Spatial dialectics: montage and spatially organised narrative in stories without human leads

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Abstract
This article analyses and formulates mechanisms for creating meaningful and engaging narrativity in interactive movies not based on character, where the dialectic relationship between architectural space and the rules that govern montage shape the narrative structure. Formalist analysis of Dziga Vertov’s film Man with the Movie Camera (USSR, 1929) highlights two significant terms which play a central role in the formulation of the rhetorical argument of the moving image. ‘Punctus-contra-punctum montage’ (‘counterpoint montage’) describes a technique that exploits analogies in form or content between adjacent clips, to produce meaningful thematic sequences; while Lev Kuleshov’s ‘artificial landscapes’—the imaginary, creative geographies constructed of moving images that exist only on the screen—offer a way of arranging media spatially. A proof-of-concept, prototype production, Cambridge City Symphony (Alifragkis & Penz 2006), where these approaches are instantiated as rule-sets, and handled by the computer, illustrates how these produce engaging interactive narrativity.

Keywords: artificial landscapes, counterpoint montage, formalist film analysis, spatially organised narrative, visual analogies of form or content

1 Introduction
In the 1920s and 1930s, the fascination with the city as a complex phenomenon resulted in an unprecedented increase in moving-image works, which aimed either directly or indirectly to compose visual cinematic poems, that encapsulated the dynamics of modernity. Such daring formalistic experimentation with the iconography of urban landscapes is now generically referred to as ‘city symphonies’. The research performed at the Digital Studio of the Department of Architecture, University of Cambridge, under the supervision of Dr. François Penz, focuses in the study of select theoretical work on cinema, architecture and urban planning. This functions in parallel with the systematic analysis of the filmic legacy from the 1920s as a means of detecting, retrieving and automating the reproduction of syntactic editing rules and narrative structures, that will enable the contemporary author to generate meaningful and engaging cinematic storytelling about modern cityscapes. The city symphony form makes it possible to construct a cinematic rhetorical argument about the city without resorting to traditional dramatic action, based on main protagonists. The shot-by-shot formalist analysis of an existing moving-image work, Dziga Vertov’s Man with the Movie Camera (USSR, 1929), has supplied the research groundwork on spatially organised narratives and alternative editing techniques. These results have been incorporated in the design of Cambridge City Symphony (Alifragkis & Penz 2006), an NM2 project that experiments with non-linear cinematic narrative and the spatial arrangement of a
fixed pool of media annotated with metadata in clusters of meaningful narrative within themed episodes, following predetermined sets of editing rules.

2 Rhetoric of the moving image

From the expressionist urban filmic collage in *Manhattan* by Charles Sheller and Paul Strand (US, 1921) to the contemporary cinematic dystopia of *Megacities* by Michael Glawogger (Austria, 1998), the city symphony film genre has gradually evolved as a quite singular cinematic archetype over the course of the last eighty years. Detecting the intrinsic features of a city symphony has been the focus of the work of researchers such as Myriam Juan, who systematically analysed and catalogued 73 films, all shot in the streets of Paris, documenting the city between 1919 and 1929, and where

> For reasons of proximity, and even more so as it appears, by love of the subject, Paris became the central theme [...].

*Juan 2004, p. 291*

City symphonies could be described as moving-image works that draw out elements from everyday-life in urban environments, and reproduce them creatively on the cinematic canvass of the screen, renegotiating the mythical aspect of urban landscapes (see further Barnouw 1993[1974], pp. 73-80).

These films are usually shot on location with limited or no use of set design. Locations such as the train station, the factory, the street or the market become iconic representations of a brave, new world of rapid modernisation. As enthusiasm for the city as the field of astonishing transformations gradually fades out—as early as 1939, *The City*, directed by Ralph Steiner and Willard Van Dyke with a commentary by historian and city-planning theorist, Lewis Mumford, urges the city-dwellers to seek a healthier life-style in the suburbs—contemporary city symphonies begin to portray areas of the city that usually exist both inside and outside the busy rhythms of everyday-life, resembling what Foucault calls ‘heterotopias’ (Faubion 2000, pp. 175–186), and Augé presents as the ‘non places’ of supermodernity (1992). The ephemeral protagonists in a city symphony are not professional actors, but people from the environment invited to play their own roles, usually with very limited screen-time, and no time for character development; the camera-lens soon departs in search of the next temporary leading figure in a new urban activity. Finally, city symphonies tend to use a temporal formal structure, rather than a dramatic plot—taking place from early in the morning till late in the night or vice versa, over the course of a day, of a week, or even of a whole year (see Penz 2003, pp. 144–145 for *City symphony* form).

The dawn-to-dusk or dusk-to-dawn narrative structure provides temporal continuity to compensate for the lack of spatial coherence, as well as the lack of dramatic character-based plot. Both traditional and contemporary city symphonies constitute invitations to experiment as freely as possible with the physique of the city, by putting together, in the same sequence, shots filmed on different—and often incompatible—locations. Lev Kuleshov’s concept of imaginary, artificial landscapes that exist only in film—creative geographies—highlighted by Levaco in the introduction of *Kuleshov on film: writings by Lev Kuleshov* (Levaco & Kuleshov 1974), lays down the theoretical foundation for the reconfiguration of the filmic city. Montage, the editing technique that supports the narrative structure of a city symphony, provides the main cinematic tool of the reconstruction of urban landscapes. Montage—exploiting visual analogies of form or content between adjacent clips—in the context of Kuleshov’s creative geographies for the screen, are key to understanding and making a city symphony.

The intrinsic characteristics of this diverse genre can be extracted as generic rules for the reconstruction of contemporary urban
landscapes in cinema, for interactive computer-handling. Employing what Deleuze terms ‘dialectical montage’ (2001[1983], pp. 32–40), this article argues that the dialectic relationship between the architectural space of the city, as reconstructed on the canvas of the screen, and the rules that govern montage, shape successful and compelling narrative structures, which focus the audience’s attention on the city itself as the main ‘character’ of the film, rather than on human protagonists. City symphonies are less about documenting reality as reality is, and more about producing an artificial reality. They formulate a cinematic rhetorical argument, where the meticulous construction of montage sequences with internal consistency, and the manipulation of the image of urban spaces produce an elaborate dialectic schema. This complex but consistent methodology provides an ideal set of rules for computer-handled configuration.

3 Formulating the argument
The formulation of the cinematic argument is here addressed in terms of the conditions for the cinematic representation of urban landscapes, and more extensively, as regards to the cinematic tools of these representations. Vertov’s Man with the Movie Camera—a film that epitomises the characteristics of this film genre (Neumann 2005, p. 85)—acts as a concrete and particular example. The rules identified in this key work provide the design for the narrative structure of the CUMIS production for NM2, Cambridge City symphony.

3.1 Filmic construction
Dziga Vertov in Man with the movie camera organises a sizable pool of media into two main, themed episodes; each set in different temporalities. These are further divided into a number of sequences, or meaningful narrative clusters, that tackle different topics, relevant to the city and its life (i.e. waking up, working). The first episode portrays daily activities in the morning, or around noon, on weekdays in autumn or winter. The dominant sequence is woven from clips of workers, machinery and factories or construction sites, and epitomises Vertov’s stylistic preferences as far as mise-en-cadre (framing) and montage—sequences arranged not by continuity of time, place and action but thematically—are concerned (see Rabiger 1997, p. 514 et passim for montage editing). Dynamic and expressionistic framing, expressive close-ups and extreme close-ups on people and machines, rapidly-edited sequences and analogies in form or content between adjacent clips, make up Vertov’s basic filmic vocabulary, and have remained extremely effective in conveying the spirit or character of the city for eight decades. The second and final episode of Man with the movie camera portrays activities in the afternoon or evening, at weekends in spring or summer, and uses the same fundamental approach to screen language. These two main themed episodes are flanked by opening and closing sequences, which create a complete circular narrative—the film opens and concludes with people at a cinema watching Man with the movie camera!
Vertov marks transitions from one theme to another with brief interludes (see Petric 1987, pp. 148–154 for the ‘theory of intervals’). These interludes consist of extremely short clips, alternating according to a complex set of rules, that maximise the potential of formalism while infusing the film with a well-tuned internal rhythm.

A shot-by-shot formalist analysis of Vertov’s Man with the movie camera highlighted family resemblances within the city symphony film genre, and used these to develop metadata for the real-time assembly of coherent narrative. It listed analogies of form or content between adjacent shots and traced patterns for syntactic editing rules within montage sequences, using a graphical representation of the metadata as charts to detect the patterns.

A fixed set of categories of the different formal characteristics of shots emerged, with
A chart grouped these categories (i.e. screen left, screen right, away, towards, up, down) in different families (i.e. camera-lens movement, movement within the shot, effects). The horizontal axis of the chart (designed in Adobe Photoshop) accommodates these categories, while its vertical axis ranks sequences of shots (Figure 1).

The chart was refined through a number of experiments: the most useful involved comparing shots that appeared to have identical verbal descriptions (according to the chart), tracing their differences (if any), and refining the categories on the chart to be more sensitive and precise. The final chart contains more than 70 formal categories and subcategories, organised into 15 families (Figure 2).

The categories were used to annotate each of the 1,695 shots of which *Man with the Movie Camera* consists. This metadata was imported into Microsoft Excel, where the statistical information was visualised as graphs displaying trends for each category over the duration of the film (Figure 3) and pie-charts showing percentages for families (i.e. how many extreme close-ups, close-ups, medium shots and wide shots Vertov’s piece comprises).

The interpretation of the results of this shot-by-shot formalist analysis of Vertov’s film led to the detection of a set of conditions concerning the kind of urban spaces Vertov depicts, and the new role they assume in his filmic construction on screen; and a varied set of tools (i.e. different editing techniques) for the cinematic representation of urban landscapes. When the 1,695 AVI clips, each consisting of a single shot, were exported from Avid Xpress Pro (the editing software), and imported, with their metadata tags, into the prototype NM2 experimental Toolkit (developed from BT FMT, see below and www.ist-nm2.org), it became possible to reproduce the structure of Vertov’s film as the backbone for Cambridge City Symphony, an NM2 nonlinear prototype experimental production.
3.2 Conditions of the cinematic representation of urban landscapes

The symphonic reconstruction of urban landscapes in cinema presupposes a profound understanding of the elements of the iconography of urban environments, and their interdependence. The visual exploration and reinterpretation of the image of the city also calls on personal vision—perhaps a strong ideological conviction concerning the role of the city—in fact, the success of a city symphony could be said to depend largely upon whether the authors communicate their visions about the city to audiences.

Vertov constructs a cinematic urban iconography that bypasses private housing—interior, domestic environments (such an interior space is shown only once at the beginning of the film)—and focuses almost exclusively on the public spaces of the city. Vertov seems to be weaving an idealised landscape of urbanity, where industrial production is as important a collocutor in the formulation of his rhetorical argument—in industry and productivity as the key ingredients in the smoothly-running and contented city—as the busy streets of downtown Moscow. The factory, a symbol of capitalist oppression in Sergei Eisenstein’s Strike (USSR, 1924) and Vsevolod Pudovkin’s The End of St. Petersburg (USSR, 1927), is transformed through Vertov’s camera-lens and montage techniques into a positive space, where the collective conscience of the newly-reformed working class is moulded. Vertov gives positive value, too, to machine aesthetics, thus exploring the complicity between the city as an ideological construction and the modernisation of its landscape—such as electrification of streets and public transportation.

Vertov tends to highlight novel architectural types for collective living—such as worker’s clubs—in accordance with the rhetoric of his era, and contemporary city planning (Kaganovich c1931, pp. 23–32).

This article would like to suggest that this gleaning of iconic urban images, and their creative reconfiguration in Vertov’s filmic construction, constitute a projection of the ideal socialist city of the future, that both acknowledges and distances itself from the raging ‘urbanist-deurbanist’ dispute, over the future of the Soviet city. The pluralism of theories of architecture and city-planning in Russia in the 1920s informs the diverse approaches to the Soviet city of the future, a debate that, by the end of the decade, had turned to warfare, polarising architects into two main groups. Diametrically opposite to Okhitovich’s theory of ‘deurbanisation’—the construction of linear cities with prefabricated single-family houses that would spread throughout the country—stood Sabsovitch, the main theorist of ‘urbanisation’, the idea of a city exclusively composed of huge communal houses, arranged around factories (Kopp 1967, pp. 178–179; Cooke 1995, p.196). The formalist analysis of Man with the Movie Camera provides evidence that Vertov chooses to construct the cinematic image of the ideal socialist city of the future through the representation and manipulation of iconic images of the bourgeois city of the past (i.e. neoclassical architecture); a past whose historical and cultural bequest many were trying to escape (Lissitzky 1970, p. 50).

For the design of the prototype, computer-handled, interactive digital movie, Cambridge City Symphony, the conditions of the cinematic representation of urban environments were reappraised through the ideology of 21st century thinking on urbanism. The movie focuses on daily activities in and around Cambridge’s main public space, the Market Square. In this new cinematic city, the factory—the forge of Vertov’s Soviet working-class identity—is replaced by the market, where the shared identity of the 21st-century-consumer is being formulated. Industrial production is replaced by material and cultural consumption.
3.3 Tools for the cinematic representation of urban landscapes

The shot-by-shot formalist analysis of Vertov’s *Man with the Movie Camera* highlighted a number of features, which together play a central role in the formulation of his rhetorical argument of the moving image. Two main features were further explored in the design of the narrative structure and the computation of editing rules for *Cambridge City Symphony*.

3.3.1 Punctus-contra-punctum (counterpoint) montage

As noted in section 3.1 above (Filmic construction), *Man with the Movie Camera* comprises two main themed episodes which, in turn, consist of a number of meaningful narrative clusters, or sequences. To construct these, Vertov utilises a number of editing techniques, including continuity and parallel editing (see Katz 1991, pp. 121–145 & p. 358 for continuity style), but, most characteristically and frequently, he relies on montage. The term ‘counterpoint montage’ was coined by Alifragkis to describe a particular montage technique that intensifies the effect of juxtaposing analogies in the form or content of adjacent clips, by rhythmical repetition of brief clips, that may seem identical, but are, in fact, subtly varied in the rhythm and the synthesis of the frame. Vertov interweaves several short clips in chronological sequence from a long take of one pro-filmic event (i.e. a female worker repeating the same movements mechanically, while manufacturing small boxes) with a chronological sequence of several short clips from a long take of a different pro-filmic event (i.e. an equally repetitive set of movements made by pieces of machinery in a quite different manufacturing environment).

A sequence that illustrates very clearly how counterpoint functions in Vertov’s film, starts with shot 522 (in-time: 00:30:18:19, BFI catalogue code: BFIVDS02) and ends with shot 561 (in-time: 00:32:32:12)—40 shots lasting 02:13:18 (Figure 4).

The continuity-edited sequence (shots 522 to 536 = 15 shots) (where the action is followed with an appearance of continuous flow in time and place, achieved by disguising the cuts to the point of invisibility to the unpractised eye) tells the story of a woman who [calls at a hospital to report an accident and] requests an ambulance—though it may
be that she [works at the hospital and] receives a phone-call informing her of the accident: the construction of the film suppresses the woman’s motivation (she is hardly a character). The details of the action are unimportant: what matters is that the ambulance, which has an important function in the urban narrative, is sent off on its journey, followed by the cameraman. The ambulance reaches the site of the accident and retrieves a wounded man. At this point, the montage sequence begins (shots 537 to 561 = 25 shots) with a man sounding the horn, and clips of the fire-brigade alternating with clips of the ambulance returning to the hospital. These 40 clips fall into 5 thematic categories (activities), which play their parts in the contrapuntal rhythm (A: woman calling, B: ambulance arriving and leaving, C: wounded man, D: fire-brigade, E: camera-lens).

A line on the graph indicating the succession of clips both in the continuity-edited and the montage sequences, shows that two consecutive clips almost never come from the same thematic category (restrictions apply). Furthermore, quite often, every other clip in both parts belongs to the same thematic category. Reading the clips belonging to the same thematic category in sequential order (i.e. not emptied of their original content and used as placeholders, yield a graphical representation of Vertov’s sequence as a stripe, where the alternation of letters indicates different themes, or activities (Figure 5).

Theme B is designated the ‘main’ theme because it runs through the whole of the sequence, forming its backbone. The ‘main’ theme plus the ‘secondary’ themes create a continuity-edited sequence. There seems to be no restriction as to the number of secondary themes. For the montage sequence, Vertov introduces theme D, which functions as a ‘counterpoint’ to the main theme. Purely formal criteria such as similarities or dissimilarities in the movement within the frame will determine a suitable counterpoint to the main theme. It may also arise from contrasting content—Vertov juxtaposes a woman giving birth to her child and a funeral, and couples getting married and divorced. Here too, there seems to be no restriction on the possible number of counterpoints to the ‘main’ theme. Theme E, ‘the camera-lens’,

defined [...] and elaborating upon this theme and its various elements contrapuntally [...]. (Mann 1971, p. 7)


‘Punctus-contra-punctum montage’ is akin to the parallel action or cross-cutting editing technique, frequently used in moving-image story-telling to build suspense, when two (rarely more) simultaneous events are revealed bit by bit, alternating between them (see Hayward 2000, pp 94–95). However, it is distinct in eliciting analogies in the content or the formal structure of the frame—rather than action based ones—between the interwoven shots (i.e. montage of the alternation between two medium shots of vehicles moving in opposite directions).

Categories A (woman calling), B (ambulance arriving and leaving), C (wounded man), D (fire-brigade) and E (camera-lens), emptied of their original content and used as placeholders, yield a graphical representation of Vertov’s sequence as a stripe, where the alternation of letters indicates different themes, or activities (Figure 5).
functions both as an interlude to suggest the conclusion of a sequence, or of parts of sequences; and as a recurrent reminder of the narrator, the omnipresent, ‘autonomous’ and ‘objective’ mechanical eye of the camera, according to Vertov (Michelson & Vertov 1984).

‘Contrapuntal montage’ is a distinguishing feature of how Vertov constructs the city symphony, creating his screen city not by navigating the real city from street to street, or from building to building, in a continuous flow of action; but by juxtaposing details of urban architecture, disparate in place and often time, according to significant themes and the composition within the frame.

3.3.2 Artificial landscapes and creative geographies

Artificial landscapes, as introduced by Russian film theoretician and director Lev Kuleshov in the 1920s (Levaco & Kuleshov 1974), are a creative geography—the construction of imaginary places that exist only on the screen. Such landscapes emphasise the dissimilarities between the physical, three-dimensional terrain of the city, and its representation on the canvas of the screen, via the creative renegotiation of montage, where elements are connected by topic or argument or aesthetics within the work. Architectural space can assume a dialectic relationship with its various cinematic reconstructions. Juxtaposed by the film-maker, specific features from the topography of a place can evoke particular ideological connotations (like the factory process as the manufactory of working-class identity) or archetypal significations (like the ambulance as token of the services an ideal city supplies to support and succour its citizens). The spatial relationships between these features on the screen can produce a special, and very effective kind of urban narrative. In Man with the Movie Camera, Dziga Vertov constructs a centrally important, long, themed episode on ‘work, workers and working conditions’ in the USSR in this way, grouping together, around
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Nodal architectural points in the city—long shots of industrial buildings, and close-ups of smoking chimneys—clips with men or women in the acts of weaving, digging, planting, building all shot on different locations, unrelated geographically to the factories (which provide the backbone of the sequence) and showing how the individual and disparate labours of traditional cottage industry become subsumed into the more effective collective activity of the city.

In devising the proof-of-concept experimental prototype computer-handled digital Cambridge City Symphony, Vertov’s analysis of Man with the Movie Camera, produced the basic ontology for creating rule-sets, by which the clips shot on different locations could be reconfigured into different screen geographies, according to chronology, topic, theme, and composition in the frame. The experiment tested how well a computer-handled narrative could formulate the natural choreography derived from a pool of media annotated with metadata.

4 Cambridge City Symphony

Cambridge City Symphony (Alifragkis & Penz 2006) is a digital, non-linear, pilot production that experiments with spatially organised narrative and ‘counterpoint montage’ for the construction of artificial landscapes to produce engaging interactive cinematic narrativity.

It invites users to tailor their personal cinematic portrait of a day in the life of the Market Square, Cambridge, through a spatial graphical user-interface (designed in Adobe Photoshop; with Macromedia Flash handling the interaction). The interface is based on a 3D model of the Market Square (Figure 6). On this 3D model, certain nodal architectural points (the fountain, the church, the college-building) have been turned into hotspots (Figure 7) that gather around them clips of particu-
lar kinds of dramatic action (activities), shot in different locations of the city, which share common characteristics in terms of content or form. Shots of shop-owners opening and closing the stores, shots of stall-owners setting and packing their stalls, shots of people having breakfast, lunch or dinner, shots of workers cleaning the market, are grouped around these nodal architectural points on the 3D graphical user-interface.

Users can set the initial conditions for their journeys by choosing between different times of the day (morning, midday, evening), different activities (washing down the market, setting up the stalls, closing the shops), different options for the soundtrack (source sound, voice over, music) and different durations for their movie (short, medium, long), before enjoying their personalised version, configured in real time. A different set of initial selections will generate a new configuration of the media, but will not throw visitors out of the flow of the audiovisual experience by obliging them to make decisions at every point of their journey.

For the production of *Cambridge City Symphony* pilot prototype, a prototype toolkit designed by BT at its research labs in Mar
tlesham (*Flexible Media Toolkit (FMT)*) was used, parts of whose design became the basis for the development of the NM2 toolkit. The *FMT* enabled the design of the *Cambridge City Symphony* project utilising pre-defined ontologies and rules derived from the analysis of Vertov’s work. ‘Programme templates’ (in the NM2 toolkit ‘Plot frameworks’) were generated according to the authors’ instructions as to dramatic shape, and modified by the choices of individual visitors as to content. The software retrieves the media that meets the requirements set by the template from a larger pool of clips annotated with metadata.

*Cambridge City Symphony* experimented with several programme-templates that shared a fractal-like design philosophy (Figure 8). Different activities that take place in the Market Square, Cambridge, are arranged in 3 episodes according to time of the day (morning, midday, evening), paralleling the structure favoured by Vertov. Within each episode there are 3 sequences, which, like the 3 episodes, share the same design-principles. In turn, each sequence is further subdivided into 3 parts, or clusters of narrative scenes. Each cluster consists of an intro clip, a finale clip, and the main body, or exposition, where two pairs of clips from a main activity (X) alternate with two pairs of clips from another main activity (Z). ‘Counterpoint montage’ was used extensively throughout the project, testing Vertov’s method for producing engaging story-telling. The filmic construction of reconfigurable, artificial cinematic screen versions of the City of Cambridge proved an effective way to maintain the interest of visitors exploring this interactive, computer-handled rendering of a *City symphony* (for additional information see Production report: *Cambridge City Symphony* at http://www.ist-nm2.org/publications/deliverables/deliverables.html).
5 Concluding remarks

In ‘Synthesis: a dialectical problem to solve in life and art’, where she attempts to detect the diachronic presence of dialectics in the creative process of design, Athanassiou (2006, pp. 24–35) discusses a dialectic schema where “different entities are transformed into a new identity”. In the case of Cambridge City Symphony, the synthesis of the actual topography of the place with the filmed (represented) city, in the form of an artificial landscape generated in real time from a pool of media annotated with metadata, produces multiple new entities. As a case study, this explorable, reconfigurable pilot prototype production puts to the test the presentation of an urban environment in a social context using ‘counterpoint montage’, and the spatial arrangement of media around distinct features of the urban landscape. By embedding these in computer-handled templates, it provides patterns for transferable, meaningful and engaging narrative structures, which could be used for a range of interactive city symphonies. It realises an alternative to depending on character-based, cause-and-effect dramatic narrative, edited to simulate continuous action, and hinging on continuity of time and place for comprehensibility. The design-concept, inspired by Vertov, proposes the spatial layout of a story, or argument in non-linear, interactive environments, in direct dialectic relationship to the actual topography of a city. Coupled with the construction of well-crafted counterpoint sequences, this offers an effective way of making engaging narrative, without relying on dramatic protagonists: the city itself is the main character.

Acknowledgements

We would like to thank in particular NM2 project partners: Christoph de Jong and Michael Brandstetter from Sony NetServices, Austria; Tim Stevens, Alex Palmer, Martin Russ and Doug Williams from BT Labs, Adastral Park, Martlesham (Future Content Development); Maureen Thomas and Ludvig Lohse from the Digital Studio, University of Cambridge; and collaborators outside the NM2 consortium, Tom Bridges and Roland Woolner from Split Image, London; composer Andrew Lovett; and Mark Breeze, for their invaluable contributions in making Cambridge City Symphony (Alifragkis & Penz, CUMIS/Digital Studio, 2006) NM2 pilot prototype. The analysis of Vertov’s film reported on here has been conducted as part of Stavros Alifragkis’ doctoral research at the University of Cambridge under the supervision of Dr. François Penz. It has incorporated material from a previous post-graduate research project by Stavros Alifragkis, conducted under the supervision of Associate Professor Panagiotis Tourkikis at the School of Architecture, National Technical University of Athens (2005). The methodological framework of this analysis was, to some extent, based on Petric’s study (1987). The BFI version of Vertov’s movie (catalogue code: BFIVD502) was utilised for the analysis.

References


Cambridge City Symphony release 2.0 (2006), written, produced and directed by Stavros Alifragkis & François Penz (Digital Studio, University of Cambridge), music composed and performed by Andrew Lovett (Cambridge); original graphical user-interface designed by Tom Bridges & Roland Woolner (Split Image, London), programming by Christoph de Jong (Sony Netservices, Austria), additional programming by Michael Brandstetter (Sony Netservices, Austria), technical support by Tim Stevens & Alex Palmer (BT Labs—Future Content Development, Adastral Park, Martlesham), production consultancy by Ludvig Lohse (Digital Studio, University of Cambridge) & Martin Russ (BT Labs—Future Content Development, Adastral Park, Martlesham), production supervision by Doug Williams (BT Labs—Future Content Development, Adastral Park, Martlesham), narration by Mark Breeze; University of Cambridge, CUMIS/Digital Studio, Department of Architecture, UK (exhibited at Fournos Centre for Digital Culture, Athens, April 2006 <http://www.fournos-culture.gr/site/English/NewsAndEvents/interactivefilm.html>) [Interactive PC DVD experimental prototype].


Fournos Centre for Digital Culture, http://www.fournos-culture.gr


with the Movie Camera—a cinematic analysis, Cambridge University Press, Cambridge.
Strike (1924) directed by Sergei Eisenstein & Grigori Aleksandrov, Goskino & Proletkult, USSR, [film].
The City (1939) directed by Ralph Steiner & Willard Van Dyke, US, [film].
The End of St. Petersburg (1927) directed by Vsevolod Pudovkin, Mezhrabpom, USSR, [film].

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