that year Alejandro Zaera-Polo was commissioned as concept architect to design the New Street façade and atrium space. The winning scheme was unveiled on 18 September 2008.

The Birmingham Gateway is meant to support over 52 million passengers a year, and therefore demands world-class architectural design in order to 'embody the rebirth of New Street station', in the words of Cllr Mike Whitby, chairman of the New Street Gateway Funders' Board (Herbert, 2008). The overall Gateway project is a £600 million joint scheme between Birmingham City Council, Network Rail, Advantage West Midlands and Centro. Its aim is to double passenger capacity through constructing a concourse three-and-a-half times its current size. This will be enclosed by a giant, light-filled atrium. Accessible, bright and clear platforms, serviced by 42 new escalators and 14 new lifts, will be accompanied by a new station façade. Together, these changes aim to add to Birmingham's growing reputation for good design, while dramatically improving pedestrian accessibility (with eight new entrances).

The RIBA brief for the concept design encompasses the primary aim of 'ensuring that the architecture of the new station building *meshes* with the different urban qualities of the surrounding area – both in terms of the existing fabric and that of proposed new developments' (RIBA Brief, 2008: 4, author's emphasis). The design is also expected to 'reflect the aspirations of modern day Birmingham'. These ambitions are encapsulated as follows: 'Birmingham is the UK's second largest city. The significant investments and regeneration activities that Birmingham has attracted in recent years have transformed the City' (ibid.: 5). A long list of such investments follows, before adding that 'the redevelopment of New Street Station lies at the core of the City Centre Master plan that aims to further Birmingham's position on the world stage' (ibid.: 6). Commenting on the design after the design review panel, chaired by commissioner M. J. Long, on 29 April 2009, the Commission for Architecture and the Built Environment (CABE) concluded that the design of the wrapping façade is a 'striking and imaginative response to the brief' (CABE letter to the Birmingham City Council, 15 May 2009).

In designing the station façade and atrium, AZPA architects were conscious of the indispensable position of the station in the City of Birmingham and the large amount of traffic that the station handles. Birmingham, as the most important regional centre for the Midlands, receives a large influx of visitors, and many of them access the City through New Street Station. It is effectively the first point of contact for many visitors to the city, hence has the potential to form a dramatic Gateway. The latter therefore heavily influences the first impressions of the large, 'floating' population that enters the city on a daily basis. This is judged to be of critical importance by the station's architects, who argue that its current design (and the quality of the surrounding public realm) is inconsistent with the ambitions and calibre of the City, summarized in the following words:

our [AZPA] proposal is aimed at correcting this situation and providing the station with an adequate envelope, which will give a long-lasting impression to those visiting the city, and the appetite to discover Birmingham. For the citizens, Birmingham New Street Station will become an important urban reference, and a source of urban pride.

(Gateway Project GRIP 4 Report, 2009: 8)

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In addition to their ambition 'to correct' the situation, AZPA's explicit objective is to produce an architecture that will be able to communicate the function of the building to the public via railway-specific iconography and other related and recognizable content. Architects elaborate this as an attempt to 'capture the animus of the railway'. By this they mean the potential energy or power contained in certain objects within, and the holistic orientation and arrangement of the train station itself. Taking inspiration from the bifurcating patterns of the rails, or the distortion of perception produced by movement, the undulating, smooth forms of the track field have been transferred and embedded into the geometry of the architectural design; the resulting smooth and curved geometry will employ bifurcation as a formal system of perceptory distortion, while the reflective stainless steel skin will wrap the car park and conceal the roof.

How do architects know and research the specificities of Birmingham's 'situation' so as to learn what this icon-to-be should encompass? How do they extract knowledge of the local, cultural and environmental circumstances of the city, before it is packaged together under the label of 'context'? As I follow the making of the aforementioned envelope images I witness that such understanding must come from a mixture of both material sources and also practices. These are found not only within the textual sources of the brief, drawn from written and verbal feedback from the planner, but also through the practice of actual engagement with the client and the many other participants in the project. This multiplicity of contextualizing sources is crucial to acknowledge, yet 'context' remains the wrong word. It is not a stable framework standing 'out there'. While it is important to consider the relationship of design to the characteristics of its locality, this does not imply a one-way projection of the city as an embracing framework onto the works of design.

The movability of context lies at the core of AZPA's conceptual design. The proposed architecture is supposed to transform: to create emergent effects irreducible to the underlying context. It is this transformative and thus political power, I will argue, that is being communicated by the images such that the envelope actually creates contexts; it produces versions of Birmingham-ness. What one can see in it is not the bright future of Birmingham, traced in a manifesto style, but mundane crowds, flows of information, trains and the variegated shades of Birmingham's sky. One can rather experience the emergent dynamics of the reflective façade, the curvaceous and bifurcating lines underlying the structural or programmatic effects of the envelope. Architects hope the building will gain autonomy (an *animus*) while maintaining a pragmatic effort 'to find formal efficiencies that exist beyond expression, in order to avoid becoming a caricature' (Gateway Project GRIP 4 Report, 2009: 9). Notably, the station's envelope deliberately avoids mirroring the surrounding buildings. By tilting the upper half of the skin inwards and the lower half of the skin forward at precise angles that depend on the topography and the available distance for pedestrians to move, AZPA architects have set up a field of reflection that brings clouds and passengers, nature and technology together. The façade becomes an active mechanism of reflection: imitating, mirroring and mingling different types of movements and agents simultaneously.

A history of past attempts to refurbish Birmingham train station precedes this brief. Some proposals, notably that of John Mcaslan, were denied planning permission and so the required redevelopment was delayed for quite some time. There have also been efforts to build a new station at the outskirts of the city, as it proved difficult to design an up-grade of the existing structure. Despite such challenges, the final decision of planners was to maintain the central location and to embrace this aspect of its regeneration. The current city planners were cautious in broadcasting the envelope images, given the failures of their previous attempts to refurbish the station.

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Alejandro explains the tension this decision lies upon: ‘they were very nervous that if you put an image in the public realm, the people are going to make you accountable for it.’ The images produced during the competition did not pretend to illustrate a ‘promise’ as such. From an architectural point of view ‘everybody knows that the building will never look exactly the same. Everybody understands that things will change, and [this] will be a process in which technically a lot of problems will be solved.’ Alejandro also highlighted Network Rail’s fear of accountability to a strict reproduction of the image, were it to be broadcast. All parties involved in the decision-making process (mainly Network Rail and Birmingham City Council) ensured a restraint on the announcement of preliminary images and their dissemination in the public realm. ‘There were a lot of questions to be answered before the architect came with a final image and they didn’t want to publish anything,’ argues Alejandro in an interview in September 2008. On the eighteenth day of that month, following a lot of discussions and negotiations, Network Rail sealed the deal with the city. The people of Birmingham and the West Midlands were presented with visionary new designs for the station (Figure 16.1). Released in the press, presented and discussed by the designers in public presentations, and widely distributed on the web, these images also ‘landed’ as large panels on the old station and decorated its premises during the construction process. In this way, the old station served at the same time as a site and as a material support of the visionary new design; it mediated this exchange through its very contrast to the new, prepared public opinion, and helped shape the right users’ expectations. For politicians and city authorities, this image did much more than bringing skies and passengers together. The image, indeed, held an important promise, which returns us to the difficulties noted as inherent to its public release.

Despite this, the first public reactions were very positive, explaining that ‘the striking concept designs, clad in shimmering, reflective metal, will create a bold, modern gateway to the city for the millions of people using the station each year.’ AZPA’s design is defined as ‘world looking’ and ‘breath-taking’: a design that ‘places Birmingham on the international map for very high quality, daring design’ (Herbert, 2008). The critics argued that ‘Alejandro Zaera-Polo’s bold architecture symbolizes Birmingham’s arrival over the last few years as a globally relevant city looking to its future, as a connected international hub, to the advantage of citizen and investor alike’ (Herbert, 2008).

What makes this image an intriguing object of study is the fact that the architect’s role in this project is a very specific one. The engineering company Atkinson are hired to do the design. However, no matter how efficient their design and engineering work is, they are not expected ‘to give image to this new development’. As such, Alejandro Zaera-Polo is given this role serving as the crux of the project: ‘to give image’ to a city. This is a city that he barely knows. Commenting later on the design of the John Lewis store AZPA was commissioned to do as a part of the station concept, Alejandro reiterated that their work consisted in ‘wrapping’ the station, that the remit of the architect is reduced here to ‘dressing’ the building. Yet, the images of this ‘wrapping’ have important scalar and ontological, composite and rhythmic dimensions.

Adopting a ‘slow’ mode of enquiry (Stengers, 2011; Yaneva, 2013) as opposed to a ‘quick’ understanding of urban reality that relies on stable definitions, the analysis presented here will step aside from a simplistic characterization of Birmingham. To understand this city one must attempt to account for what is specific to it as revealed in architectural design and by reclaiming the art of dealing with and learning from what some may consider a messy and contingent design process.

The making of the Gateway images

It is October 2008, at the offices of Zaera-Polo, London. I am following the operations of image making: generating, morphing, inspecting, retouching and enhancing small- and large-scale images of Gateway. I watch architects at work and account for the alternating rhythms of scaling the images as they zoom in and out on the computer screen, as they morph sequences of images, adjust parameters, retouch the contours of Photoshop images and allow themselves to be surprised by the results displayed on the screen. Gathering my ethnographic data as such, I follow the making of these images, unravelling the complexity embedded into the micro-operations of rendering a colour, choosing a texture, parametricizing, morphing sequences, and populating an image with both human and non-human entities.

In order to produce these images architects use a computational engine based on quasi-dense 3-view algorithms. In this quasi-dense image reconstruction from un-calibrated sequences of images, all geometry is computed based on re-sampled quasi-dense correspondences, rather than the standard sparse points of interest. This not only produces a more accurate and robust reconstruction due to the highly redundant and well-spread input data, but also provides sparse reconstruction for visualization application (Lhuillier and Quan, 2002). Alejandro explains, 'my generation is blessed. For us computers became tools for design. I think that you can work on the computer and still remain a designer. In a way we witnessed the first integration of technology into the practice' (interview with Alejandro, 10 October 2008, London). For him, an engagement with these tools is crucial in gaining knowledge about the computer rotation and the dimensions that would allow for the production of different designs. Once familiarity with the digital tool is gained, a concomitant improvement in one's knowledge of the design options is made available and the designer can intuit immediately what the geometrical determinations of that form are and define that intimate relationship between quantifiable data and design.

The superior accuracy and robustness of quasi-dense sparse reconstruction is important in accommodating non-human actors into the image: this includes trains, crowds, clouds and digital information. Thus, the making of such images involves a multitude of operations ranging from matching the colours, to defining the sky bluish and reddish nuances, morphing sequences of images, defining the number of parameters, setting up an algorithm, testing the geometry of reflection, measuring the angles of the skin, tilting the surfaces upwards and downwards to make the reflect trains, crowds and clouds, testing how to control the image reflections, adjusting the variable geometry of tracks and bifurcations, modifying colours depending on the sky and the height of the sun at different times of the day, and changing the relationship between quantifiable data and design. Transformation, morphogenesis, combination or superimposition, alteration and also simulation, reproduction, enhancement and augmentation are but a few of the techniques architects employ in the execution of these often complex design procedures.

As I follow Alejandro and his colleagues' computer-based 'craft' in defining the intimate relationship between data and design, adjusting parameters, rotating and rendering images, I witness the reproduction of details and their parametricizing, in defining the façade performance, putting people inside, adding trees, trains and clouds, turning the black of the sky into blue, and enhancing the effects of the image, I am in the world of computational design. Through witnessing first hand the making of the computer image, one can find it consists of an immense array of entities: humans, colour shades, parameters, sequences, settings, rotating and pasting devices, among others. For any so-called 'small' rendering to be produced, the designers must collect and consider millions of colours, hundreds of material samples and millions of repetitive moves in retouching the image. Far from being reduced reflection of the complex realities of the city of Birmingham, the images of Gateway reveal themselves as being more complex,

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multifaceted and composite. Yet, their making is slow, complex and gradual, requiring painstaking operations of adjustment, fine-tuning of colours, transformation, combination or superimposition, simulation, reproduction, enhancement and augmentation.

The multiple natures of the city

What is the ontological specificity of the images described thus far? How do they encapsulate Birmingham and aid at the same time our understanding of the city? Following architects at work I witness that drawing and retouching the numerous images of the Gateway allow architects pragmatically to approach the city of Birmingham as knowable. By so doing they do not simply rearrange its different facets, but also gain in this process new knowledge about it; knowledge about its sound reality, knowledge that is not graspable otherwise.

The stories of the architects about how they get to the city specificity do not expel the reality of the city of Birmingham. They talk about it for it is everywhere: in the materiality of infrastructures, in the industrial history of the 'spaghetti junction', in the movements of crowds and trains. 'Spaghetti junction' is a nickname of the massively intertwined road traffic interchange that resembles a plate of spaghetti; it refers to specific urban developments in Birmingham in the 1960s.² It denotes a suffocating reality, it has noises; it is dense. Hundreds of images witnessing for historical and current developments are collected; pieces of evidence are brought after every design meeting. Letters fly between CABE and AZPA, AZPA and Network Rail, Birmingham City Council and CABE. Moments of disappointment. Waves of excitement. More calculations pile up in the GRIP reports. Experiments with software. Long hours spent on the computer generating millions of versions of the same image. Long evenings in the office at Curtain road. Long afternoons in the construction office at New Street in Birmingham before rushing back to London. Events are made to happen by several types of actors. Words and drawing software participate too. Paperwork, building and construction documents. The local news from Birmingham city council circulates on a daily basis. Words exchanged in planning meetings. Glamorous images shown at public presentation. A model touring the city of Birmingham to meet the citizen. The images of the station are spread all over the sites of design and construction. Buildings. Words. Visuals. Archival images. Publicity snapshots. Flows of information. Crowds. Ticking clocks. Movements of trains and clouds. Design happens among all these things and people.

To witness how the city is enacted in design, I remain interested in the techniques that the designers use to capture its dynamics. Architects tell me that knowledge about Birmingham is gained via the processes of design, as well as through a number of subsequent meetings on the construction site (Figure 16.2). Alejandro relates this to the specificity of the city as a crux of mobility:

At a certain point I was going there very often. That is where my image of the city comes from. It is a large city with a large immigrant population. . . . It is a city that gathers people. People go through Birmingham. The city 'processes' them and then they go back to Pakistan, Canada or Germany, etc. For me, the centre of Birmingham has more of this kind of transient character. This was something that we had detected already through the competition stage. You talk to people who work on the project and nobody lives in Birmingham. They commute. The city itself is almost hollow.

(Interview with Alejandro, 20 July 2012, London)

Acting as a nexus, as passage point for different groups, this city of Birmingham welcomes people from all over the place, integrates them into the economy. Grasping the character of

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Figure 16.2 Birmingham New Street, the image of the station envelope on the construction site

Source: Photos by the author

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the city is essential to the design process, yet that of Birmingham I have found to be multiple and composite. It is difficult simply to isolate one central characteristic. During the research phase, architects 'select a number of elements that belong to Birmingham' and assemble them together to 'synthesize an image of the city' (interview with Alejandro, 20 July 2012, London). In identifying and distilling these elements, the architects traced the city's history back to the time of WW2, during which the city had been completely destroyed. From this they aimed to understand its current condition and geographical location.

Endeavouring to understand how Birmingham was transformed into a hub for transit, AZPA's design opts for a train station envelope that is suited to the task of reflecting this evolutionary history. In this sense the challenge, explains Charles, was

to understand on a macro scale the immediate neighbourhood and the reconstruction that is going on, in and around Birmingham, and also the impact that the development of the public realm around the station will have on the pedestrian flow; thus recreating a city centre that does not exist now, but that I have seen taking shape in the process of construction.

(Interview with Charles, 26 July 2012, Birmingham)

The accumulated reflections of designers emphasize the point that there is no one particular identity of Birmingham, one city nature – stable, given, acknowledged by everyone – that would be captured by one image in the process of design and construction and would inspire a specific architectural form of expression. Rather, a number of features emerge and are synthesized as architects engage in learning about a city that reveals itself through multiple realities.

The image of the station comes as a result of recombining manifold elements in a new composition: the famously black sky of Birmingham turned into blue blended together with the spaghetti junction experiments in the 1970s, along with the experiments of transport and infrastructure, the pollution, and the frantic circulation of people and trains. As the architects put it, 'we collected a number of qualities or things we can build the image from' in forming a computer image that would communicate this 'vortex' character of the façade. This will be made by agglomerating the swarms of people at the train station, coming and going, and the train tracks going under the station, to visualize the city going through the station. As such, the image is made, and in its making Birmingham is enacted rather than observed and represented. It is at the same time composite (as it puts together different entities in a new relational arrangement) and dynamic (as it sets all these entities in motion). By fusing and recombining elements of the city that will be reassembled in the shared pixelated space of the image, architects do not engage in a work of representation. They do not strive to grasp a certain essence of a city by reflecting its unique nature, creating symbols. They rather engage in the much more complex series of operations of composing, recollecting and re-assembling. This generates a versatile image that will resist all further interpretations of its iconic-to-be nature.

The envelope is made to reflect all these qualities recollecting in design research, to gather a number of entities and grasp their movements.

We were wondering how to use the fact that the tracks are going here, and to play with the reflection of the façade, so that when you look at it you will see the tracks reflected on it. So, basically we are reflecting the tracks, the trains and the crowds of commuters. We are reflecting the station, and we are inserting content from the public information system. These are four layers of movements: clouds, information, crowds and trains. All this is captured by the skin.

(Interview with Alejandro, 27 October 2008, London)

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These four layers correspond, I will argue, to four versions of Birmingham that are ‘extracted’ through the process of design. These together give us four different ontological layers of the city; four distinct realities of Birmingham emerge and are being enacted in the image-making process.

The first reality is the industrial one; the black and grey skies of the city are immediately associated with its pollution and associated steel industry (Figure 16.3). As Alejandro puts it:

Birmingham has a famously black sky. It was a very industrial city and was very famous because it was overcast [laughing], like most of the UK, but apparently more. It also used to have a lot of heavy industry – steel, coal, etc. and therefore high-level pollution.

(Interview with Alejandro, 27 October 2008, London)

The industrial history of the city is emergent in the processual reflection of Birmingham’s sky in the steel surface, as it clears: not grey, but blue. The blue hints at the death of the economy and the birth of a city with an altogether different form of pollution. It speaks of the developers transforming it into a city with offices and shopping centres, rather than factories and production lines. Clouds appear and disappear from the envelope as it reflects the various shades of sky above it. Birmingham is thus portrayed by the image as a city in flux.

Another feature of Birmingham that is considered in the process of composite image making is its sociocultural diversity. The image should reflect the ethnic composition of ‘the first majority/minority city in the UK, with the youngest population in the UK; the most “multicultural” city’. This is quite literally illustrated as one can see different crowds of people with various compositions reflected by the steel envelope (Figure 16.3). A sense of the ethnic mixture responsible for the city’s vibrancy is gained as I follow different groups of people in transit: going in and out, mingling and flocking into both crowded and emptying spaces. The moving crowds animating the envelope emphasize this quality of the city: to collect, often temporarily, people from many different cultures.

The infrastructural variation is also very present as the station was also ‘the place where in the 1970s the experiments with spaghetti junctions took place. The highways around Birmingham are incredibly sophisticated and the most extravagant loops were built there at that time almost like experiments of transport and infrastructure’ (interview with Alejandro, 10 October 2008, London). One can get a sense of the existing infrastructure as one follows the train tracks and junctions projected on the envelope (Figure 16.3). The visual reference to the tracks plays a crucial role in successfully conveying the local infrastructural specificity. The station was built over pre-existing tracks, with the city standing a further level above; the trains running below the station thus outline a plurality of wholes hidden in the middle of the city. This gives the façade a unique ability to capture the movements of trains, while itself producing an unfolding loop of the dynamic processes at the train station, rather than an opaque flat surface of symbolic projections.

The fourth level is informational. The envelope will contain information drawn from the public information system, and a number of screens will be inserted in the building skin on the top of the main gate (Figure 16.3). They will broadcast information about the operation of the building or the content. Thus, the reflective wrapping will adapt and convert its own content to enliven the surrounding city. The station will continue the city effort of public space development across Birmingham (a number of similar screens have been placed in front of the city hall and at various other locations). The result will be numerous flows of public information circulating through the reflecting envelope, joining the circuits of movements of clouds, trains and passenger crowds.

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Figure 16.3 Four layers of movement: sky, public flow, train tracks, information flow

Source: Original image by AZPA, public presentation, Redevelopment of New Street Station, Birmingham, April 2008

The four layers of the Gateway image discussed here do not provide different individual perspectives on a single reality of the city of Birmingham seen from the point of view of different participants in design – spanning the industrial, the infrastructural, the socio-cultural, the informational. These are not four essences of the city, neither are they alternative constructions emerging from the past. Instead they are different versions, different realities of the city that coexist in the present and help enact it. Different, and yet related. The image holds them all.

However, the image is also false, unfaithful. Yet that is precisely why the rendering is capable of bringing the viewers into a different dynamics of the city. The image, instead of faithfully reflecting one urban essence, is ‘populated’ in the process of design with people and objects of all kinds: from trains, tracks and ‘spaghetti junctions’, to shops, cars, screens and benches, and of course skies. Every relevant element from the digital catalogue of things, be it a human, a tree or a track, is submitted to the same process of encoding, importing, cutting-pasting and correcting, regardless of their ontological differences. Since the very first renderings appeared on the designers’ screens, a specific thinking about how to bring together trains and clouds, different ethnic groups and information flows, retailers and developers, jobs seekers and commuters, blue and grey skies, new and existing buildings was brought to the fore. Akin to the hybrid space described in Sophie Houdart’s ethnography of the design process and image-rendering that occurs in the office of Kengo Kuma (Houdart, 2008) where people and forest, animals, fairies and muses would create a new cosmology of harmonious cohabitation of humans and non-humans, the Gateway image presents a novel cosmopolitical assemblage (Yaneva and Zaera-Polo, 2015). The envelope creates an impression of 3-dimensionality, populated by

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differentially sized entities with varied ontologies arranged within several non-overlapping steel surfaces. The resulting image effectively exemplifies the cosmopolitical question of co-habitation of different entities and brings together within a single, visually coherent space all of the entities necessary for the Birmingham station redevelopment.

The result is a dramatic envelope with immanent tensions of surface reflections, irregularities and curvatures, with visual interrelationships between the different parts. The image is as dramatic as it is full of action. Action, furthermore, implies relationships and interactions between reflected entities found in the same visual space. Nothing stays constant on the reflective façade: the clouds alter their shades, the information changes, the crowds come and go, and the trains move. The resultant image thus can vividly demonstrate how it is that a number of previously disconnected entities may coalesce in a single continuous rhythmical movement. Each movement of one entity garners meaning through a series of related movements of the other. The envelope 'moves' and regroups the accommodated entities according to their different inherent regimes of enactment.

The image captures the station dynamics. Architects themselves fully traversed the station studying the geometry of reflection and testing the tilted surfaces to ensure their ability to capture and reflect decisive moments of what happens around the station, not the surrounding buildings. The designers explain:

We are capturing from a number of positions the distance from which you look at the building, and depending on that distance, [depending] on the relationship between the public and the building, the angles of the skin have to change in order to show something.
(Interview with Alejandro, 10 October 2008, London)

There is an intrinsic dynamic component of this image: it contains and enacts the life unfolding around the station, the variegated dimensions of Birmingham, in such a way that they become its own image; it is not the image that becomes Birmingham. Each reflection reacts to and acts upon others, on its facets. Each type of entity reflected on the façade merges with the actions and reactions of the multiple actors whose movements are captured. The moving image introduces us into a world of universal variations, universal undulations; a world that has no axes, no centre; one that has neither left nor right.

As the envelope never maintains a single shape or colour, but constantly changes in capturing the different movements, its image will never embrace one specific iconography either. Alejandro explains, 'When the reflective skin is tilted backwards, thanks to the ambers, it reflects the sky and clouds, and when it is tilted downwards it reflects the crowd or the tracks' (interview, 27 October 2008, London). Constantly seeking 'a certain effect of reflections', its dynamic nature is expressed in two ways: through the changing arrangement and composition of entities, and through alterations in colour. Once it is wrapped with the reflecting envelope, the building will change colour depending on the sky and on the height of the sun at different times of the day: at 12am it may have bluish colour, in the afternoon – a more reddish hue. Its image therefore should also capture this constant lack of aesthetic stasis. The planners' demand to fix the representation arguably goes against the image's inherent propensity to vary as it grasps, in a dynamic and rhythmic way, the multiple realities of a city.

The city 'reassembled'

'Now, I understand what kind of city Birmingham is', says Charles, as we walk around the construction site of the Birmingham train station in 2012 (Figure 16.4). Following architects at work through the processes of design and construction of the New Street station, one has

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Figure 16.4 The architects on the construction site, July 2012

Source: Image by the author

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gained an understanding of Birmingham that is far removed from a vision of the city as merely an objective frame, or context, wherein one may place a building. It escapes the simplistic, yet widespread, divide of urban theory between subjective and objective perceptions.

The speaking of Birmingham *tout court* without mentioning the design images of its new developments, the imaging techniques, the disputes in design meetings, the changes of the façade geometry on the building site or any other modality of enacting the city will require bracketing all practicalities. Birmingham would appear in isolation. Yet, if one follows the practices of image making, the city of Birmingham would appear as a flux of information, as a flow of moving clouds changing their hues according to the reflecting steel surface of the façade, or as an important vortex of movements of crowds and trains. That is a city that has many variations, but at the end is one.

Tracing the making of the Gateway image one can see that at any moment in the study of AZPA one does not witness a radical shift from face-to-face interactions to bigger social structures, from the pixels on the designers' computers to the genuine context of Birmingham. A sense of Birmingham-ness is gained in the process of design, in the recollection of the multiple realities of the city; Birmingham is rendered and reassembled. Thus, tracing the actions of architects allows us to witness a city that is very different from the one that appears through the many subjective experiences of the Birmingham *flâneurs*, the station users or the building experts. I remained sceptical to the appeal of urban theory that: 'people, not spaces and structures, animate the city' (Beaumont and Dart, 2010). Rather, I illustrated the potential of images to 'capture', 'animate', 'assemble' and 're-enact' a city.

The story I tell here is very English. If I slightly altered the lenses of my study, if I were to travel to Birmingham and London every day, if I were given access to every single design meeting, if I were able to witness every move of the designers' hands and software, attend and record every public presentation of Alejandro and follow every model and image of this new development, I would tell different stories. The specificity would differ. However, what would not alter is the coexistence of different ways to enact Birmingham. There is a multiplicity that stays the same. As long as the practicalities of enacting the city are kept unbracketed, the varieties of Birmingham multiply. In the process of design the city appears to be more than one – without being fragmented into many.

All these images of the Gateway do not represent Birmingham; they rather attend to the multiple reality of the city. As the city cannot be removed from the practices that sustain it, its reality is multiple. Through image making, the city becomes a reality that is manipulated in practice. The city that one is able to attend to by following the practices of architects is never alone. It does not stand by itself. It depends on everything and everyone that is being active while it is being practiced. The city is not 'out there', and ready to be represented. It is being done. The images carry new realities with them. They trigger various enactments of the city of Birmingham. Different enactments entail different ontologies. They come with a different way of doing the city. Yet, the realities produced by architects are not random. They are ontologically political (Mol, 1999). Ontology defines, in standard philosophical parlance, what belongs to the real, the conditions of possibility we live with. If the term 'ontology' is defined with that of 'politics', then this suggests that the conditions of possibility are not given; that reality does not precede the mundane practices in which we interact with it, but is rather shaped within these practices. So the term 'politics' in this context works to underline 'this active mode, this process of shaping, and the fact that its character is both open and contested' (Mol, 1999: 74–75). Other variations of Birmingham than the one presented here possibly exist and may be enacted in other architectural practices. Enactments of realities are not a matter of free creative choice; they are always socio-material workings.

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The Gateway images are far from being passive and illustrative, their role is rather performative: images serve as astute devices used to train the eyes of those who make the city: to teach designers and viewers how to see and how to think architecturally, but also to educate planners and builders how to read the images of this new development. Images invoke a number of workaday choices: which software to use, whether to retouch a rendering, how many copies to render, how to teach planners to read it. Through their reiterative tutorial performance, new knowledge about the city is gained and new urban knowledge is communicated.

Re-describing the operations of image-making illustrates that a building is not simply inserted into a context that exists 'out there' and prior to any process of design. It is rather an object that will redefine the city, will reshuffle it and set it into motion. The station becomes an extension of Birmingham, 'a variation' of it; its images act as sophisticated reflecting machineries that drive the city to 'go through the station' and trigger contextual mutations. Relying on re-composition, not representation, the images also convey an idea of architecture that is very different from the traditional understanding of buildings as static structures put into space. Flipping through changing arrangements of entities, the moving envelope image makes it impossible to perceive a building as an aesthetic object, a flat projection, or a surface of symbolic life. No matter how overwhelming and complex the Gateway building is meant to be, it is impossible to grasp it in one instantaneous moment; its perception has temporal and rhythmic qualities.

Following the production of the Gateway images, I travelled through hybrid spaces and was able to witness a city that is not made by powerful men (planners, politicians and visionary architects), but a city that emerges as its images trace many intricate relationships, involving a variety of non-human and natural entities. Follow the Gateway images and you see Birmingham, not on the images, but through them. Watch their variations, and you will be able witness its multiple natures. When designers and planners meet in design meetings, when viewers inspect a huge scale model of the station, when builders and citizens of Birmingham cross paths on the construction site of the station, they all together jointly give shape to the reality of the new train station; they witness Birmingham re-assembled.

Notes

- 1 The project started at the Foreign Office Architects (FOA), which later split into two practices, and the project continued with the practice of Alejandro Zaera-Polo – AZPA, currently AZPML.
- 2 The term was originally used to refer to the Gravelly Hill Interchange on the M6 motorway in Birmingham, United Kingdom. In an article published in the *Birmingham Evening Mail* on 1 June 1965 the journalist Roy Smith described plans for the junction as 'a cross between a plate of spaghetti and an unsuccessful attempt at a Staffordshire knot'. Since then many complex interchanges around the world have acquired the nickname of 'spaghetti junctions'.

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