STRUCTURE, AGENCY AND SPACE IN THE EMERGENCE OF ORGANISATIONAL CULTURE

073

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Abstract

In this paper we address the role of the spatial environment in the construction of organizational culture. Using the example of a large and long lived museum institution we show that two quite distinct organizational cultures characterize different departmental groups. We show how these relate to organizational role and to spatial behaviour. We argue that the two groups are related to the production of scientific and social knowledge respectively, and that they are realized through relatively static 'agrarian' and more mobile 'nomadic' overt behaviours. We suggest that the organization is neither 'fragmented' nor 'ambiguous' in cultural terms, but that the twin cultures are an emergent response to conflicting organizational demands: to generate new knowledge and to provide a valued experience for the public visitor. We conclude with a methodological proposition: that the inclusion of a spatial stratum alongside the individual agent allows feedback and emergence of structures and cultures. We suggest that this offers a model for resolving the structure/agency debate in sociology without resort to conflationary theories.

Introduction – Organisational Culture and the Problem of Method

The question of what an organisational culture is, and of how it is formed, transformed and reproduced, was a major subject of interest in the 1980's when it became a key strand in a move to redress the balance of organisation theory from the prevailing orthodoxy of scientific management (Rousseau, 1990). More recently culture has become central in discussions of methodology as a part of what is known as the 'structure agency debate' (Willmott, 1997). In this paper we describe a single main case study and refer to a number of subsidiary examples to investigate the role of the spatial configuration of an organisation's buildings, and the disposition of the organisation within that, on aspects of culture. Adopting Rousseau's definition of culture as spanning the fields of artefacts, overt behaviour patterns and norms, as well as the fundamental assumptions and beliefs upon which these may be based, we address the question of whether the

spatial configuration of an organisation's buildings can play an active role in defining organisational culture and the trajectory of its evolution. The question here is whether it is possible that groups of individuals can be influenced by the spatial configuration of buildings they inhabit in the definition of their shared beliefs or behavioural norms.

073-02

In order to address this question we describe a large museum, an organisation type which is both complex and in which the main focus in the literature has been on its public facing activities (Roland & Rojas, 2006). We suggest that the organisation has evolved to incorporate at least two dominant 'cultures' both of which are necessary to the institution's survival, but each of which is characterized by different forms of spatialization and different spatial behaviours. We argue not only that space and spatial behaviour are inherent to the definition of these cultures, but that organisations can generally be characterized by multiple cultures realized through their differential relations to space. We suggest that this is far from either an 'ambiguous' (Martin, 1992; Alvesson, 1993) or a 'fragmented' (DiMaggio, 1997) realization of different cultures, but is a specific structural/organizational response to conflicting organizational demands and the fluctuation of the nature of demands over time. However, this proposition raises a longstanding question regarding sociological method. How is it possible to take into account the 'doubly hermeneutic' nature of social systems without falling foul of reification or the epistemic fallacy (confusing the appearance of something for the thing itself), whilst at the same time accounting for their clearly emergent nature? Our answer to this question involves treating of the spatial environment in which human agents are embedded and live their lives as an object of study in its own right, analytically separable from the individuals that use it.

The Museum as an Organisation

The British Museum is an example of an organisation type that has received relatively little attention in the organisation theory literature so far as its 'back of house' organisation is concerned. Although it is by any standards a unique institution it embodies a number of properties of far wider application than museum organisations alone. Considered at its simplest, it comprises two groups of people – staff and visitors – and a collection of physical artefacts, all brought together by a building. The interface between staff and visitors is one that is common not only in museums and in galleries, but also characterizes many service type organisations from retail to education and health and from performance spaces to prisons. Similarly the relationship between people and physical artefacts characterizes factories and research laboratories as well as shops, offices and the home. Most consideration of the museum building type has focused on the public spaces in which visitors are brought into contact with artefacts, however our concern here is with the 'back of house' aspects of the organisation type as these are affected by the public purposes of the institution.

Of course the divisions outlined above are a gross over simplification of the real case in anything but the smallest museum. The artefacts may be divided into a number of discrete collections of different kind and provenance; the visitors range in interest and origin, between 'dippers and divers', according to age and nationality, and come in different groups from individual and family to tour group and school party; the staff are also divided into categories with different remits, from cleaners, security and facilities, to management, curators and conservators; each having quite different and specific roles with regard the objectives of the organization. In turn, these organizational objectives are anything but clear cut. Museums straddle many

boundaries between different social, cultural, political, educational and economic agendas. This situation is subject to continual change as the role and funding of the institution evolves. Finally, the technological and cultural context within which the museum operates, which create the media it has at its disposal for public engagement and display and the conditions for conservation of artefacts, their analysis and interpretation, is also subject to rapid development and change.

There have been two key drivers of organisational change over recent years: the changing nature of public patronage, and increasingly vocal calls for restitution of important artefacts and collections to their territories of origin. The history of the British Museum is one of gifts of a series of significant private and royal collections, mainly gathered internationally. During the early years of the institution its main purposes comprised the preservation and maintenance of access for academic study and public display of these collections. It would be fair to say that the curators of collections dominated the power structure of the museum while the specific collections dictated the dominant categories of subjects of study for the museum as a place of academic research and learning.

More recently the economic pressures on government have been transmitted to the museum through a much more stringent requirement to account for public investment and expenditure against well defined policy targets, and to raise private sponsorship wherever possible. The calls for restitution however are if anything more fundamental, bringing into question the role of the museum not merely as a national collection representative of Britain's imperial past, but as a global institution with heritage value in its own right. These pressures have pushed in one direction; towards delivery of strategic public educational and access targets for both UK and international audiences. The objectives of major private donors and sponsors have been very similar. This has led to a growth in a series of functions that lie across curatorial departments, namely education and exhibitions, as well as of those functions that can bring additional income such as retail. At the same time, the importance of strategic planning to meet the requirements of the public and private sponsors and to address both UK and international political debates has led to a growth in importance of the museum's central directorate.

The Museum has throughout its history been a scene of almost perpetual change; through the acquisition of collections, building of accommodation to house them, and from time to time, through their release for the establishment of specialist museums. The most recent of these episodes occurred with the departure of the British Library and the subsequent Great Court scheme. This single event resulting in the release of nearly 60% of the building to the museum has made necessary widespread reorganization and has served to further strengthen the role of the central buildings and operational management of the organization which, in line with other public institutions has increased its shift toward a 'professional' estates management. There has, in other words, been an increase in the centralization of power at the same time as a growth in cross cutting and public facing functional departments. All of this has been stimulated by the changing nature of the institution's economic and political operating context, as well as more general social, cultural and economic changes in society at large. It has also gone hand in hand with an emerging field of study and practice – museum studies or museology has grown in importance over recent decades and now defines itself as a profession with respect to this wider field, with its focus in the public areas of the museum activity (Rowland & Rojas, 2006).

The Museum as an Institution

The collections form the core of the British Museum, however the value of the collections lies in that they capture and make real our knowledge of the history and cultures of the world and the interrelations of these through time and across territory. This knowledge is derived from study, and it is a primary function of the Museum as an institution to foster that study. It is also the responsibility of the museum to translate that knowledge, to set it in a context of contemporary relevance, and to make it accessible to the public at large. This requires an intimate relationship between specialist scholarship, the collections themselves and those with expertise in education and translation for public exhibition and display. Maintaining the contemporary relevance of the interpretation of the collections as well as ensuring that this conveys the latest in scholarship and understanding requires a continuous programme of work through exhibitions, publications and events.

The museum also has a responsibility to maintain and conserve the collections. This function involves a high degree of scientific, technical and craft expertise which is vested in the experience and scholarship of individual conservators. Again the conservation of collections of the size, value and scope of those held by the British Museum requires a continuous programme of work.

It is the reputation of the museum as a world centre of scholarship and conservation science, as well as the standards of access it provides to the collections and their curatorial staff for academic scholars and general public from all parts of the world, that lies at the heart of its defence against calls for restitution. However, this defence also rests on the argument that by bringing together collections of artefacts from around the world into a single location, understanding can be gained and communicated of the history of human culture as transcending limited present day national boundaries.

Against this background the organisational structure of the Museum is clear. It consists of the series of curatorial departments, defined by the collections and the way that these are currently understood as fields of academic study, mainly (but not exclusively) in terms of geographic territory or historic period. These are supported by a series of 'public facing' departments whose role is to interact with the scholars and collections and to construct a range of interfaces to the public at large (e.g. Education, Exhibitions & Marketing). The collections are conserved by teams of conservators, some linked to specific collections others with a broader remit, but all informed by specialist expertise in particular materials, technologies and methods that relate to different types of artefact. The organisation as a whole is supported by the range of HR, finance and estates services required to keep any organisation running, but all operating within the more or less unique constraints of the museum's function and estate. Finally, both operation and new developments require funding, and the Directorate and the Development department's joint role is to secure this. However, funding for new development requires both strategy and a firm intellectual basis. Constructing this in turn requires an intimate link between and drive from the curatorial and public facing departments.

The result in terms of organisational structure is that the museum is characterised by both 'bottom-up' and 'top-down' organisational forms: the former where professional and specialist expertise, and a direct relation to the artefacts, collections and members of the public places ultimate responsibility for decisions on the individual; the latter where a need for overarching strategy requires a holistic and long term view of the organisation and its public, political and financial operating

context. However, neither form can operate in isolation from the other. The bottom-up individual needs to communicate and work with others interested in the same domain, and knowledge sharing is a critical component of the collegiate culture of this kind of structure. Similarly, the whole essence of successful top-down management and strategy in this type of structure depends on facilitating excellence in the bottom-up core of the organisation by articulating a vision to which all can ascribe. Finally, everything turns around the collections and the public. Thus storage, access to artefacts in daily work, and access to the public, both the academic students who may be long term visitors to the organisation, and the general public within the galleries, all form a critical component of the working of the organisation.

073-05

The organizational structure of the British Museum is therefore both complex and not directly comparable to that of more conventional corporate organizations. The same holds for the spatial structure of the Museum and the way that this is allocated to the different departments and used by them. The museum as a workplace has developed a very specific form of spatial layout and a structure defined by the nature of its activities, and significantly different in nature to that of the contemporary office.

The Spatial Culture of the Museum's 'Back of House'

The current structure of the museum must be considered separately in terms of those areas accessible to the general public and those accessible to staff with a house key. Considered in terms of the public, the building is accessible from the Southern entrance at level 2 as well as the Northern entrance at level 1 (Figure 1). However the main weight of accessibility is focused on the Southern entrance and the Great Court with substantial, but much less accessible gallery areas at level 6. For the staff the structure is quite different in that not only are there many more entrances from the surrounding urban fabric, but the entire level 1 storage area, the external perimeter roadways and the Russell Square accommodation is accessible. In addition there are vertical circulation links within the back of house areas, and the house key gives access between back of house and public galleries in several locations. For staff then, the buildings are substantially more permeable than for visitors, and the weight of accessibility lies at level 1, including the external perimeter roads. This level holds the whole building complex together so far as staff circulation is concerned.

If we now turn to the allocation of space to departments we see that they appear to be radically dispersed over may levels of the building (Figure 2). A closer examination of the way that these separate areas are linked by the circulation structure shows that there is a consistent vertical logic to the disposition of most departments. Typically a curatorial department may be allocated storage rooms at level 1, gallery space at level 2 or 6 and work space at an intermediate level. However, typically this series of spaces will be linked by their proximity to a single vertical circulation core (Figure 3). In this way the accessible space structure at level 1, and to a lesser extent the public galleries at level 2, serve to link together a whole series of different departments via the different vertical circulation cores.

A detailed analysis of the circulation structure open to staff with a house key shows that at a global 'whole museum' scale Level 1 (and to a lesser degree, Level 2) serves to integrate the whole building. The main horizontal perimeter routes on level 1 are the most integrated spaces and the external streets surrounding the Museum and the access into the Great Court from the south integrate at Level 2. The back-of-house areas at upper levels are relatively segregated at this 'whole museum' scale (Figure 4). When we repeat this analysis using a localized 'three step' measure of accessibility we find a

Figure 1:
Plan showing back of house (darker) and public galleries (lighter).

Figure 2:
Departmental allocation

completely different picture (Figure 5). Here the analysis shows that different parts of the back of house at upper levels form highly locally integrated areas, each separated from the others by more segregated circulation routes. It turns out that these locally integrated, but globally segregated areas are most often the main focus of the work space in curatorial departments, forming islands of locally accessible space within a department, which are linked to other adjacent departments by relatively segregated routes.

073-06

Level 4

Level 5

Level 6

North entrance

Level 1

South entrance

Level 2

Level 3

Back of House
Front of House

Level 4

Level 5

Level 6

Level 1

Level 2

Level 3

Africa, Oceania and the Americas
Ancient Egypt & Sudan
Ancient Near East
Asia
BM Company
Building & Estates
Coins & Medals
Contractors
Exhibitions
Greek & Roman
King's Library
Learning & Information
Operations
Prehistory & Europe
Prints & Drawings

This analysis confirms the experience one has of moving through the departmental areas of the museum, where relatively isolated and deep circulation routes suddenly lead one into the active focal areas at the heart of a department. Generally one can continue to walk through and out of that department by a different route, through more segregated circulation before entering yet another live focus in a different department. Often these live central areas of the departments are associated with local storage for collections currently the subject of study, staff offices, libraries and adjacent student rooms. Student rooms in particular play a key role within a number of the curatorial departments and are highly valued by staff. These rooms give access to the collections for in depth study over long periods by the general public and academic visitors. The spaces are often architecturally highly elaborated and may be double height forming a focus for views from staff workspaces at more than one level (Figure 6). As a totality these make up coherent groups of spaces organized around a locally integrated but globally segregated circulation space and working area core. The spatial relationship between different parts of a single department can be visualized as a scattergram of global integration against step depth from a particular location. Figure 7 shows this for the keeper's office in the Ancient Egypt and Sudan department. The scatter shows two orthogonal clusters: a positive correlation grouping workspaces, student room, library and public galleries at level 6, and at a deeper level a negatively correlated cluster of the main collections storage and front of house public galleries at level 2.

From time to time the larger scale circulation routes take one through parts of the public gallery space. The threshold between the two is always locked by house key and invariably forms a 'surprise' as one emerges from back of house into the architecturally articulated and populated public galleries. On occasion the doorways themselves are concealed from the public side in the form of a false book case front or panelling. This movement from back to front of house is a highly theatrical experience of the building spoken about by staff: "it is like Alice through the looking glass"; and we believe valued by them as an aspect of the museum's spatial culture.
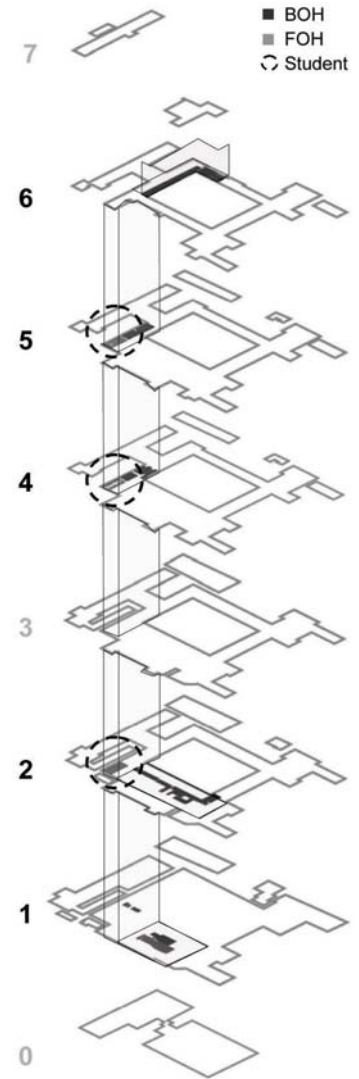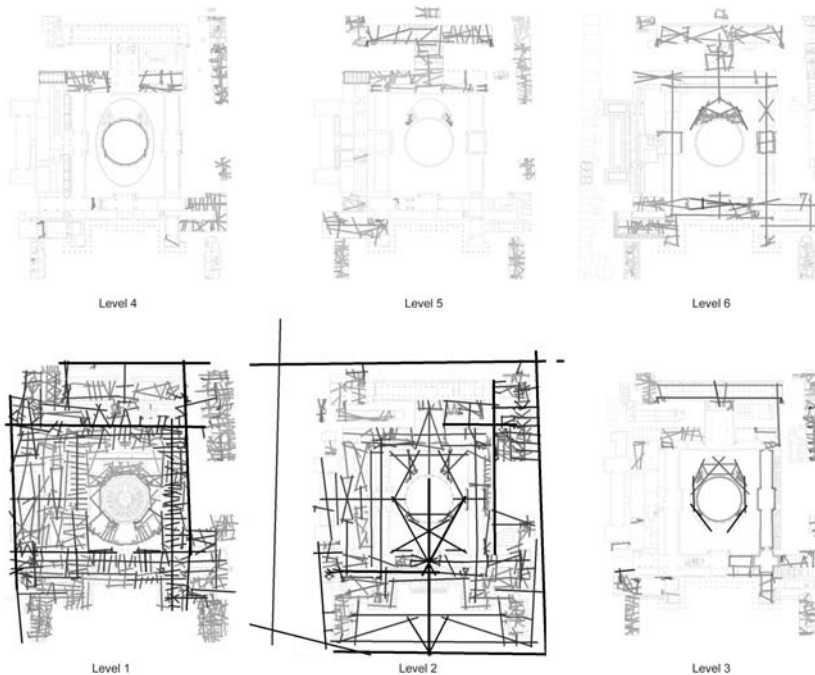
Figure 3:

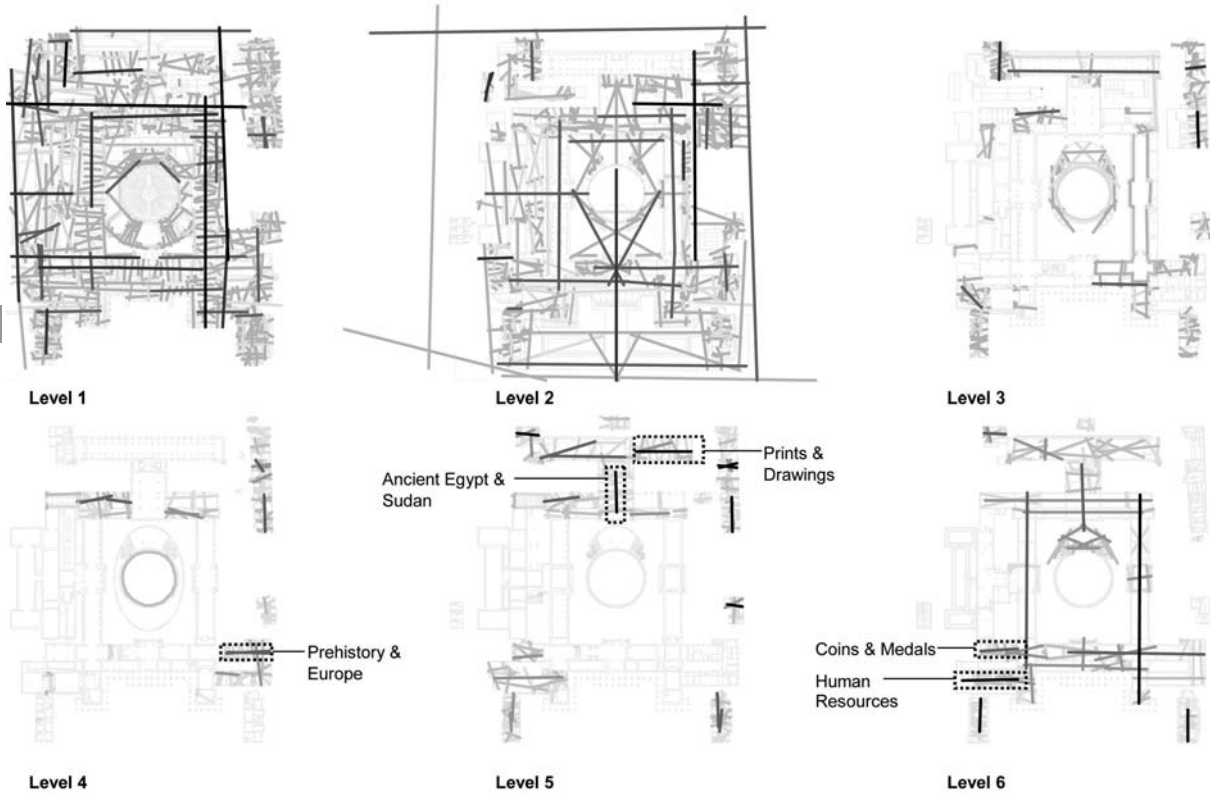*The vertical distribution of the various parts of the Ancient Near East Department*

Figure 4:

Global integration in the axial map of the whole building

Level 4

Level 5

Level 6

Level 1

Level 2

Level 3

Spatial analysis – local accessibility

073-08

Level 1   Level 2   Level 3

Ancient Egypt & Sudan

Prints & Drawings

Prehistory & Europe

Coins & Medals

Human Resources

Level 4   Level 5   Level 6

Figure 5:

Radius 3 integration in the axial map of the whole building showing local foci within departments

Figure 6:

The student room for Ancient Near East, and as overlooked from the curators' workspace (right)

These spatial characteristics extend to the Russell Square buildings, the Directorate and the south eastern wing which each have locally integrated 'focus' areas relatively deep within them, often on upper floors. Again, as one moves through these areas one continually passes into and out of the view of people working in the area, and routes within the local focus areas are generally well surveyed by staff. However the routes linking these between departments are often completely devoid of surveillance or even any obvious ownership.

Taken together we believe that this analysis can help us define the characteristic spatial culture of the curatorial areas of the museum as a series of active islands, each forming the live centre of a department, but linked to other departments by segregated and 'un-owned' circulation space. In certain areas of the museum, particularly in the Russell Square and south-eastern wings, although local spatial foci

exist, these appear to bear little relation to departments, often with departments separated over several floors or with different departments inhabiting single live focus areas. The fact that these departments tend not to be curatorial also affects staff experience of them. For curatorial staff the critical interactions between staff members, student visitors and the working collections and libraries seem to be organised around the locally integrated spatial foci. These give a strong sense of identity to the department as well as a sense of differentiation between departments and a relatively territorial (perhaps agrarian) spatial culture, tied to the collections storage, student rooms and public galleries via a vertical circulation core linking down to Level 1.
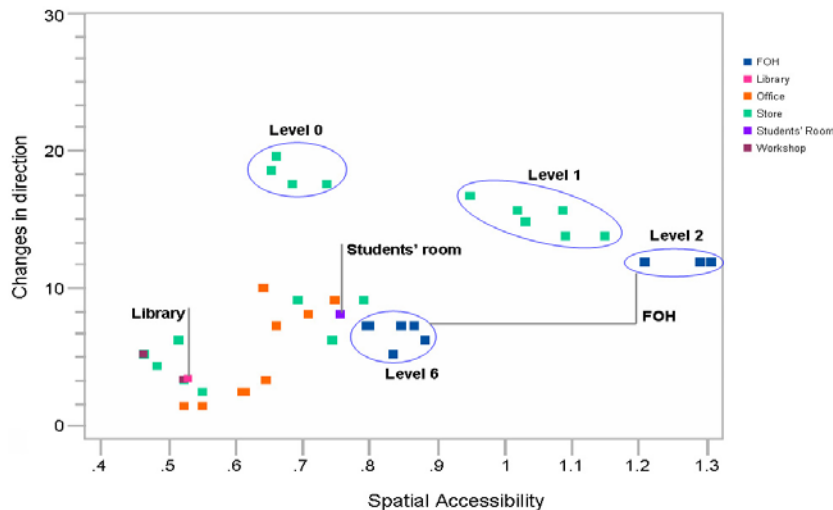
073-09

Figure 7:

Scattergram of changes of direction from the keeper's office to all other spaces of the Ancient Egypt & Sudan department

However for the non-curatorial departments interactions are needed both internally with other members of their own department (and these appear often not to have any easily recognisable spatial focus), or with members of the curatorial staff across the museum. This leads to a much more nomadic culture of large scale movement and a consequent problem with maintaining adequate communications and cultural identity within the department. For education and exhibitions staff work often focuses around projects, such as organising an exhibition, a public lecture series or an event like 'The big draw' in which visitors are encouraged to draw exhibits. Projects are time bound by nature and often require interactions between several departmental groups. In order to organise this kind of event effort must be devoted to arrange meetings (again a time structured and programmatic form of action), and the event itself is almost always scheduled into the calendar with a determinate start and end.

For certain of these dispersed communities such as the conservation staff, the café and arranged tea times allow for the departmental community to be realised and reproduced, but for other groups this appears not to take place in a particularly systematic way. This leads to perceived problems of lack of identity and managerial or communications difficulties within these groups.

Organisational Evolution and Spatial Structure

This analysis raises a series of difficult questions with respect to the likely effects of a spatial structure and its associated culture on the development of the organisation over the longer term. First, it is clear that the local focus and island structure of the curatorial departments has allowed these departments to develop and maintain a strong sense of internal identity, associated with collections, student rooms and public galleries, and spatialised in a relatively well defined way. This territory based identity may be important in attracting and

retaining excellent academic specialist staff, as well as in helping to foster the reputation of the subject specialist groups within the museum amongst their peers in other institutions. It certainly seems that the sense of identity is felt to be important to the staff concerned, however their reputation depends ultimately on the excellence and depth of academic study produced by the departments, each within their respective fields of knowledge, as well as on the collections themselves, their conservation, and the access afforded to students for their study. The live cores, student rooms and libraries seem to help reproduce this sense of identity, but always based on the collections with which they are associated.

073-10

It should be noted that the main comparators for a curatorial department are with their subject specialist peers at different international institutions rather than amongst their colleagues studying different specialisms within their own institution. Thus Egyptology would be compared to Egyptology at the Smithsonian or the Louvre rather than to other collections within the British Museum. Comparison is created partly by the publications of the individual staff concerned, and partly through the experience offered to visiting 'serious' students of the collections who also generate learned publications. This helps explain the importance attributed by curatorial staff to the presence of students and the facilities offered to them. Group identity for curatorial staff is in this sense both supra-institutional and transpatial.

In the longer term however, there are two views on whether the island structure will encourage or discourage interaction and innovation within the institution. It seems possible, on the one hand, that this structure makes it harder for novel interactions between departments to develop and flourish. This difficulty may be balanced to some extent by the presence of the 'nomadic' public facing resource departments such as Marketing, Education and Exhibitions where people, projects and events provide the forum for meeting and exchange. In a different way the activity of conservation, as well as object handling by museum assistants, may serve a similar role. It is certainly true that the programme of lending of objects for international exhibit at other institutions provides an important incentive to conservation work as well as providing an important mechanism for specialist curatorial departments to maintain links to their peers at other institutions. The sense we get is that these mechanisms provide a powerful informal communication network that unifies the organisation, however we have not yet had the opportunity to evaluate this directly, nor to quantify just how strong or weak these informal links may be.

There is however a different interpretation of the possible effects of the island structure on longer term evolution of the organisation and the associated fields of knowledge. This is the view underpinning subsidiarity, under which a strong local identity makes it easier rather than harder for interactions to take place. In organisations where personal or group identity is weakened human behaviours take over to reinforce those identities and these can act as powerful deterrents to collaboration and interaction. This type of effect has been described by organisational psychologists such as Schein in terms of a tendency to retreat from situations where one's identity is perceived as 'at risk'.

In view of the challenge set by the Museum's strategic plan to restructure the way that the Museum is thought about in terms of the stories it can tell about relationships between cultures through linkages between the various collections it is clear that the issues of identity and interrelations are crucial. In the last analysis it is likely that both effects operate together to some degree, and that any proposal to increase the degree of interaction, innovation and the development of new boundaries of knowledge in the organisation should aim to

provide both local foci for the generation and reproduction of group identity and a global unifying structure to allow for interchange between these.

There is a second key component of the organisation. This is the relationship between collections, interpretation, public display and events, and the way these relate to the departments and the back of house. The current arrangement of the building uses vertical circulation cores to bring together curatorial departments with their public displays. This arrangement seems to have two consequences. First, it is the interspersal of public display as well as collections storage into the departmental structure of the whole museum that serves to keep departments apart and so creates the 'sea' within which the islands float. Second, in moving between departments and around the museum the role of interpretation for public display is kept close to the front of the mind. The identification of departments with 'their public' seems possibly to be an important aspect of the museum's culture to enhance. Where this is done successfully public display and interpretation becomes a defining feature for the identity of the curatorial department, and we believe that it is only if this is pursued that it is possible for the museum experience for the visitor to be maintained as a living thing associated with the latest advances in scientific knowledge and understanding.

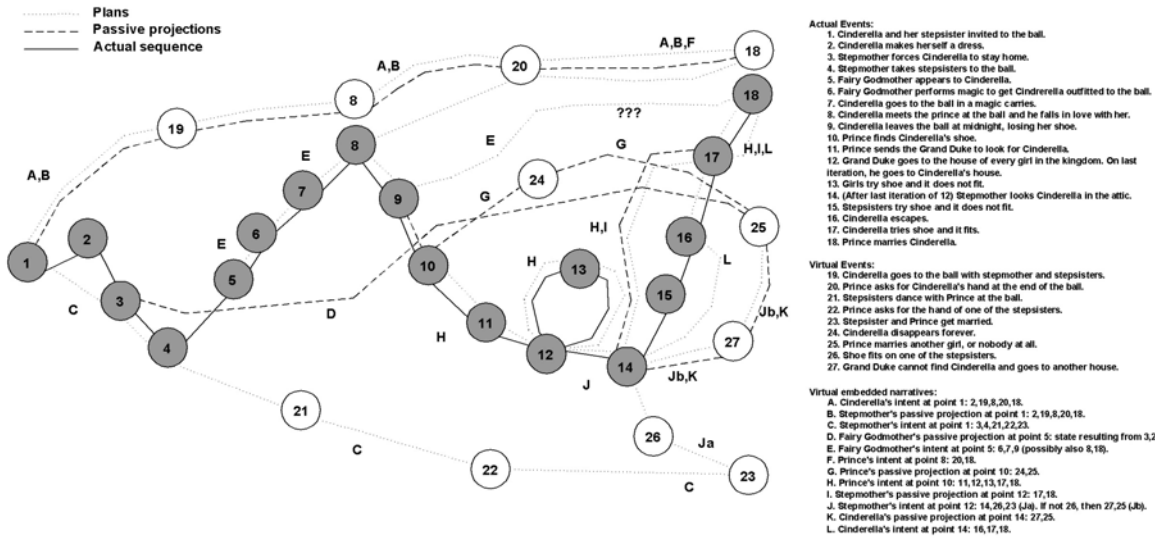**The Public Galleries and the Notion of 'Tellable Space'**

Put at its simplest, for the museum visitor, it is the pattern of publicly accessible space that defines their interaction with the collections. It is the way that pattern of space affords choices for movement that dictates the routes the visitor may take (Hillier & Tzortzi, 2006). It is the way that the collections are laid out and displayed that brings the visitor into contact with objects in a particular sequence (Peponis et al, 2004), and it is the visual field from the point of view of the visitor as this is modulated by the architecture of the building that creates the context of other items against which the visitor's immediate object of attention is set. The visual field changes depending on the location and the direction the visitor is facing, their height, and the presence of other people. Taken together, as a visitor moves through the museum they construct a linear route, engaging with a series of objects in turn. However, the visual fields and views afforded by the spatial layout of the building create a much more complex and overlapping series of contexts within which each object is viewed.

The role of spatial layout and object placement is thus two fold. First, they define and allow the visitor choice in the routes they may take in moving around the building. This choice determines the sequence with which the visitor encounters a series of objects, and so creates a context in the visitor's memory of objects that have already been seen immediately before that which is currently their focus of attention. Second, they define the local and larger scale context, within which any object can be seen, the objects in the immediate vicinity and those visible in the distance along longer lines of sight or on other levels of the building through atria. As a visitor moves through the building, individual objects change from forming the immediate focus of attention, to becoming a part of the local or longer distance context for other objects on display or a part of the visitor's memory. The context within which a particular object may be seen is therefore entirely dependent on where it is seen from, and as a visitor moves that context changes continuously with their viewpoint.

Relevant to this analysis is Marie Laure Ryan's (1991) concept of 'tellable stories'. For Ryan, there is a clear distinction to be made between a 'tellable' and an 'untellable' story. Her key concept is configurational, relying on the propensity of the listener to infer the

073-11

protagonists plans and to construct 'virtual' possible steps or outcomes as a story unfolds, to convert an apparently linear narrative into a complex configuration where new information is played off against imagined possible outcomes (Figure 8). For a story to be tellable it must be structurally rich enough to support elements of uncertainty and surprise on the part of a listener. If a narrative is truly linear with no possibility for the imagination of the listener to provide choice or variation in its path, it is for Ryan 'untellable'.

073-12

Legend:
- .... Plans
- - - - - Passive projections
- ———— Actual sequence

Actual Events:
1. Cinderella and her stepsister invited to the ball.
2. Cinderella makes herself a dress.
3. Stepmother forces Cinderella to stay home.
4. Stepmother takes stepsisters to the ball.
5. Fairy Godmother appears to Cinderella.
6. Fairy Godmother performs magic to get Cindrerella outfitted to the ball.
7. Cinderella goes to the ball in a magic carries.
8. Cinderella meets the prince at the ball and he falls in love with her.
9. Cinderella leaves the ball at midnight, losing her shoe.
10. Prince finds Cinderella's shoe.
11. Prince sends the Grand Duke to look for Cinderella.
12. Grand Duke goes to the house of every girl in the kingdom. On last iteration, he goes to Cinderella's house.
13. Girls try shoe and it does not fit.
14. (After last iteration of 12) Stepmother locks Cinderella in the attic.
15. Stepsisters try shoe and it does not fit.
16. Cinderella escapes.
17. Cinderella tries shoe and it fits.
18. Prince marries Cinderella.

Virtual Events:
19. Cinderella goes to the ball with stepmother and stepsisters.
20. Prince asks for Cinderella's hand at the end of the ball.
21. Stepsisters dance with Prince at the ball.
22. Prince asks for the hand of one of the stepsisters.
23. Stepsister and Prince get married.
24. Cinderella disappears forever.
25. Prince marries another girl, or nobody at all.
26. Shoe fits on one of the stepsisters.
27. Grand Duke cannot find Cinderella and goes to another house.

Virtual embedded narratives:
A. Cinderella's intent at point 1: 2,19,8,20,18.
B. Stepmother's passive projection at point 1: 2,19,8,20,18.
C. Stepmother's intent at point 1: 3,4,21,22,23.
D. Fairy Godmother's passive projection at point 5: state resulting from 3,25.
E. Fairy Godmother's intent at point 5: 6,7,9 (possibly also 8,18).
F. Prince's intent at point 8: 20,18.
G. Prince's passive projection at point 10: 24,25.
H. Prince's intent at point 10: 11,12,13,17,18.
I. Stepmother's passive projection at point 12: 17,18.
J. Stepmother's intent at point 12: 14,26,23 (Ja). If not 26, then 27,25 (Jb).
K. Cinderella's passive projection at point 14: 27,25.
L. Cinderella's intent at point 14: 16,17,18.

Figure 8:

Plot plan for Cinderella from Ryan (1991)

It is this series of possible sequences depending on choice and direction of route, and immediate and long distance contexts provided by the shape of visual fields within the three dimensional architecture of the building, together with the placement, orientation and lighting of objects within those, that define the range of narrative structures which inform the museum visitor's trip. The visitor is continuously engaged in making active choices about where to move next which are at least in part informed by their imagination of the possibilities embodied in any particular choice. The meaning attributed to objects derives from the choices the visitor makes in selecting their route through the building, the way that this affects the sequence and contexts within which objects are seen, as well as the information about those objects given by guides, audio tours, textual explanations, staff and other visitors, all informed by one's prior knowledge.

Although narrative structures often come to mind when we are considering the didactic transmission of knowledge, these are only one form in which collections are understood by visitors. Two other aspects of museum design are also highly significant for the visitor experience: the ambient or environmental experience of the collections as an ensemble in their architectural setting, and the potential for interaction between people afforded by the environment. The ambient experience stems ultimately from the richness and range of experiences offered to the visitor. Differentiation of experience in terms of all aspects of the sensory environment, idiosyncrasy of approach, and the element of surprise probably form the keynote. However, underlying this must be intelligibility if differentiated experience is to become 'meaningful information' rather than just 'noise'. Intelligibility in these terms involves the use of locally perceptible information and cues to indicate where one might move and what one might encounter at the larger scale. Intelligible buildings correlate local to global in such a way that first time visitors can make informed choices about where to move next. This is of course a key component in the construction of the imagined possibilities on which

Ryan's 'tellable stories' depend, and through which 'surprise' is created by suddenly revealing a previously unimagined context.

Almost invariably a visit to the museum forms a part of a social interaction. Visitors come as members of family, friendship or peer groups, and the context of the visit affords an opportunity for interaction of a different kind to the norm. The museum is also a public space in which one may observe and be seen by other visitors. The context legitimates slow movement, stopping and watching, and on occasion interactions between strangers. The circulation structures and choice of available routes leads to one meeting the same people repeatedly, but apparently fortuitously, in different spaces during a visit. In this way the museum creates a virtual community of potential interaction amongst its visitor population, while the whole context provides an element of selection of those with a shared interest in the specific collections being viewed.

073-13

Ultimately, a visitor's experience of the museum depends upon the way that these three elements – didactic narratives, the ambient experience of the wealth of a collection including the richness of its architectural exposition, and the opportunities for social interaction afforded by the environment – are brought together by the structure of the publicly accessible space. These map onto both scientific and social knowledge domains. They appeal perhaps to the intellectual, corporeal or sensual, and social aspects of our experience, and an institution of the scale of the British Museum has both the opportunity and need to handle all three. In the last analysis perceptions of its value as a public institution depend on the degree to which visitors are satisfied by their visit.

An analysis following Basil Bernstein (1977) would suggest that while the curatorial staff are arbiters of the degree and mode of classification of knowledge, the exhibition and education staff are arbiters of its degree of framing through programmes of temporary exhibitions and events. As we have noted above however, the museum experience for the visitor is only partly defined by these intellectual or educational goals. Equally important are social and aesthetic or emotional goals which surround the ambient experience of museum space and the context it provides for social interaction. Whilst for the curatorial staff the definition of scientific knowledge to be transmitted to the visitor may be the main motivation, for the education and exhibitions departments visitor satisfaction requires a more holistic assessment of the museum experience in the round. The difference in the thrust of beliefs appears to define the core values of the two groups. When taken together with the overt differences in spatialisation of workspace, relations to the artefacts in collections and spatial behaviours in terms of the 'nomadic' movements and event driven work of the latter and the more 'agrarian' and spatially grounded behaviours of the former, we believe that this presents strong evidence for two distinct organisational cultures. These span Rousseau's axis from shared beliefs and values to overt behaviours and artefacts (op cit p158) as well as occupying distinct positions in the formal organisational structure and the space of the building.

Structure, Agency and the Problem of Method

The literature on organisational culture has usually classed examples of multiple cultures within organisations either in terms of 'ambiguity' (Alvesson, 1993; Myerson & Martin, 1987; Martin, 1992) or as merely 'fragmented' (DiMaggio, 1997). Here we suspect that there is something more consistent going on. The differences in culture are anything but ambiguous – they are overt at both the level of behaviours and at the level of beliefs, values and norms. Similarly, they appear to be part of an organic division of labour which has

073-14

emerged in response to quite specific and conflicting demands placed upon the organisation: the generation of scientific knowledge related to the study of the collections, and the translation of this into social knowledge for public consumption within a changing political, economic and social context. Many organisations are faced with conflicting demands, and this example suggests a generic organisational solution type in which different groups emerge which through differential relations to space achieve radically different cultural forms. These allow the groups to pursue different shared goals through different accepted norms, and yet to develop and evolve over time in a relatively stable, almost symbiotic way. How might this be possible? We need a formulation of organisational behaviour in which evolution of differential cultures amongst different groups are not merely variants on a theme, but appear to be radically different one to another. Both organisational structure and cultures appear to evolve and emerge. Faced with the observed differences between groups it is hard not to see them as real phenomena, and yet it is also hard to explain these differences solely on the basis of differences at the level of the individuals concerned (although there are undoubtedly differences in educational background and individual motivation, for example, between groups). This brings us directly up against a longstanding problem in sociology.

Sociology abounds in methodological problems. Many of these turn around how one can study systems of which one is a part; how this matters especially if the component parts of that system are aware and conscious; and how this is exacerbated when these parts are not only aware, but are aware of and influenced by the social theories one produces. In this sense social systems are said to be doubly hermeneutic – they are characterised by two layers of interpretation. Against this background run a series of fears: the fear of dualisms – of creating false separations for methodological expediency; the fear of the epistemic fallacy – of confusing ones knowledge of something for the thing itself; and of reification – of granting objective status to structures that do not in fact exist. These give rise to a debate over sociological method which turns on the ontological status to be granted to various layers or strata in the conceptualisation of social forms and processes. The major debate rests on the attractions of theories which conflate strata (such as Giddens (1984) theory of structuration or Bordieu's (1977) habitus) and so avoid their reification, and those which propose that, analytically at least, the strata must be granted ontological status for two reasons. First, without separation of strata emergence over time is impossible, since it is only through feedback from one stratum to another that evolution can take place. Second, that without separation into analytically differentiated layers the whole project of sociological study becomes impossible, since the ability to account for emergence and development over time depends upon the objective nature of the component parts of the systems concerned. A comprehensive review of this debate with regard to organisation theory is given by Willmott, (1997) (but see also Giddens' (1993) riposte to this line of criticism in the introduction to the second edition of New Rules of Sociological Method).

It is against the background of this debate that we might now propose the spatial configuration of the organisational environment plays a critical role, currently missing in mainstream sociological theory (although clearly this forms the basis of all work in the space syntax field). We suggest here that, much as the ontological status of the person in agency seems obvious, the reality of the spatial environment in which agents are embedded is also clear. There are therefore at least two ontologically differentiated strata with which to work. The reality and causal bite of the other strata (relational

structures, rule systems, norms, conventions and beliefs, resources, roles etc.) are now relieved of much of their problematic status since these could in principle be held to emerge through the feedback processes between the two overt strata involved in the daily lives of mobile and perceptually aware individuals as they move around their environment in response to the programmatic (time structured) demands of their specific roles. The possibility that the 'agrarian' and 'nomadic' cultures that characterise the producers of scientific and social knowledge respectively, can both be realised within and reproduced by a single building, in a way that is stable over time and provides a complementary 'organic' functional whole, is enticing.

Conflicting demands are far from rare, and perhaps characterise the predominant environment for most organisations. The pursuit of a single 'ideal' organisational form, as embodied in a single and commonly accepted culture, is therefore problematic and we would propose, likely to fail. We conclude that the debate in sociology and organisation theory regarding the separability of structure from agency in organisational culture may be resolved by including the spatial environment as an active stratum in our theoretical framework. In this way individual agents and buildings interact and feedback on one another to produce emergent cultural structures, at the same time allowing the coexistence of multiple cultures which underpin an organisation's capacity to respond to conflicting demands.

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073-16