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LES IMMATÉRIEAUX

Jean-François Lyotard

PRESENTATION

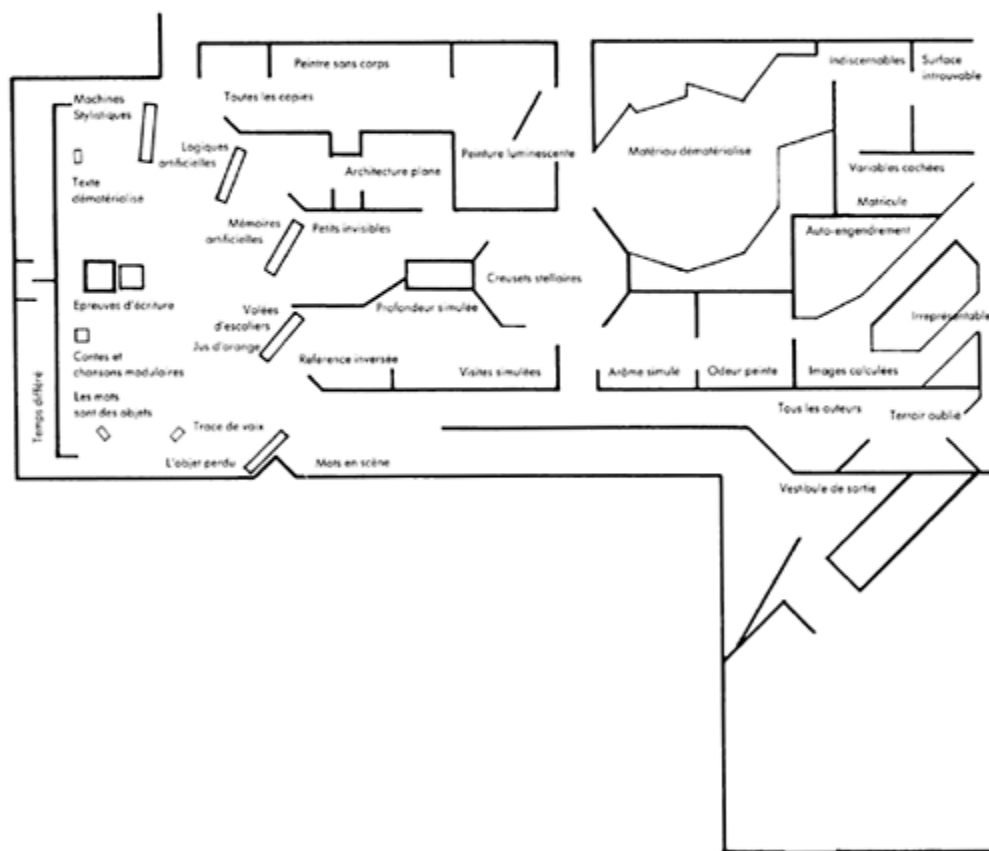
In the tradition of modernity, the relationship between human beings and materials is fixed by the Cartesian programme of mastering and possessing nature. A free will imposes its own aims on given elements by diverting them from their natural course. These aims are determined by means of the language which enables the will to articulate what is possibly (a project) and to impose it on what is real (matter).

The ambition of the exhibition entitled *Les Immatériaux* is to make the visitor realise how far this relationship is altered by the existence of 'new materials'. New materials, in a wide meaning of the term, are not merely materials which are new. They question the idea of Man as a being who works, who plans and who remembers: the idea of an author.

The aim of the exhibition is to bring this interrogation into the limelight and intensify it. The selection of the illustrations will not be made according to technological criteria, nor even anthropological ones (in terms of their social effects, their psychic effects, etc.), but rather for the manner in which they may set off and dramatise these questions. The term 'immaterial', which in its contradiction denotes a material which is not matter for a project, is proposed to convey this uncertainty.

The Intention

The conception of the exhibition will be philosophical. We will first of all ask questions, and incite others to ask questions, not only about what the material is, but also about what is associated with it: material versus spiritual, material versus personnel (in the administration, the army), hardware versus software (in a computer), matter versus form (in the analysis of a manufactured object, a natural object or a work of art), matter versus mind (in philosophy and theology), matter versus energy (in classical physics), matter versus state (in modern physics), matrix versus product (in anatomy, printing, minting and casting; the problem of reproduction and, in art, of multiples), mother versus child, mother versus father, etc.



8.1 Plan of *Les Immatériaux*, Centre Georges Pompidou, Paris, 1985. Plan in collaboration with Philippe Delis, architecte DPLG; courtesy CCI, Centre Georges Pompidou, Paris.

Note, the sanskrit *mâtram*: matter and measure (root *mât*: to make by hand, to measure, to build).

The semantic field is considerable (see, for example, the works of Bachelard). Although the intention of the exhibition is not to cover it in its entirety, nor even to focus attention on this fertile aspect, the ‘objects’ presented should nonetheless evoke passages, overlaps and slippages from one semantic zone to another. The visitor must at least sense that the material is not simply what human activity operates on, and that if it is indeed a new material, then the whole network of associations suggested above is altered as a consequence.

The importance given to this semantic aspect enables us to broaden the investigation of ‘immaterials’ along lines which would be neglected by sociological or psychological approaches or by the history of technologies; for example, on the one hand, the ‘dematerialisation’ of transferable securities or electronic money, and, on the other, Suprematism and Minimal Art in painting, or Serialism in music.

However, the broadening of the area to be investigated can only remain philosophical if another condition is met: if it is ordered according to a clear

problematic. The inevitably arbitrary examples which a wider perspective allows us to show must be subordinated to one main question. Furthermore, these examples must be presented within a strongly articulated setting—even if this setting is a complex one—by means of a group of operators (or an operational structure) which is at once simple, constant and relevant both to this main question and to the semantic field. This operational structure, which must serve to give unity to the exhibition as a whole, is examined in the relevant section below (*‘The Operator’*).

The Principal Question

It is formulated as follows: do ‘immaterials’ leave the relationship between human beings and material unaltered or not?—this relationship being understood as it has been fixed in the tradition of modernity, for example by the Cartesian programme of becoming the master and possessor of nature.

It would be wrong to reply hastily that a profound upheaval, a ‘revolution’, is obviously affecting this relation. It has long been a banality, where ‘innovation’ is concerned, to adopt an apocalyptic tone. Or to assert, on the contrary, that there is nothing new under the sun. The spirit in which this exhibition is conceived requires rather that the question be left open for the visitor, until he or she leaves, and even afterwards. It is more a case of intensifying the interrogation, and, so to speak, of aggravating the sense of uncertainty which it casts over the present and the future of humanity. It is easy, because it suits our latent ideology, to demonstrate how far new technologies, and in particular, new materials or ‘immaterials’ (the term is justified in the paragraph below on *‘The Title’*), ‘maximise’ Man’s control over nature.

If we wish to achieve an effect of intensifying the interrogation, then this comforting modern prejudice must be challenged by more disturbing views. Man’s anxiety is that he is losing his (so-called) identity as a ‘human being’. One aspect of ‘immaterials’, and by no means the least important, is that they imply just such a loss of identity. Just as material is the complement of a subject that masters it in order to attain his own particular ends, so also does the ‘immaterial’, in its contradictory concept, signify a material which is no longer matter (whether ‘brute’ or not) for a project; it reveals, for ‘Man’, a dissolution which is comparable to his own. Most of these ‘immaterials’ are generated from computer and electronics technosciences, or at least from techniques which share their approach. This very approach interferes with the identity of ‘Man’, understood as mind and will, or as consciousness and liberty. The word ‘human’, as substantive adjective, designates an ancient domain of knowledge and intervention which the technosciences now cut across and share; here they discover and elaborate ‘immaterials’ which are analogous (even if they are in general more complex) to those examined and detected in other fields. The human cortex is ‘read’ just like an electronic field; through the neurovegetative system

human affectivity is 'acted' on like a complex chemical organisation composed of information transmitted by media and according to diverse codes connected by interfaces where 'translations' take place.

As a result of this, the ideas associated with the one of 'material', and which lend support to the immediate apprehension of an identity for Man, are weakened. I mean: experience, memory, work, autonomy (or liberty), even 'creation', and more generally, the radical difference from all that is not Man. The idea of a general interaction is strengthened.

The Operator

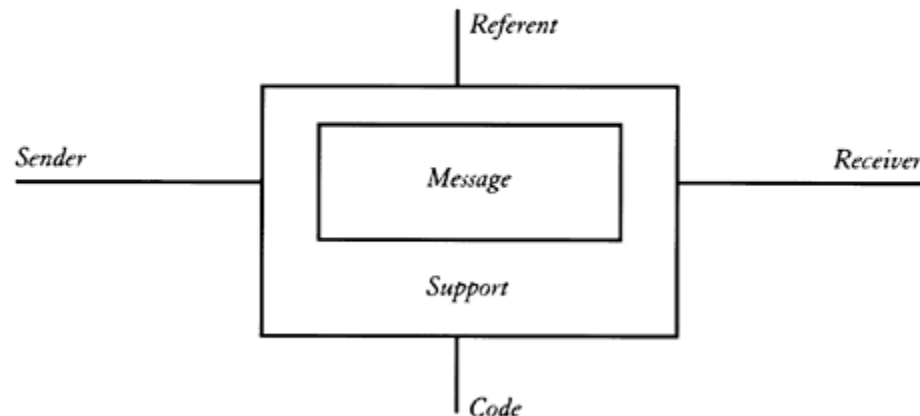
It is that of communication or of 'pragmatics' in the linguistic sense. The first formulations of it were given by Laswell and Wiener, then Jakobson. Contemporary studies allow it to be freed from its anthropological origins. An object in general or a phenomenon is considered as a message (a set of signs). The signs which constitute it are formed from discrete elements that are the differential features of the support or *material* (the model here is that of relevant features in phonology). The differential variations according to which these features are distributed form the *code* of the message. This is disseminated from a *sender* pole to a *receiver* pole, with prior encoding and subsequent decoding as the case may be. The message provides at least one bit of information on a *referent* (what is being referred to).

The general idea of interaction means, first of all, that each pole of the structure is only relevant with respect to its relations with the other poles; secondly, it means that a modification in the function of one of the poles leads to a destructuring and restructuring of the whole: in which case it becomes another message.

The Title

The term 'immaterials' has been chosen for two reasons:

– the message cannot be dissociated from the support (material), and the code itself is inscribed in the support as an orderly distribution of the discrete elements (grains)



which constitute the material (electronic waves, sound waves, light waves, elementary particles and their differential features, etc.). The material disappears as an independent entity. The principle on which the operational structure is based is not that of a stable 'substance', but that of an unstable ensemble of interactions. The model of language replaces the model of matter;

– the scale on which the structure is operational in contemporary technoscience and artistic experimentation is no longer a human one. Humans are overwhelmed by the very small, which is also the only means of information about the very large (astrophysics). This change of scale is required by particle physics, genetics and biochemistry, electronics, data-processing, phonology....

With 'immaterials', the attribution of an identity (thing, man, mind, etc.) to one of the poles of the structure appears as an error. A 'same' identity may occupy various poles of the structure.

CONCEPTION

The Principle

From the root *mât* five terms are chosen:

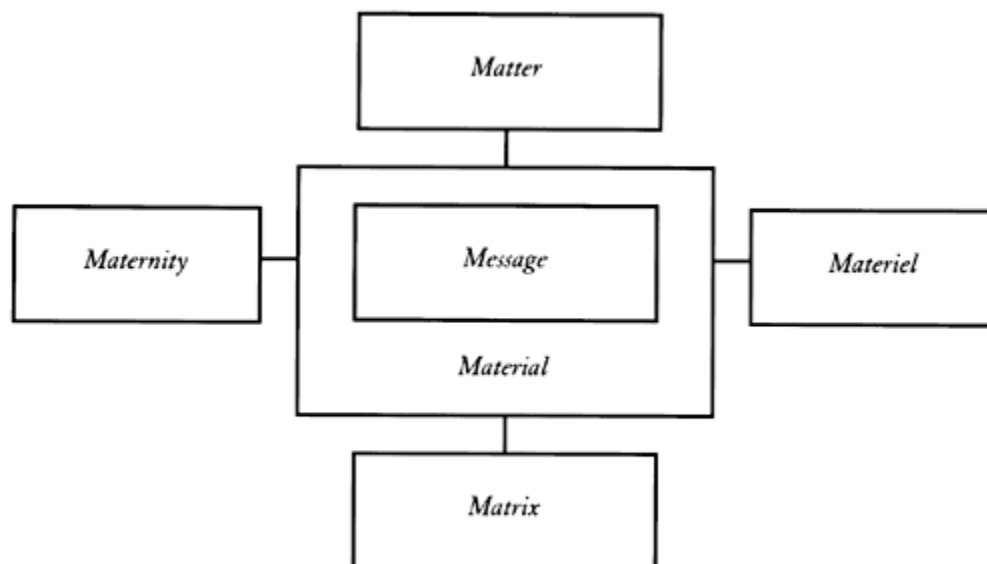
- material
- materiel
- maternity
- matter
- matrix.

These are located on the operational structure:

- the material is the support of the message;
- the materiel or hardware is what handles the acquisition, transfer and collection of the message;
- maternity designates the function of the sender of the message;
- the matter of the message is its referent (what it is about, as in the French for 'table of contents');
- the matrix is the code of the message.

In Laswell's nomenclature:

- material=through what medium does it speak?
- materiel=to what end does it speak?
- maternity=in whose name does it speak?



- matter=of what does it speak?
- matrix=in what does it speak?
('it'=the message; the signification=what it says).

The Context

The exhibition attempts to characterise an aspect of our contemporary situation, associated with the new technological revolution. Whereas mechanical servants hitherto rendered services which were essentially 'physical', automatons generated by computer science and electronics can now carry out mental operations. Various activities of the mind have consequently been mastered. Thus the new technology pursues and perhaps accomplishes the modern project of becoming master and possessor. But in so doing it forces this project to reflect on itself; it disturbs and destabilises it. It shows that the mind of Man is also part of the 'matter' it intends to master; and that, when suitably processed, matter can be organised in machines which in comparison may have the edge over mind. The relationship between mind and matter is no longer one between an intelligent subject with a will of his own and an inert object. They are now cousins in the family of 'immaterials'.

Yet technology is not the cause of the decline of the modern figure; rather, it is one of its signs. Our grief is another of its symptoms. At the end of the eighteenth century, Europe and America, in the name of the free and virtuous enlightened mind, claimed to spread light, law and wealth over the human world. After two centuries of massacres and civil, international, world wars, we are now beginning to go into mourning for this arrogance. In its scenography at least, *Les Immatériaux* should distantly echo this wise melancholy.

The 'target' of this exhibition is a precise one: to arouse the visitor's reflection and his anxiety about the postmodern condition, by means of our five questions derived from the root *mât* and applied to domains where they are most critical.

Some Associations

Some terms associated with 'immaterial' are listed here to give an idea of its thematic range. They indicate the atmosphere of the exhibition.

Immature. The modern project: from *Discourse on Method*, second part. Descartes dreams of a maturity from the beginning of life: 'if we had had the full use of our reason from the very outset'. Several models offered to a modernity without any heritage: the edifice conceived at one go by a single architect; the city 'that an engineer outlines on a plan according to his fancy'; civil institutions established by a wise legislator; the world that God alone has created and ordered in one stroke. Postmodern counter-metaphors: an infant-housing and an infant-city undergoing constant modification; the closed city broken by the great metropolises; the cosmos as immense fallout of the explosion that engulfs the measure of time.

Increate. Modern: an intelligent subject, endowed with an imagination and will, analyses 'data' in elements, and then either re-creates them (simulacra) or creates them anew (artefacts). The metaphysics and politics of a subject confronting materials. Postmodern: the human subject does not have exclusive rights in the situation of creator-author-sender; no longer are all messages addressed to him. His task: to devote the marvel of his nervous organisation to the collection, acquisition and restitution of unknown messages. A translator. A metaphysics, politics of immanence?

Immediate. Modern: to gain mastery not only over space, but also over time. To control the behaviour of an object, it is necessary to be able to arrive immediately at its pertinent variables. Quantitative analysis and synthesis to be affected in picoseconds (10^{-12} of a second). The principle of 'saving time' extends from daily life (all video systems, robots, transport, storage, pay) to knowledge (data banks, electronic files) and art (the use of the computer for musical composition in real time). The ideal of saving time lies in the absolute speed of a performative (type: 'I declare war on you') or a quasi-performative (type: 'Let there be light').

Unmasterable, immanent. Postmodern: no given is contemporaneous with its presentation, neither the star 50 million light years away, nor the elementary particle traversing a bubble chamber, nor the effective event whose traumatic influence emerges only 'after the event' and when displaced. The generalisation of the principle of movement generalises relativity, even where the knowledge of human facts is concerned. Loss of the ideal of a transparent society simple to itself. The pursuit of immediacy everywhere reveals a complexity which cannot be mastered 'all at once'.

Unsexed. The classics imagined that the difference between the sexes could be transcended by hermaphroditism and 'angelism'. The moderns use the law of this difference to reconstruct psychism (psychoanalysis). Postmodern: to achieve by

medicine classical angelism and to fabricate a third sex, a synthetic sex (transsexuals as the unsexed).

Immortal. Classical and modern: death is the falling due and payment of a debt (the rendering of the soul which has been loaned). Modern: to dissociate through biological medicine lethal cases and to treat them separately. Postmodern idea: death corresponds to definite or so-called 'vital' states of certain organs; consequently it must be curable, like a clinical accident. In deferring death, humans serve their apprenticeship with immortality, a state indifferent to life and death.

Therefore, what becomes of the subject's identity, his responsibility, his history, and his hegemony over time?

SETTING IN SPACE-TIME

Exhibition: to hold out, to offer.

(In French) *Manifestation*: to render manifest.

Exposition: to put completely on the outside.

These terms are juridical, rhetorical, political and philosophical.

The Problem

The words *gallery* and *salon* designated apartments in the Palace of the Louvre where the first exhibitions were held at the very beginning of the eighteenth century.

The exhibition of paintings is a modern institution. What does its modernity imply?

- the visitor is an eye. The way he looks, not only at the works exhibited but also at the place where the exhibition takes place, is supposedly governed by the principles of 'legitimate construction' established in the *quattrocento*: the geometry of the domination over perceptual space;
- the visitor is a body in movement. What is the aim of this movement? Is it similar to that of the 'character-forming novels' of the eighteenth or nineteenth centuries? Our young hero travels the world, has all sorts of adventures, puts them to use to test his intelligence, his courage and passions, and then returns home fully 'formed'.

Such an organisation of the space-time-subject is strongly marked, from the *Odyssey* up to Joyce's *Ulysses* and many a western;

- in an exhibition of paintings the experience of the subject is formed by one sense alone, his sight. Throughout the gallery he is offered views (*vedute*), views which are pictures opening on to sites or situations which are the 'subjects' of the pictures. By identifying these subjects, and the manner in which they are represented, the visitor is in a situation in which he can form himself by his visual experience. Gallery: an establishment of culture, that is to say the acquisition and assimilation of heterogeneous data in the unity of an experience which constitutes a subject. An obligatory itinerary;

– compare this arrangement of the visual gallery with that of the city dreamed by Descartes: the conflict between formal organisation and the disorder of the data, with victory going to the former. Once again, the modern project.

It is consequently impossible to present *Les Immatériaux* in a space-time of this nature. It is necessary to seek a ‘postmodern’ space-time. For a preliminary approach to this space—time, we take inspiration on the one hand from the scriptural practice of Diderot in his *salons*, and on the other from the intuitions of town-planners, architects and urban sociologists such as Virilio and Daghini.

When you drive from San Diego to Santa Barbara, a distance of several hundred kilometres, you go through a zone of ‘conurbation’. It is neither town, nor country, nor desert. The opposition between a centre and a periphery disappears, as does even the opposition between an inside (the city of men) and an outside (nature). You have to change the car-radio wavelength several times, as you go through several different broadcasting zones. It is more like a nebula where materials (buildings, highways) are metastable states of energy. The streets and boulevards have no facades. Information circulates by radiation and invisible interfaces.

This is the kind of space—time, hardly sketched out here, which has been chosen for *Les Immatériaux*. The eye will be deprived of the exclusive privilege it enjoys in the modern gallery. Nor will there be a clearly signposted itinerary, given the uneasy reflection which the exhibition hopes to provoke. Indeed, it is not a question of presenting an exhibition (*exposition*), but rather an ‘overexposition’, in the sense employed by Virilio when he speaks of an ‘overexposed city’. And nor is it a question of arranging the objects shown according to ‘subject matter’ or discipline, as though the delimitations from which these resulted were still intact today.

The Hypothesis

Localisation is in the Georges Pompidou Centre, at the heart of modern old Paris: the Great Gallery on the fifth floor (the highest). A rectangular space of 3,000 square metres, with two foyers (mezzanine on the fourth floor, the entrance). Level floor, outer walls of plateglass, cables and ducts visible in the ceiling, permanent foyer entrance and exit lights. In short, relatively few constraints, except for the lighting.

On this level there will be 20 or 30 radio transmitters, each one covering a carefully limited zone. Each transmitter will broadcast a soundtrack relating to one of the *mât* questions examined above (cf. ‘Conception’, ‘The Principle’). The visitors are supplied with headphones. The oral messages they receive are not necessarily instructions, but also poems, prose, questions, exclamations, quotations, explanations.... Musical messages too. Arts of time, the most immaterial.

In each zone *sites* are assembled. They are taken from diverse domains (foodstuffs, painting, astrophysics, industry, etc.), but grouped together according to

the common question which they illustrate. For example, maternity: who is the composer of a piece of electronic music? Who is the mother of a child born of an ovum impregnated *in vitro*, implanted in a 'surrogate mother' and later adopted? What is the source of light of an abstract painting? The sites may either compare two moments in the same discipline, or confront two different disciplines.

Between the zones are 'desert', neutralised regions. The visitor, passing from one zone to another, becomes an investigator; he is accosted by the voices and the music, as well as by the sites he sees. His own individual itinerary might be recorded on a magnetic memory card, and given him in the form of a printout when he leaves.

April 1984.

The examples given below are a selection from among sixty-seven different sites which may possibly feature in the exhibition, serving to clarify and to dramatise the principal question which underlies it.

MATERIAL SITES=SUPPORT

Site of Indiscernibles

The meaning of the message does not change even when the elements which constitute its support (or material) are exchanged.

The electron is indiscernible in quantum physics, just as a man in uniform is indiscernible in a functional community.

- 3 photographs of individuals: in civilian clothes in uniform unidentifiable in a crowd of uniformed men.

- Panel of 6 colour permutations (urban furniture, cassette posters)

Soundtrack: 'Belle marquise vos beaux yeux d'amour me font....'

Site of Hardware

The new 'hard' ware of 'heavy' industry. Simultaneity and simulation of projects, of supports. Multiplicity of receivers, singularity of materials.

- Audiovisual show on 16 screens.

Site of Neon Painting

Pictorial art is replacing the chemical colours of paint by physical colours.

- Moholy Nagy, *Télélumière*
 - Takis, *Télélumière*
 - Fontana, *Ambianze speciale*
 - Moree, *Neon hologram*
 - Dan Flavin, *Four neons*
 - Kosuth, *Five words in five orange colours*
 - Dan Graham, *Glass pane+mirror*
- Soundtrack: Goethe/chemical light/physical light.

Site of Second Skins

Skin as the ideal of clothing. The skin is doubled as clothing in order to improve the protection of the body and its performance.

- Protective materials for the body, synthetic skin, skin-grafting surgery, moulded works and dwellings.

MATERIAL SITES=PROPAGATION, COLLECTION, RESTITUTION

Site of Stellar Crucibles

The birth of stars. Classification of stars according to their life expectancy and cosmic fertility. The death of stars. The star as 'material for the propagation and transmutation' (=laboratory) of elements.

- 'Baby stars' on the computer of the C.E.A. at Saclay
 - The life of stars in fast forward—laboratory video.
- Soundtrack: text+cosmic echo.

Site of the Musician Despite Himself

How is a musical message set in motion?

- In a space of 10 square meters, microphones and sonars are connected to a computer which translates into music every movement within this space.

What law does it obey?

Read-out of the sound produced by the transmitter circuit+ headphones.

Site of Self-Procreation

A complex robot produces a life-size mock-up of a car, using synthetic images drawn by a computer under the control of a designer.

- Computer enhanced imaging or graphic computer, digital milling machine.

Site of the Living Computer

The best prosthesis is bio-compatible and transmits information at a cellular level.

- Video game showing three-dimensional structures which assemble themselves.

MATERIAL SITE=ORIGIN, AUTHOR

Site of the Forgotten Soil or Orphan House

The material of architecture is no longer generated from the earth.
Building no longer exists.

- Audiovisual show on building materials of the past: texture, grain, finish, etc.
 - Permits, materials exhibited as art.
 - Two series of architecture design: the architect Aalto versus present government design and computer enhanced drawing.
- Soundtrack: Kahn, F.L. Wright.

Site of the Pre-Cooked

Who is the author of a culinary message?

- The time spent preparing meals and in budgeting the purchase of foodstuffs.
 - Dramatised presentation of frozen foods and supermarket shelves.
- Soundtrack: advertising jingles.

MATERIAL SITES=REFERENT

Site of Simulated Depth

A photographic support or medium of inscription which allows its referent to be seen in three dimensions.

- Holograms.

Site of Simulated Visits

The camera-eye goes beyond the possible boundaries of the eye. It extends them and renders them complex.

- Two video disks run by a computer enabling simulation.

Site of Every Colour or Small Invisibles

Multiplication of the colours visible to the human eye (by monochromatic light waves derived from new technologies). The colours a butterfly or pigeon sees.

- Room lit by wideband or monochromatic light.

MATERIAL SITES=CODE

Site of the Game of Draughts

Transcription of the matrix of a mathematical game: an element exists if it is authorised by the rules of selection chosen by the operator of the matrix.

- Off stage a computer plays a game of draughts.
- A chequerboard is drawn out on the floor which the visitor crosses.
- The computer reacts to each new position and makes a move. In every spot a signal attests that the visitor, unwittingly, exists in the game.

Site of the Musical Alphabet

What notation is possible for the sounds, 'noises' included, that make up contemporary music?

- Reproduction of scores (or original scores) of pieces for percussion.

Soundtrack: extracts from the seminars of P.Boulez on *Percussion and Computer*.

NOTES

This text was originally published in *Art & Text*, 17 (1985), pp. 47–57.

Les Immatériaux was an exhibition conceived by the Centre de création industrielle for the Centre national d'art et de culture Georges Pompidou, of which Jean-François Lyotard was the Chief Organiser. It was held in the Main Gallery, 5th floor, from 28 March to 15 July 1985. The present dossier follows a preliminary document circulated in December 1983; it is the second statement by Lyotard of his reflection on the exhibition and its conception. We wish to thank the editor of *Art & Text* and the Centre Georges Pompidou for permission to publish this translation by Paul Smith, and for the diagrams they kindly provided.

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