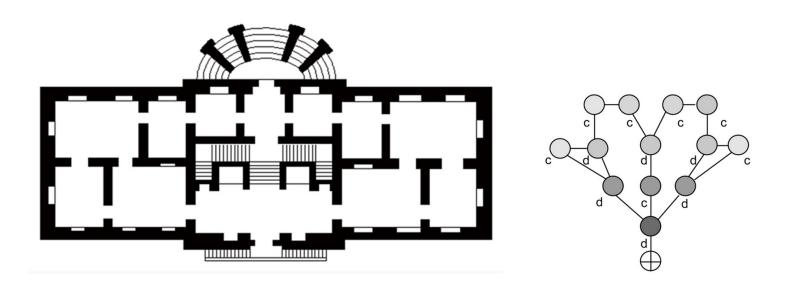
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In recent years, museums have have increasingly explored a style of display that emphasises the visitors' multisensory experience of exhibits, as much as their cognitive understanding. At the same time, there has been growing acknowledgement of the significance of the intangible aspects of heritage as dimensions to be understood and nurtured. Against this background, the display of exhibits related to performing arts and the presentations of their ephemeral and intangible aspects in museums become particularly intriguing. This paper seeks to explore the different ways in which performing arts collections are displayed, and how they are affected by, and affect, the spatial and architectural properties of the museum settings. Using the space syntax analysis of *space types* in association with the framework from the Francophone museological literature of the exhibition as a medium, and of the exhibition space as a 'synthetic space' (*espace synthétique*), we will analyse six museum settings that have clear spatial and architectural intentions with respect to performing arts collections. Their comparative analysis will bring to the surface intriguing common tendencies which relate both to the organisation of the display and to the nature of the spaces in which it is realised. These commonalities, it is suggested, can be thought of as outlining a generic *spatial culture* through which it is possible to create, in the museum, dimensions of the circumstances in which performances are realised, transmitting some of the living richness of their experience.

Keywords: spatial culture, museum space, space types, parataxis, experience

Introduction

In recent years, museums have increasingly explored experiential approaches – that is, a style of display that emphasises the visitors' multisensory experience of exhibits, as much as their cognitive understanding. At the same time, there has been growing acknowledgement of the significance of the intangible aspects of heritage, such as ritual and music, as dimensions to be understood and nurtured. Against this background, the display of exhibits relating to the performing arts in museums becomes particularly intriguing. The performing arts cover events such as theatre, dance, music, opera, musical theatre, pantomime, puppetry, shadow theatre, and circus (Marini, 2009). They are characterised not only by diversity, as reflected in the wide range of museums that accommodate collections, often setting distinctive spatial and display requirements, but, more significantly perhaps, by the challenge of how to display, over and above the tangible reality of objects, the ephemeral and intangible aspects that are associated with live performance. This paper sets out from preliminary observations that spatial factors often seem to play a role in how museums seek to address this challenge. In exploration of this possibility, the paper will examine museum presentations of performing arts collections, with special emphasis on space, looking

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at the different ways in which they are displayed, and how they are affected by, and affect, the spatial and architectural properties of the museum settings. It will address three fundamental questions. How does the museum building as space, and so as a 'stage set' (Basso Peressut, 2014, p.159) for displays, affect the way performing arts collections are offered for experience? Can space play a role in transmitting *intangible* as well as tangible aspects? Can a generic *spatial culture*, composed of both spatial and museological elements, for exhibiting performing arts collections in museums be identified?

The paper will first review the issue of the museum presentation of performing arts collections as found in the literature. It will then focus on the concept from Francophone museological literature of the exhibition as a medium, and the creation of meaning through the 'synthetic space' (espace synthétique) - that is, a pattern with both spatial and display components. Against this background, the paper will analyse six museum settings as case studies which have clear spatial and architectural intentions with respect to performing arts collections - in these cases musical instruments and puppets - and illustrate different display contexts: designed museums where the architecture of the building aims to contribute to the meaning of the content, and converted buildings where a tension is created between the original building and the display; and museums with displays specially devoted to performing arts collections, as well as cases where these complement a wider museum narrative.

The case studies are the Musikmuseum, Basel, a dedicated collection of musical instruments in a converted building; the Musée des civilisations de l'Europe et de la Méditerranée (MuCEM), Marseille, an ethnographic museum in a historic building complex, with a Mediterranean-European cultural perspective into which French folk art, mainly related to 'popular spectacles' is integrated; the Musée du quai Branly, Paris, an ethnographic museum, with innovative, specially created spaces for the display of performing arts collections and musical instruments; the Musée de la musique, Paris, a museum dedicated to the display of musical instruments, where the architecture of the building aims to contribute to the meaning of the content; the Museum aan de Stroom (MAS), Antwerp, a city museum in which the display of performing arts collections complements the museum narrative about the city; and the Ashmolean Museum, the museum of art and archeology of the University of Oxford, with a spatial design closely linked to the display theme of cultural connectivity, into which the collection of rare musical instruments, while remaining a distinct category, is integrated.

Comparative analysis of the case studies, using the fundamental space syntax concept of space types (see below for definitions) in the context of museological ideas for the analysis of experience, will bring to the surface intriguing common tendencies which relate both to the organisation of the display and the nature of the spaces in which it is realised - that is, to the espaces synthétiques of the cases. It should be noted here that we focus on the overall conceptual arrangement of objects and the structure of the museums at the global level, and do not discuss exhaustively the ordering of exhibits within spaces, their relation to the accompanying interpretative material, or other properties of individual spaces, although these can also be rich in information. Even so, it is suggested that the commonalities we find at the global level can be thought of as outlining a generic spatial culture, through which it is possible to create, in the museum, dimensions of the circumstances in which performances are realised, transmitting some of the living richness of their experience.

Theoretical framework

The issue of display of the performing arts collections in museums

It is repeatedly emphasised in the literature that the transient nature of the performing arts experience as an artistic phenomenon, and the complex and dynamic character of the information created by or related to them, are the key challenges in the presentation of performing arts collections in museums. Marini argues that 'a live performance or production is never the same and it can never be captured in its entirety' (Marini, 2009), as it is 'confined to the present moment'. As Grandjean (1997, p.7) notes 'when one stops to think about it, a museum for the performer's art is an absurdity. For what a theatre museum is actually seeking to document [...] disappears every evening when the curtain falls'. The tangible objects, the traces that a performance leaves behind are secondary to the intangible dimension' (Balk, 2003, p.6); they are 'only the most basic ingredients' of an event (Demski, 2003, p.7).

No less than the fugitive character of the performing arts experience, a key challenge for musical instruments collections is the 'intangible world of sounds and music' (Birley, 2004, p.1): musical instruments in museums should be enjoyed for their aesthetic qualities as well as for their musical qualities (Gahtan, 2014, p.197). So the question 'how to capture the essence of spectacle' becomes here 'how to expose sound'. However, it is taken into account that the museum provides a musical experience of a different kind since 'it presents music in another timeframe and stresses its cultural context: one experiences music through artefacts' (de Vissher, 2014, p.240), the physical object with the immaterial content. As de Vissher argues, the presence of music can affect visitors' perception of spaces, architecture and objects.

These fundamental issues are increasingly explored both from a general point of view, in the context of international conferences - for example, the 2008 SIBMAS Conference (see Leclercq, Rossion, and Jones, 2010), the 2002 Journées d'Étude de la Société Française d'Ethnomusicologie (see Gétreau and Aubert, 2002), the 2014 International Conference on 'Music in Museums'; and in relation to specific fields of performing arts - for example, the marionettes (see Dufrêne et Huthwohl, 2014) and the theatre (Rezzouk, 2013) - and in specific cases of museums - for example, Horniman Museum, London, and the Musée du quai Branly and the Musée de la musique, two of the case studies of this paper. Alternative ways of featuring the intangible aspects in the museum display are discussed, from the integration of technological means into the display (for example, for the representations of performance) to real concerts and live performances, as well as the parallel organisation of temporary exhibitions which explore different ways of featuring music and performance.

These challenges set the general framework for this paper and inform the analysis of the case studies. However, this literature, though rich in theoretical background, makes only the most general references to space. The theoretical framework of relevance to the research aims of this paper, and more spatially oriented, is the concept of the 'exhibition as a medium' proposed by Davallon (1999; 2003), and more specifically the idea that spatially the museum is an ensemble and that space is a key element in its communication strategy.

The exhibition as a medium

Starting from the idea that an exhibition is not originally created to say something but to show things, Davallon sees the exhibition as a medium but with specificities that differentiate it from other media, in

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the sense that it is more 'situational' than 'instrumental' (2003, p.28). Comparing the exhibition with the book, he argues that the exhibition would be like a book where the 'signification', instead of deriving from the linguistic text, would essentially derive from the size of the book, its formal and material features, its layout (mis en page) and its 'composition' - so essentially from its media (médiatique) properties. In the exhibition, the 'signification' is intrinsically dependent on the spatialisation (*mise en espace*) and staging (mise en scène) as an arrangement (agencement) of things, in order to make them accessible to visiting social subjects (sujets sociaux) (2003, p.28). As Chaumier (2012, p.23) adds, the exhibition has some degree of autonomy from the objects in the sense that, by bringing them together, it creates something that is more than the sum of its parts.

This relates to Davallon's definition of the exhibition as a shift from knowledge to visit, with three stages: the logic of the discourse, which corresponds to the preparation of the exhibition; the logic of the visual and spatial, corresponding to its production; and the logic of the gestuary (gestuelle), corresponding to the visit. He is particularly concerned with the role of space because it creates 'effects of meaning' (1999, loc.1149) by bringing things together. As he argues, the exhibition is not a meaningful construction based on pre-existing semiotics (sémiotique), like a book, but is a semiotization of space (sémiotisation de l'espace), as on a theatrical stage: the space is constructed so as to become a 'sign' which produces meaning by the simple fact that it 'represents' (met en scène) a presentation of elements.

It is this that leads Davallon to describe the exhibition space as an *espace synthétique* – both in the sense of a space which brings elements together and that of an artificial space (1999, loc.2539) created by the author of the exhibition to lead the visitor to physically participate in the

functioning of the exhibition. Through the design of space (for example, the construction of views, the alternation of different scales of space, and the creation of the spatial rhythm of the visit) and the intelligibility of its organisation (1999, loc.2582), the *espace synthétique* guides – or rather 'takes care of' – the visitor. But if the authors of the exhibition propose a 'discourse' in this sense, it is only the visitors themselves that structure the narration, and eventually compose a story (*récit*) (1999, loc.2749; Chaumier, 2012, p.27).

It becomes then clearer how the exhibition can be paralleled to the theatre. As the theatre shows us how to imagine the ways of being and talking, the gestures, the environment, and the relations of the personages of a play, which we could alternatively read, the exhibition shows us how to imagine the world of objects, which we could also see without this. In other words, the exhibition proposes a mode of encounter and interpretation (Davallon, 1999, loc.2720), and it is through the exhibition and its *espace synthétique* that the visitor has access to the objects.

Here we suggest that the concept of espace synthétique can play a useful role in space syntax, and at the same time be clarified technically. As noted, an espace synthétique is a structure linking space and exhibits in a characteristic pattern which transmits meaning. Space syntax has analyses that allow us to assign numbers to spaces which express the relation of each space to others, but does not yet offer the means to characterise the different kinds of meaningful pattern they can create. A syntactic technique which can help clarify such structures is that of space types. We will use these to characterise the espaces synthétiques in museums, and propose that what they have in common may be dimensions of an emerging spatial culture for the display of performing arts collections in museums. But first we must describe our case studies.

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Description of case studies

Musikmuseum, Basel

The Musikmuseum in Basel is part of the Historisches Museum Basel and of a building complex, with different uses, whose oldest elements date back to an eleventh century monastery. The museum building, converted by the Morger and Degalo Architekten (1996-2000), retains the outer shell of the monastery and the spatial structure of the prison (1835-1995), with the latter serving the thematic arrangement of a collection of musical instruments, dating from the fifteenth to the twentieth century. The display is arranged on three floors, with the ground floor dedicated to 'Music in Basel', and the first and the second floors to European musical instruments, under the themes of 'Concerts, Choral and Dance' and 'Parade, Marches and Signals' - so more cultural and more military themes respectively. Each theme is structured by display units in the individual rooms that were once cells, and are devoted to a sub-theme (for example, music for hunting) or a type of instrument (for example, the saxophone). Rooms are darkened, allowing instruments to be highlighted as aesthetic objects, and are open to the main space in which musical instruments of a larger scale are placed [Figure 1a]. The views to the main space are carefully constructed to create intriguing visual juxtapositions [Figure 1b], for example between musical instruments of similar form or type, or between instruments and their depiction in paintings.

The musical instruments displayed in the rooms are also related to objects that contribute to their setting in context; for example, masks and carnival accessories accompanying the display of drums in the 'Fifes and Drums' room. However, in addition to creating strong visual images and presenting musical instruments as visual objects, the rooms create 'soundspaces' (Kirnbauer, 2009, p.36). Through a touch screen in each room that provides information about and beyond the exhibits, visitors can select, and experience in the space, musical pieces related to the instruments on display. This experience of a mixture of linked sights and sounds that fill the space is further enhanced by the enclosed character and scale of the rooms.

Musée des civilisations de l'Europe et de la Méditerranée (MuCEM), Marseille

As in the case of the Musikmuseum, in the MuCEM, Marseille, a tension is created between the original building and the display. The performing arts collections, of the previous Musée national des Arts et Traditions Populaires (MNATP), Paris, are housed in the seventeenth century fort Saint-Jean, at the entrance of the old port of Marseille, an emblematic location for the cultural, demographic and trade contacts between Europe and the Mediterranean. The fort





Figure 1

Musikmuseum, Basel: (a) main space onto which the rooms open; (b) view from a room to the main space.

Photo: Kali Tzortzi, courtesy of © Historisches Museum Basel

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functioned as a military complex, closely related to the history of the city, to which it is linked through a footbridge. Through a second, longer footbridge over the sea, creating a continuous urban route, it is connected to the new building of the museum, designed by Rudy Riccioti and dedicated to exhibitions about Mediterranean and European culture.

The display at fort Saint-Jean is devoted to the idea of 'Leisure Time' (*Le temps des Loisirs*), as developed in nineteenth century France, reflecting the shift from rural to industrialised urban society, and the emergence of 'popular spectacles' such as the circus and the puppet theatre. The curatorial intention was to create a sense of wonder (*émerveillement*) about folk art rather than inform (Gourarier, 2013a, p.27), and to communicate the nature of 'spectacles' that characterise the collections through the display. The collections are shown in small and in some cases darkened spaces, sometimes accompanied by images and sounds, creating elements of unexpectedness and surprise, and so a playful atmosphere.

In particular, a complex of small-scale spaces known as the 'village' is dedicated to the rich collection – the largest in Europe – of puppets in the museum. The puppets are shown in thematic groups, each theme in one room, and all the displays are designed (by Zette Cazalas/Zen+dCo) to be different to each other: in one, the décor of the display case evokes the perspective of a puppet theatre with its scene and backstage; in another, dedicated to a famous category of glove puppets, the 'Guignol', these hang in series as in a storeroom [Figure 2a]; whilst in a bigger display, occupying a space seen through windows and creating a sense of depth, 60 marionettes are gathered together and positioned as if in dialogue with each other [Figure 2b]. The common feature in their otherwise different arrangements is that the cases devoted to the puppets occupy whole walls or small rooms, usually taking up the largest part of the space, and use unobtrusive platforms so that objects seem to be hanging and are presented at eye level. Different 'personages' seem randomly arranged without symmetry, in a more or less dense arrangement, creating visually unexpected compositions.

Throughout the fort Saint-Jean, the diversity of the display design, the emphasis on aesthetic effect, and the visual impact of the whole rather than the single object, all contribute to creating the intended sense of *émerveillement*. In parallel, the arrangement of the collection in different buildings

Figure 2

Musée des civilisations de l'Europe et de la Méditerranée (MuCEM), Marseille: (a) the display of glove puppets as in a storeroom; (b) of marionettes arranged so as to be seen through windows.

Photo: Kali Tzortzi, courtesy of © Zen+dCo





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and in autonomous spaces, without sequential order or obligatory passage, means that visitors are encouraged to explore displays as 'attractions', shaping their own itineraries (Gourarier, 2013a, p.29; Gourarier, 2013b, p.51) that alternate open and closed spaces.

Musée du quai Branly, Paris

The Musée du quai Branly, opening in 2006, was designed by Jean Nouvel to house the ethnographic collections of the Musée des arts d'Afrique et d'Océanie and of (the Laboratoire d'ethnologie of) the Musée de l'Homme. A glass partition and a garden separate the museum from the city, whilst inside, a long ramp mediates between the entrance and the open plan exhibition space, the *plateau des collections*. The *plateau* brings together works and objects from Africa, Asia, Oceania and the Americas that are organised globally by geographical area; whilst locally within each area, different display approaches – both thematic and geographic – co-exist in parallel. In complete contrast to the openness of the *plateau*, the small-scale enclosed spaces, created by the multicoloured 'boxes' (*boîtes*) on the façade of the building [Figure 3], allow a focus on particular themes.



Courtesy © musée du quai Branly, photo: Roland Halbe





Figure 4

Musée du quai Branly, Paris: (a) the *boîte* à *musique* and (b) the display devoted to the shadow theatre (khayâl al-dhill).

Photo: Kali Tzortzi, courtesy of © musée du quai Branly

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Amongst the museum collections, the rich collection of musical instruments is given special emphasis and is presented in different locations and via different strategies. The first encounter - at the entrance of the main building – is created by means of a circular glass tower that traverses its whole height, constituting a kind of 'visible storage' of the collection. Over a hundred musical instruments are then shown in the open plan exhibition space. A more immersive experience is proposed by the two (now one) boîtes à musique, the closed spaces of multicoloured 'boxes' specially dedicated to the display of dance and music [Figure 4a]. Devoid of objects, these spaces focus on the hearing of music in combination with the projection of 'immersive' images (covering the walls), which link music to dance, for example the processional music of Nepal. Overall, the visitor moves from a presentation of scientifically classified instruments in the glass tower, to a 'discourse beyond music' (Leclair, 2007, p.35) in the unified space of the plateau des col*lections*, where musical instruments are integrated into the geographic itineraries of different cultures; and this, in turn, is combined with the experience of music in the more secluded spaces, aiming to create a more affective relation (Cahen et al., 2006). Even in the *plateau*, the grouping and alignment of the mainly transparent display cases orders the open space by creating continuous axes and paths between them or along their sides, or by articulating smaller, enclosed spaces which focus on a theme. Two indicative cases of the 'created' spaces are displays in wall cases of the shadow theatre of India and of Egypt, Syria and Turkey [Figure 4b].

Musée de la musique, Paris

The Musée de la musique, Paris, designed by Christian de Portzamparc, opened in 1997 as part of the Cité de la musique (now Philarmonie 2) and its permanent display was renovated in 2009. The triangle-like form of the Cité de la musique is, according to the architect, a style of architecture that 'meets the music experience' in the sense that it emphasises 'the experience of the movement, of its length, of its sequences, of its ruptures and of its discoveries' (Rochefort, 1996, p.27).

In addition to musical instruments, the collection includes paintings, sculptures and furniture, and is displayed on five levels. The first four are organised in a historical narrative punctuated by nine 'key moments' in the history of western music. Each level covers a century with its own significance: the seventeenth century, the birth of the opera; the eighteenth century, the music of the Enlightenment; the nineteenth century, Romantic Europe; and the twentieth century, 'On the move'. The last floor, dedicated to world music, is arranged in geographical areas. The aim of the display is both to present musical instruments as technical products and to provide contextualisation by setting them in a wider cultural framework - an intention enhanced by the recent addition of audiovisual material into the museum itinerary, which makes connections between history and musical inventions and between the evolution of instruments and musical styles.

In terms of spatial organisation, each of the four historical levels takes a similar dual form. On the one hand, there is a dominant linear space passing through the whole floor and serving as a clear path for visitors to follow; and on the other, a series of more enclosed spaces, created predominantly on one side of the linear space, either by the way the shape of the building forms partially closed internal spaces, or by the arrangement of display cases [Figure 5a]. In spite of their visibility from the main path, these spaces create a sense of separation and closure, suggesting stillness and occupation rather than movement.

These spatial differences are related to differences in the display. The linear space carries the dominant historical narrative of the evolution of instruments. The more enclosed spaces, in con-

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trast, tend to be used in two different ways. First, for aesthetic groupings of instruments, such as the clavecins (harpsichords) on the seventeenth century floor or the pianos on the eighteenth; and, second, as locations where the visitor can experience the 'key moments' of musical history (for example, Monteverdi's Orfeo in the Mantua ducal palace as the 'first opera', Berlioz's Symphonie fantastique at the Paris Conservatoire, or Wagner's Der Ring des Nibelungen at the Bayreuth Festspielhaus) through complexes of different kinds of information: through architectural models of spaces where the music was performed, screens with audiovisual material and of course the music, and a display case entirely devoted to the instruments used, often accompanied with portraits of composers. So these spaces, which lie off the main path (with one exception - see Figure 5b), offer intensification of experience by giving the visitor a sense of the living reality of the occasion, whilst being associated in parallel with the communication of the narrative.

Museum aan de Stroom, Antwerp

The Museum aan de Stroom was created in 2011 by the Neutelings-Riedijk Architects, in an old warehouse area of the port of Antwerp. The museum was established by bringing together the collections of three former museums of Antwerp (Ethnographic, Folk, Maritime) along with an art collection, and organising them under themes such as 'Metropolis' and 'World Port'. The intention was to give an innovative account of how Antwerp is connected to the world, as a meeting place and a place of exchange.

The collections are shown in large unified and darkened spaces, one on each floor, which have been described as 'black box' rooms (Montanari, 2013, p.498) because of their visual and spatial closure to the outside and lack of connections to each other. Apart from a single entrance, they are separated from the circulation spaces which are organised in a continuous route from the entrance to the top (tenth) floor of the building, the so-called MAS boulevard, and are characterised by the opposite features: they are transparent and light, and offer visitors successive views of the city, as each floor is rotated by 'a quarter turn'. These are then synthesised into a panoramic view of Antwerp at the top floor - the end point of this 'vertical city tour' (Beyers, 2011, p.197).

In contrast to the previous cases we have discussed, a distinctive feature of the MAS is that performing arts collections are integrated into the museum narrative about the city and the different aspects of its long history. A clear example of this is the collection of puppets [Figure 6a], shown in the 'Metropolis' display (May 2011 – May 2016) to illustrate the strong tradition of puppet theatre in Antwerp in the nineteenth century, which is still alive





Figure 5

Musée de la musique, Paris: (a) the main path on the first level and the key moment of *Orfeo* by C. Monteverdi; and (b) the centrally placed key 'moment' of *Alceste* by J.B. Lully, emphasised by the maquette of the Château de Versailles in the middle of the space, in contrast to the other localised 'moments'.

Photo: Kali Tzortzi, courtesy of © Musée de la musique

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today. Intermingled with a heterogeneous array of objects – the heads of mythological giants used in festive processions, a sixteenth-century map of Antwerp, seventeenth-century paintings representing city views, an aquarelle commissioned for the 1913 Expo, and a full-scale luxury automobile, produced by a famous local company [Figure 6b] – they are all presented as part of the city's living richness and so are part of what the museum shows the visitor, the city itself.

Ashmolean Museum, Oxford

The Ashmolean Museum of Art and Archaeology, University of Oxford, was extended in 2009, by Rick Mather Architects, this development being seen as an opportunity to explore a new display approach under the theme of 'Crossing Cultures, Crossing Time'. The intention was to emphasise influences and links between cultures that 'stretch from Europe in the West through the Near East and Asia to the Far East, from ancient times until the present day' (Ashmolean, 2009, p.25), and show that they share a connected history 'developed as part of an interrelated world culture, rather than in isolation' (Ashmolean Museum, 2011). This new thematic approach is powerfully expressed through the layout of the five floors of galleries in the new building, consisting (unlike the previous cases) of sequences

of rooms but characterised by additional interlinking through glass walkways, bridges, internal windows and double-sided glass displays.

The collection of stringed instruments constitutes a discrete part of the museum's collections, but includes some of the world most famous musical instruments, including the 'Messiah' by Antonius Stradivari. The collection was founded on a group of instruments given to the museum by the firm of W.E. Hill & Sons in 1939 (the Arthur and Alfred Hill Collection), which has later been increased by further bequests and gifts. Interestingly, one concern behind the original donation was to set them aside in a museum where they would be protected from further harm by being played.

In the new display, the collection is presented in the 'Music and Tapestry' gallery. Whilst it has visual and spatial connections with neighbouring galleries, the idea of cultural connectivity is here more clearly expressed within the limits of the specific display. Following the principle of telling stories about objects 'through comparisons and connections, tracing the journey of ideas and influences through the centuries and across continents' (Ashmolean Museum, 2011), the pernambuco wood of a violin bow is said to reflect the connections between Europe and Brazil through the Portuguese merchants. Musical instruments are shown in glass cases,

Figure 6

Museum aan de Stroom (MAS), Antwerp: the 'Metropolis' display (May 2011-May 2016) with (a) the puppets illustrating, together with landscape paintings of Antwerp, and (b) the luxury automobile, the city's living richness.

Photo: Kali Tzortzi, courtesy of © Museum aan de Stroom





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internally lit so as to illuminate small details, while a recent ('point and play') system allows the sound of such instruments to be heard. More interestingly, their display is accompanied by tapestries hanging on the gallery walls, not only for their thematic links by showing examples of the instruments in action, but also for their allusion to the setting of a music room, where the use of tapestries for visual display also modified the acoustic properties of the room by reducing unwanted reverberation (Howard, 2012) [Figure 7].

Comparative discussion

A theatrical 'espace synthétique'

Is there any sense then in which the performing arts shape a particular kind of *espace synthétique* in museums? At first sight it seems unlikely. Although we might suggest a broad differentiation between the room-like structures (represented by the Musikmuseum, the MuCEM, and the Ashmolean) and the more open plan type of layout (illustrated by the Branly, the Musée de la musique, and the MAS), the spatial layouts of the museums seem, in terms of their detailed organisation, to be as differentiated as the buildings in which they occur. However, if we follow Brawne (1982) and make a distinction between the topology (basic relations) of space and its geometry, some intriguing patterns begin to appear. Key topological properties of spaces are captured by the space syntax theory of space types, which defines spaces in terms of how they are connected to the layout of which they form part. As can be seen in Figure 8, a-spaces are dead-ends, so cannot be passed through; b-spaces control access to a-spaces (or other b-spaces) and so offer only the same way back having left the space; cspaces form rings, so offer one alternative way back; while *d-spaces* offer more than one alternative way back, so present route choices. Figure 9 shows the developmental nature of the space types: what an



Figure 7

Ashmolean Museum, University of Oxford: the 'Music and Tapestry' gallery. Courtesy of © Ashmolean Museum, University of Oxford Comparative discussion A theatrical 'espace synthétique' J O S S From exhibits to spatial culture: An exploration of performing arts collections in museums

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¹ Syntactic literature has addressed extensively museum layouts and their significance for the communication of knowledge and narrative, as for example in the seminal paper on the 'Layout of Theories in the Natural History Museum' by Peponis and Hedin (1982). Of particular interest is also the discussion about the nature of spaces and the social aspects of the experience seen from the point of view of the 'socialization of people into knowledge' (p.25).

Figure 8

Examples of all four space types.

Figure 9

Relations of space types, showing what each adds to the last.

Figure 10

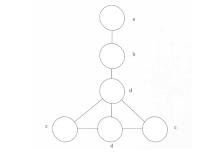
Characteristic forms generated by the repetition of each space type.

Figure 11

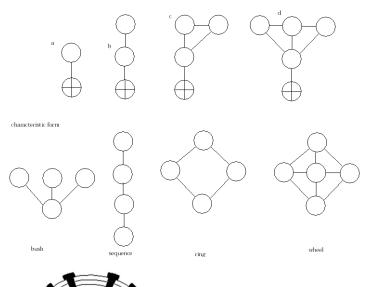
The plan for a museum designed by L.C. Sturm in 1704 and its justified graph.

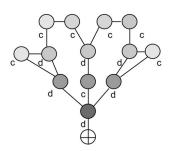
a-space adds to the 'carrier', or 'root' space; what a *b*-adds to an *a-space*; a *c*-to a *b-space*; and a *d*-to a *c-space*. Figure 10 shows a characteristic spatial form generated by the repetition of each type. It has been argued (Hillier and Tzortzi, 2006) that most art museums use c-spaces to form sequential rings, with a certain proportion of d-spaces to create route

choices, while a- and b-spaces are comparatively rare (although not unknown), as both imply returning to the same spaces.¹ Figure 11 shows the graph of the plan for a museum designed by L.C. Sturm in 1704, the first design for a museum, a fairly typical layout made up of c- and d-spaces (so we might call it a CD structure).



definitions: what each adds to the last: what a adds to the root, what b adds to a, what c adds to b, and what d adds to c





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In our case studies, we can see that the Musikmuseum is made up of a-spaces open to a b-space (the cells and the corridor). A similar kind of topological pattern can be seen in the case of the MAS, although it has a very different scale, geometry and architectural concept. The open plan 'black box' on each floor is an a-space, linked to the b-space of the 'boulevard'. In the Branly, the *boîtes* created by the shape of the building and linked to the itineraries through the geographical areas, again generate a similar pattern of a-spaces in a b-type relation with local pathways, although in this case these also form part of a more complex global layout. To a lesser degree in the Musée de la musique, the shape of the building, in combination with the display, also creates partially closed spaces which read and work as convex a-spaces, linked on each floor to a more linear b-space defining the main route. In the MuCEM, the layout of the 'village' with the display of the marionettes is again made up entirely of aand b-spaces, forming a sequence. In complete contrast, the Ashmolean represents the more common CD form: the second floor, for example, where the collection of musical instruments is found, is made up of 19 c- and d-spaces, 3 a-spaces and no b-spaces. Therefore, a striking property of five of our case studies is the high number of a-spaces each has - from fully enclosed a-spaces with an entrance to functional approximations of a-spaces by partial boundaries - linked by local b-spaces. We might describe them as essentially AB structures, in notable contrast to the CD structure found more often in the spatial design of museums.

There is an additional dimension in which our case studies can be contrasted to both the layout of the nineteenth century museum with its long axes linking sequences of spaces and offering visitors powerful vistas, and to contemporary museums that exploit views between and across spaces and set displays in intersecting visual fields. Here gallery spaces tend to take the form of separated rooms or independently experienced parts, and are either visually secluded (for example, Musikmuseum, MuCEM, Branly) or characterised by local visibility (for example, Musée de la musique, MAS). The limited views from one space to another contribute to a localised and static conception of space, rather than emphasising a dynamic sense by opening up views and distracting attention to another space, or another destination. In our sample, the convex structure (two-dimensional) is more important than the axial (linear), and visibility is not much more extensive than accessibility, so does not offer a visual substitute for movement. One has to visit and experience the spaces.

It is also of interest to observe that all five AB layouts form a complex of syntactically homogeneous spaces, which lack the hierarchical organisation that is often used to reflect some kind of theoretical view, for example with well known works being placed in the more integrated spaces.² In our sample it seems that the global structure is simplified, perhaps so as to foreground and intensify the local experiences. One has direct access to the spaces of the performing arts collections from the main path, and in general the relations of spaces and path are direct. At the same time, it is in the nature of a-spaces to create discontinuities in their consecutive experience, in that it is necessary to pass through an intervening space to go from one to another. This separation of the experience offered by each space complements their relative closedness. It could be said in particular of the Musikmuseum, the MuCEM and the MAS that the spatial discontinuity of the layout sets the pace of the visit.

Our sample is small and does not allow for generalisation, but the common spatial properties of closedness, discontinuity, directness of relations and lack of hierarchy found in the diverse AB displays analysed, seem to suggest a deliberate intent. These display spaces dedicated to the performing arts collections reflect the spatial properties of a ² See for example the analysis of the display layout of the National Museum of Modern Art, Pompidou Centre in (Tzortzi, 2015, chapter 6). See also the analysis of the display at MoMA as a spatial reinterpretation of Alfred Barr's 1936 classification of modern art in (Psarra, 2009, chapter 8).

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'theatrical' espace synthétique, in that they adopt 'the static nature of separated rooms, undisturbed by the intrusion of circulation' (Dickon, 1988, p.28), and form enveloping spaces which must be lived in and experienced.

The 'parataxis of experience'

These shared spatial properties acquire a fuller meaning when we relate them to the display. The a-type rooms in the Musikmuseum and the Branly, and the a-type convex spaces in the Musée de la musique are those where different media - exhibits, architectural models, music, audiovisual material - are brought together to give the display its immersive and experiential dimension. Also, the intimate scale of rooms of the MuCEM interacts with the scale of the puppets to offer embracing experiences of the marionettes in acting groups. In the much larger and more internally differentiated a-spaces of the MAS, heterogeneous objects are displayed which have in common their co-existence in the visitor's experience as part of the rich cultural and social life of the city. Even in the well-connected d-space of the Ashmolean, the co-presence of the collection of instruments with tapestries in the same gallery gives a degree of experiential diversity to the space, although the visual effects are relatively less intense, compared to the other case studies, whilst the cognitive links are highly arcane.

This clear emphasis on *experience* rather than *narrative*, combining information for different senses, reinforces the spatial argument about the nature of these spaces. Each brings together sights and sounds that are, or have been, related to each other in living reality, but are now brought together as complex experiences in the museum, and coexist independent of any intervening narrative. This can be seen in the light of a technique common in poetry known as *parataxis*, meaning 'placing side by side' or, in literary terms, the placing together of sentences, clauses, or phrases without a conjunctive word or words. Applied to exhibitions, this has been held to mean 'the power of juxtaposition to create meaning in the gaps between things, and particularly to the idea that these gaps work through poetic or affective realms rather than explicit rational forms of knowledge production' (Witcomb, 2015, p.323) – or more simply, the juxtaposition of objects without specific narrative and so the 'prioritising of experience over abstract forms of reasoning' (Ibid., p.325; also Chakrabarty, 2002, p.7-8).

As we have seen, what is brought together in the a-spaces dedicated to performing arts collections is not so much different objects, but different forms of *experience* derived from objects, perhaps including the visual, the aural, the architectural, the theatrical and the musical, as well as aspects of the performative. These are not presented in such a way as to give priority to a cognitive account of the relations between them, but they are first and foremost simply experienced together, so that the relations are understood through direct experience and imagination rather than through explanation. In this sense, what is offered in the a-spaces can be thought of as the *parataxis of experience*. The relative closedness of the a-spaces and their static rather than movement-oriented character, offer preconditions that facilitate the assimilation and understanding of these complex communications.

In contrast, the b-spaces, or paths, which are the natural corollary of the a-spaces, tend to reflect some kind of overall cognitive ordering of the a-spaces and their contents. The geographical layout of the Branly, the historical sequence of the Musée de la musique, or the thematic organisation of the Musikmuseum can be said to represent in an elementary way the 'narrative' dimension of the museum's message. Taken together, the a- and bspaces suggest a spatial layout of the museum that responds to the need for performing arts displays to express complex experiences as well as cognitive narratives. It seems that museums of performing

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arts collections need to resolve in a fundamental way the tension found in museums in general between the *cognitive* task of explaining the origins of objects, and the *experiential* task of expressing their intrinsic quality.

Conclusion: A spatial culture for performing arts collections

The different resolutions of this tension in the espaces synthétiques of five of our six case studies could be said to outline between them a spatial culture for the museums of performing arts collections. Each is a way of interpreting the combination of the AB spatial form and the parataxis of experience, so the spatial culture can be argued to be the genotype for which the espaces synthétiques of the different museums are the phenotypes. For the museum in general, parataxis has been suggested as a technique to counter the neglect of the emotional impact of objects, as a consequence of its concentration on the cognitive. In our case studies, an implication of the parataxis of experience is that, while there cannot be a 'museum of performances', since the performance dies at the moment it is ended, it is possible to create in the museum, and in a poetic way, dimensions of the circumstances in which performances are created, so transmitting some of their living richness. The performing arts spatial culture, combining the AB structure and the parataxis of experience to create distinctive espaces synthétiques which cannot be passed through but must be stepped into, is perhaps the architectural and museological means to this end.

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