ABSTRACT

Spectacular and technological, between the historic Avant-Garde and Post-Modernity, Jacques Polieri crosses and deconstructs data. Since the scenographic design of his shows is more complex than simply decorating space, the theatrical scenes pass from the actor to the avatars, from movement to mathematics, by means of multiple interconnections. Even though he produced his *Interactive communication games* between New York, Tokyo and Cannes by projecting a «Man Machine Interface» in 1983, these 1960s projects are considered utopian.

Even so, his *Gyroscopic Satellite Room* is a perfect opportunity to radically rethink creative space part and parcel of a search outside strictly contemporary limits. Besides, as early as 1963 he thought that «since some actions take place at some very far distances on one hand, some others could equally be contemplated thanks to TV technology. No doubt, the inclination, rotation, orbits and movements of planetary systems make up the actual geometrical structure of a future scenography». So perhaps the progressive integration of technology into his research is at the heart of a new development that is not only part of a modernization of art through a mutation linked to the new media, but also opens up an infinite virtuality.

BIOGRAPHY

Franck Ancel was born in 1970, France. He lives and works in Paris. He has been probing technology for more than fifteen years. He has traced the development from the avant-gardes artists of the last century to the recent mutations of creation on a planetary scale.

He has thus organized and coordinated symposiums, expositions, and performances in cooperation with associations and institutions. The last one was a retrospective on Jacques Polieri, the creator of "modern scenography," at the BnF.

Since the attacks of 9/11, Franck Ancel has set up an interactive triptych AIT in France probing "architecture – image – technology" on 20th century heritage sites. In 2002, he put it in the Le Corbusier/Xenakis convent; in 2003 in a classified theater in Catalogne; and in 2004 on the screen of Montparnasse Tower in Paris.

Franck Ancel challenges the viewer outside traditional frontiers, by projecting a setting of a network of information on screens. At the same time, he analyzes this technique on a more theoretical level in texts and talks.

from Scenography to Planetary Network for refresh!

In 1990, the book of "Scenography" came as a shock during our research into the artistic foundations of the 20th century. Its author and promoter, Jacques Polieri, influenced us significantly with his original voice. Although present for the launch of the SIGMA festival in Bordeaux in 1965, he had founded the *Festival of Modern Art* with Corbusier in 1956, given that year to the Radiant City in Marseille, in 1957 to Nantes, and in 1960 to Paris, specifically to the Louvre and UNESCO. He built then his first mobile 'theatre in the round', which was supported by playwrights. Between 1950 and 1960, he experimented with his electronic devices on giant screens. In 1964, he directed the production of his video-ballet *Gamme de 7 [Range of 7]* in which he metaphorically blew up the stage area with projections extending beyond all spatial borders. In 1968, a second mobile theatre was inaugurated at the Grenoble Cultural Centre for the Olympic Games. He created the first interactive *video communication games* for fun at the Munich Olympic Games in 1972. In 1976, the Champs-Elysées Theatre welcomed his spectacle *Sonorité jaune [Yellow Vibrancy]* adapted from Kandinsky, a project which had been conceived 20 years earlier and about which he produced a film which was presented at the *Cinémathèque française* by Henri Langlois. Between 1985 and 1995, he focussed on information technology research and the activities of experimental video communication, first at a national level and then intercontinentally in Europe, America and Japan. In 1998, a simultaneous Cybercinema screening was made on the Net from Tokyo to Paris and vice-versa. This was also the year when our interest in his work developed into a personal dialogue with the man himself, leading to a professional exchange of views at his retrospective at the BNF in 2002 in Paris and then Berlin in 2003...

RULES FOR SCENOGRAPHY

From a very early date, there were signs that Jacques Polieri was ahead of his time; he personifies, although perhaps in a manner which is not directly perceptible, the crossroads of present-day questioning and manifestations of scenographic and electronic creation. In fact, unlike certain other creators, he harbours the complexity of multiple perspectives.

In 1989 Dr. Ladislav Lajcha of Bratislava university stated in his work The movement of the theatre that Jacques Polieri was an emblematic figure of 20th-century theatre.

Giovanni Lista, in his encyclopaedic *Scène moderne* published a few years ago, recalled that "from the mid-1950s, Jacques Polieri explored the new technologies, studied all the systems of simultaneous projection, devised the most elaborate connections between movement, light, image, space and sound".

In Barcelona in 1998, Professor Mercè Saumell, of the Institute of the Theatre, stated, with regard to a spectacle by the troupe Fura Dels Baus, that "a supplementary stage in OBS has been obtained through what Jacques Polieri has defined as 'absolute virtual movement', a movement obtained by the simultaneity of the real movement of the actors and spectators in space, and of the movement of the virtual images [...]. Thus, action and perception occur in three dimensions, creating changes of perception, optical illusions and visual syntheses".

For the Hanover World Fair in 2000, the Parisian group Bleu Lumière, responsible for the IBM pavilion "Planet of Vision", introduced in the on-line presentation of their project Jacques Polieri's definition os scenography: "a set of pictorial, visual, technical and theoretical features which allow the creation of an image, a two or three-dimensional construction, or the setting in place of some action, in particular related to the performing arts".

And yet, the diversity and versatility of reviews regarding his art insufficiently cover the work of this scenographer, which is both logical and analytic.

At a moment when, thanks to communication networks (data, sound, image), a planetary community is appearing, the projects and achievements presented at the Bibliothèque nationale de France in 2002 reveal the meaning of what could easily be misconstrued.

It is a question of deciphering correctly an artistic output which seems, on the one hand, to close the modern era and, on the other, invites us into the third millennium. We are confronted with a living adventure, which attempts to answer what have become standart questions. It opens the road to both

the survival and the development of art in the digital age.

What are the principal rules governing this scenography?

First, Polieri became aware of the constraints of enclosed locations and their cramped space. As result, he became interested in the problem of architectural envelopes. He then recognised the correlation between such envelopes and geometrical forms – the formal aspects are identical: Platonic polyhedra (complex polyhedra, convex or concave, rectilinear or curved).

The next stage for him was to analyse and understand the variations of installations and the organisational possibilities for broadcasting and receiving messages inside the enclosed form. The problematics or combinatory of the possible interchanges – left/right, top/bottom, diverse axes – within enclosed locations soon proved relatively restricted.

Did the movement inside these hypothetical combinations provide any greater degree of freedom?

The kinetic or kinematicstudy of movements is certainly of great interest in his work, but does not fundamentally call into question the scenographic data.

Nevertheless, changing from horizontal dimensions to vertical dimensions, or again from an image seen at 180° to one at 360°, then moving towards an aerial dimension considered as a third dimension transforms and animates the debate.

However, the limitation of the enclosed form still remains. How can an interior enclosed space be opened to an infinity, free, exterior space?

It is this operation on traditional stage-management that we perceive as a Copernician revolution, which unquestionably transforms Jacques Polieri into a creator of modern scenography.

The "Theatre of Total Movement", conceived as a scale-model as early as 1957 and built in Osaka in 1970 for the World Fair, is certainly the principal element of this historic mutation of which Polieri is the actor.

And it is from this standpoint that a whole series of productions become comprehensible (*Gamme de 7* [*Scale of 7*], *C2/42*, *L'Oeil Oiseau* [*The bird-eyes*] with Joan Miro, the Ecumenical Pavilion in Montreal, ...), which thereafter attempt, with the help of electronic projections, to broach the surrounding walls and create a passage between the interior and the exterior.

They were soon followed by the Video communication games at the Munich olympic Games, then by other identical events and a publication with the same title presenting the theoretical bases. The question then arose of their congruity with given technology. The passage from mechanical technology to electronics which would end in the interactive planetary videotransmission (New York, Tokyo, Paris, ...): an "Image-Man-Machine" interface.

An intuitive awareness of the specific features and huge possibilities of electronic images and computer sciences then became part of that Polierian course which he announces as "everything, straight away, everywhere, always".

Has the art of electronics integrated all this prior research?

Here too, only one facet – "communications artist" – is proposed in Jacques Polieri's achievements with respect to the new media which have been appearing since the 1970s. Whereas, precisely, he had already, much earlier (in 1963) described a new type of scenography, in his text *Scénographie de l'image électronique* [*Scenography of the lectronic images*].

During this same period, modern and contemorary art truly began to break down the divisions existing between the arts with the advent of performance art, happenings and installations. All the bases required for the renewall of creative forms were thus laid.

Since the late 1980s and the worlwide spread of the Internet, technologies have appeared whose existence and mastery are increasingly claimed by their creators. These tools have also radically transformed the traditional foundations of the narrow fields of creation.

The computer, under its present aspect "personal calculator", has become the centrepiece of many compositions. For it henceforth allows a whole series of creations to be easily steered in new directions.

Digital technology allows all data to be acquired, collected, and reshaped in a creative manner. This reality can now be envisaged coupled with networked communications technology or with other extensions, for example robotics.

The source itself and its transcription via this digitalisation can be enhanced by so-called "intelligent" agents in computer programmes, "genetic algorithms". That creates a direct hold on an

increasingly unavoidable reality. Its digital codification orchestrated in the computer programme can then be transformed and reappear inits equivalent approaching or under a completely different form of data or action, at any distance.

This is a dual evolution which leads right now to creative interplay between the arts and technology, but which obliges us above all to reconsider the creative act whatever the degree of openness towards technology, because of its generalised influence in our lives.

The Internet was above all, until now, a means of occasional relations. Today, it is the traces left by real paths which create a virtual cartography. This "mapping" of reality is completely different from existed until now as trace networks: routes, roads, plans, etc.

In his publication *Jeu(x) de communication*, Jacques Polieri had already compared a topology between networks and the notions of traces. He had even conceived a qualitive change in this moving of information.

In both cases it is a question of enhanced reality linked to existence. Capturing the real which immediately approaches the living, for a possible organic creation in return.

The digital era thus tends to hybridise creation in a process of composition merely by computer codes. But the space of its manifestation remains thought out like a recording, although it is possible to conceive it as the real game of time. That is why we must envisage the need to reconsider the very support of representations.

The screen as an enclosed support has to abandon its frontality which no longer has anything in common with this dimension of real time. It is moreover what Jacques Polieri points out theorically in the catalogue to his retrospective at the BnF Paris with his recent text "Rectangle and setting in depth".

While all Jacques Polieri's achievements and theories seem, at first glance, to attain or retain a Utopian aspect, these projects for a "satellite aidtorium" and "installation for a planetary location" are in fact merely a sort of return to a starting point. They are sketches that could be qualified as a "zero degree os cenography", which do not fail, in addition, to anticipate the need to reconsider the proposed technological potential.

For they are merely virgin, unexplored territory, on which we have to rebuild. Unkown conditions of creation which demand absolute invention without the permanent criterion of an outer envelope. Already, in 1967 and 1968, they preceded this move towards electronic technology, just a few years before the appearance of the first communication games in 1972 in Munich.

A certain degree of similarity between this consummate scenographic research and this technological period is still opening up, outside the acuired limits of artistic territories, a quest awaiting new visions.

This situation is then comprable with that of the NASA engineers (creators) who are today working on the development of a "space lift" which, in 2100, could take us directly up to satellites and the moon.

SCENOGRAPHY AND/OR CONQUERING TECHNOLOGY

In his text *Scénographie de l'image électronique* [*Scenography of the electronic image*], dating from 1963, Jacques Polieri wrote: "Actions taking place at very great distances from each other could also be envisaged thanks to teletechniques". This position anticipates our present confrontation with new media. However, the achievements of this pioneer do not arise from a concern for modernisation but, rather, raise questions regarding the renewal of different domains of study through inventive practices and theories.

Poleiri numbers among those who promoted the discovery of the historic avant-garde movements. He adapted Mallarmé's texts *Un coup de dés jamais n'abolira le hasard* and *Le Livre*. He manipulated images and sounds in his spectacle *Sémiographie d'une partition*, directed dancers for his ballets *Gamme de 7* and *C2/49*, and presided over cameras and microphones during "communication games".

His spectacles are detailed through systems of notation and diagrams. He proposed a unique form for the vision of each spectator. By calling on mathematics, he systematised the complexity of his compositions and opened the way towards a different type of performance or "act of fiction".

Thereafter, he altered his layouts on the ground and transposed planes using all three dimensions. Some works of this still poorly understood universe encopass aspects which remain to be discovered.

In 1970, for the World Fair held in Osaka, Japan, the *Theatre of Total Movement*, already conceived as model in 1957, became reality thanks to the Mitsui group. The spectators were moved in all three dimensions on platforms (a sort of gigantic mobile, in fact), facing multiple projections. This "theatre of total movement" brought to a close a certain form of aesthetics. The realisation was the conclusion and end of scenography itself, from a mechanical viewpoint.

Polieri integrated all types of technology, well before they became commonplace. The field of electronics thrust itself upon him. Innovative situations henceforth seemed to him to call on data processing. Budding network systems linked real territories to the virtual world. Polieri plotted new systems, fistly by creating "communication games", on continental or inetrcontinental scale, then by presenting digitalised images (cybercinema in 1998: Tokyo to Paris then back to Tokyo).

His scenography can gradually be understood as something universal: an art wich could be called "Polierienne" (in the same ways as the term "Pascaline" designates Pascal's calculating device). While the stage manager as such may be on the road to extinction, his creation is becoming an "absolute virtual movement". It brings into the realm of possiblity the establishment of planetary or imaginary locations, as an interface between the virtual and the real. His sketch for a "gyroscopic satellite auditorium", his drawings for a "project for installing a planetary location", may now aspire to become reality.

Such an approach can no longer be ignored. Its virtuality bestows shape on an "elsewhere", and young creators should take up the challenge: "The inclination, rotation, orbits and movements of the planetary systems probably represent the geometric structure of a future form of scenography".

CONCLUSION

In his book *What is the Virtual?* Pierre Levy, the Frenchman teaching in Canada, explains that, in our digital era, *art is no longer about creating a "message" but about devising a machine that gives something still silent the cosmic creativity to allow its own melody to be heard. A new sort of artist is appearing, one who doesn't tell stories anymore but who is rather an architect of event space, an engineer of words for the millions of stories of the future.* Jacques Polieri has virtually become, in our eyes, this kind of artist, having introduced the presence of abstract art into spectacles. Given the extent of his work over more than 50 years, it is difficult to mention him so briefly in this paper.

In the next new edition in France between now and the end of the year of a review led by Polieri, "Spectacle: 50 Years of Searching", which dates from 1958, our paper will demonstrate that Polieri is in the tradition of the international, so-called historic avant-garde. Polieri calls not just for straightforward modernisation but strives for an even more unrecognised field for our new millennium, one which deconstructs space for representation through action.

For Polieri, it is therefore not only a question of adding supplementary technology to the electrification of theatres or to the appearance of new sounds in the cinema. He positions himself beyond a (future) "Post-Theatre and Pre-cinema". In addition, the digitisation of the living on a planetary scale that we know today is probably organised within the limits he has been unable to overcome in his quest for an entirely cosmic dimension towards the infinitely great. Conquering space, in contrast with his research, is only an additional set of themes for contemporary art, in the same way as any other. Similarly, contemporary space-time tries to integrate vast exchange networks and creative happenings which every individual on the planet uses or is subjected to via the computerisation of the world, without questioning the borders of the very place of its representation.

Moreover, we referred to this issue in our paper "from Scenography to Planetary Network for urban screen", in search of new "exhibition" space. In addition, in our paper "from Scenography to Planetary Network for e-performance and plug-ins", we will present our expectations for an idea for tools and/or instruments as an interface for truly contemporary creations.

These interpretations, which stem from a Polierian history of the arts, are also important for understanding our era and are henceforth a meaningful subject at a crucial time. Thanks to current

technology, we are therefore directing not only these theories but also our practice towards "MWD" (Mobile-Wireless-Digital). This will even allow us to imagine and envisage the possibility of producing an action as a « Aménagement pour un lieu planétaire » (« Installing a planetary place ») in the middle of the desert at the heart of the birth of art and humanity. We would like to demonstrate this on the African continent, depending on whether we obtain the necessary logistical and financial support…

But we have already applied this "MWD", which seems to us to be the key for the artistic happenings of the future, to our triptych project, AIT (Architecture-Image-Technology/2002-2003-2004). Is it still necessary to have solved the very shape and date which gives meaning to its appearance out of surpassed spaces for representation through an individual or a community? Further, during a trip to Asia at the end of 2005, we will end our cycle of five papers "from Scenography to Planetary Network" with several proposals on precisely this subject, in the conditions and context of "MWD".

In addition, this desire to reveal the main stakes, which are sometimes forgotten in the history of the art of the media, technology and science and with which we have been involved for several years, echoes a remark made by the historian and author of "From Wagner to Virtual Reality", Randall Packer, following the events of 9/11 in New York. In an email to us, he wrote, "*This is a time for artists to turn dreams into reality…*". But our research also embodies, with reason, an unsettling remark made by Jacques Polieri: "*Everything which has been thought of, exists*".

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Note: see illustrations about Polieri on the exhibition catalogue "Jacques Polieri: a creator of modern scenography" (ISBN 2-7177-2218-1) and the symposium edition "Jacques Polieri: scenography and technology" (ISBN 2-7177-72296-3), printed by Bibliothèque national de France, 2002-2004, Paris.