From Mozart to Pixar: when creativity becomes organisational

Thomas Paris

Creativity, we all agree, is a question of men and women. Ingenious, inspired, creative, unique individuals. Mozart and Van Gogh, Orson Welles and Marguerite Duras, Stella McCartney and Ferran Adria. Among others.

At a time when creativity is being heralded as a national cause in the European Union, in both countries and big cities[1], at a time when managers and researchers have made it the alpha and omega of economic growth and development[2], one point is intriguing. It suggests that in order to promote creativity, all one really needs to do is to try to define it, or to make sure that artists are not persecuted (happily, this is far from the case).

In a context where it appears to be a crucial issue, it is essential to understand the spurs behind creativity. On an individual level, the subject of another article in this issue[3], but also on a more global level, meaning collective rather than individual creativity, the creativity of a group, an enterprise, a territory, a country. We are no longer talking about Mozart e tutti quanti, but about Pixar, Alain Ducasse, Christian Dior, HBO or vaguer collective notions like northern European fashion, great

French cuisine, the "French touch" in video games. All of which refer not to women or men in particular, but to territories or companies, often led by men or women but that almost constitute a label guaranteeing creativity. What is it in these companies or territories that makes creativity develop to a greater extent than elsewhere? Is it a simple question of imitation, of air being dragged along by a locomotive, does it require uncommon talent, or is there something else, an ensemble of elements that build an environment that naturally encourages the emergence of talent and the liberation of creativity? How does the connection occur between a creative individual who sets up a company that manages to retain and breed its creative capacity when the individual is no longer but a figurehead and a source of inspiration? These questions form the basis of research initiated four years ago, on the structures of creativity that, following on from Howard Becker[4], tries to gain a more in-depth understanding of the creative process in its collective, organisational and industrial dimensions. It deals with how creative activities are part of a world that is organised on two levels: elementary entities (groups, projects), legal entities (associations or companies), industrial sectors, even nations. This research is based on the in-depth analysis of companies or institutions that have remarkable approaches in terms of creativity, in terms of their results or their essence. It also covers more than one sector in particular so as to better understand creativity as an activity, in order to better understand the regularities, in the way it is organised. Design, advertising and literary publishing, the issues are the same…

This article intends to provide the preliminary answers to these questions, by concentrating on the organisational question. It is divided into four parts. The first evokes the paradox of organised creativity and shows how trying to fit creativity into an organisation poses problems. The second proposes a model of the creative process. The third identifies the factors that explain why a sector or company chooses to go with a certain model of organisation. The final part deals with management and creativity.

The paradox of organised creativity

Two of the hypotheses at the basis of this research have been confirmed. The first being the collective dimension of creativity. In all of the sectors observed, it is present to a greater or a lesser extent. Becker reminded us of the fundamental role played by the instrument maker in the musician's production or that of Thackeray's butler in the writer's work: he would wake him every morning for work at the same time. This can go much further: the role of the editor or producer in the creation of a book or disc is essential; in video games cartoons or fashion design, a real work organisation is established.

Notwithstanding this collective element, in most sectors the final product remains the creation of one individual, in as much as the result is attributed to them or they assume the responsibility. In addition, the capacity to articulate the collective and individual dimensions of the creative process seems essential.

This leads us to expose an intriguing paradox. The notion of organised creativity intrudes on our romantic image of creation. This is not just superficial: by delving deeper in to what creativity and organisation mean respectively, we find ourselves dealing with two worlds that are quite contradictory. Creativity involves putting shape on an original thought. The immediate question is: how can the person who is at the origin of this thought explain to others the nature of their contribution without actually producing the result of the idea themselves? In other words, how can a director of animated films who is obliged to rely on the talents of numerous cartoonists explain the drawings without actually drawing them himself? This is the key point of this paradox: the notion of organisation is based on the division of work, but the work in creating something is not easily divisible due to the difficulty of expressing the result expected from the creation other than through the creative act itself.

So, on the one hand there is an abstract world; on the other, a world based on the division of work and formalisation. Organisation is a knot of contractual relationships that impose constraints on its members as well as on outside partners. This occurs in an economic environment that imposes a certain pace in terms of production, a form of industrialisation of creativity, when creativity relies to a great extent on inspiration that can be unreliable. This is the second contradictory element.

In creativity, talent is precious because it is rare. It initiates the process; it is on this inspiration that the capacity of the organisation to respond to these imperatives depends. In fashion or couture, the issue is to bring products out at the pace of collections and shows, that means four or six times a year, sometimes more. This essential character of talent is undermined by its extreme fragility, due to the unreliability of inspiration and success. Talent must produce something, but it must be surrounded and helped to overcome or accept these periods of doubt or difficulty. We expect it to produce, but we accept that it may doubt. Not easy.

In addition, everyone knows that the creative act is free. The freer it is the more amazing it can be. The creator aims for what is beyond, incessantly. But organisation has constraints: of cost, but also of style as it has an editorial line to respect, clients and critics that have expectations. Moreover, it relies on the organisation of work, of routines, of procedures, all elements that have a tendency to influence the content of the creation.

Table 1 – The paradox of organised creativity

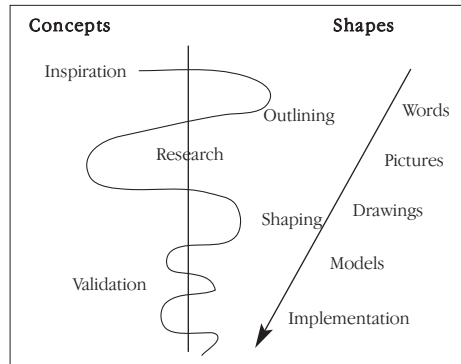| The creative process	Organisations
The hazards of inspiration (the uncertain, the uncontrollable)	Economic constraints (fixed costs, the demand for regularity in production…)
Abstract ideas	Division of work and formalisation
Fragility of talent, due to the fragility of inspiration and the positive or negative reception of their production	Talents, central assets
The great freedom of the creative process	Constraints in terms of creation: editorial line, brand image, clientele, routines that format production

This paradox is obvious in all sectors of design or the creative industries. The second confirmation is that regardless of the sector, creative activities constitute a homogenous category in as much as they share a certain number of specifics that distinguish them from other activities. The highlighting of regularities in observed situations, in the issues raised and the solutions found confirmed this. These are activities whose results cannot be evaluated in an objective manner and can only be expressed by bringing them to their conclusion. Their characteristics are up against the industrial and economic constraints of organisations. Managing creativity thus consists of making the creative process cohabit with the demands and constraints of organisation.

A model of organised creativity

An analysis of case studies from the different sectors highlights the regularities in the creative process and enables us to make a model. These processes always articulate a period of divergence and period of convergence, alternative phases of opening up and reining in, which slowly bring an idea to fruition in successive phases. There are four stages in all: inspiration, outlining, shaping and validation. These stages do not occur in a linear manner and can retroact on the previous one to make the idea progress. Brining an idea to fruition does not mean transposing it to the world of objects. It means managing to express it, as an idea has no other existence than its own shape, which contradicts what may be understood by comments such as "the director has the entire film in his or her head". We also need to note the circular, almost fractal nature of the process, at the heart of which is, using the framework provided, a phase of research that involves the repetition of all of the different stages.

The following table is mainly illustrative: it synthesises these notions of convergence-divergence, of coming and going between the world of ideas and the world of shapes and the existence of four phases.

Table 1 – The creative process

Let's examine each phase.

Division of work

The creative process can involve the participation of one or many "creatives". In publishing, for the most part, the author covers all bases: as a result inspiration, outlining, shaping and validation are no longer very distinct but intervene throughout the entire process. However, other models do exist: Alexandre Dumas was notoriously reliant on ghost writers and intervened in terms of inspiration, outlining and validation, but left much of the work to others. In fashion, in the bigger houses, the person identified as the designer intervenes at the start of the process and at the validation stage, all of the shaping work having been done by others. We come across the same system in cuisine, when the great chefs build up businesses with a number of different restaurants: in which case, they are no longer slaving over the hot stove, but outline the direction the menus should take and validate or refuse the proposals made by the other chefs. For example, this is the way Alain Ducasse functions. Thus, at the very least, the initial outlining and the final validation are always carried out by the person who takes responsibility for the work. They can be termed the "auteur".

In the most extreme cases, where design is farmed out, the signatory retains the right to "final cut". This is what happens with the system of licences in fashion where the notion of designer is often weakened in relation to that of the brand.

Inspiration

The very idea of inspiration –one is or is not inspired – underpins the incontrollable character of this phase while economic constraints mean that this phase must be "activated". With this in mind, certain devices are used to encourage inspiration: travel, immersion in artistic or cultural universes, encounters with other cultures or creative fields… John Galliano, the designer for Christian Dior Couture, travels extensively before each collection. Alain Senderens, in addition to travelling, renews himself through oenology, encounters with tea experts…

This search for an opening and for inspiration is at the heart of the process, in the phase where those who participate in the process must make proposals from within the framework imposed by the "creator". Managers work at maintaining creativity among designers by opening them up to other cultures: we will come back to this point.

Without even talking about inspiration, the need to create can simply be regulated within a regular flux that rhythms the renewal: this is the case of the system of collections and shows in fashion. It can also be created through industrial constraints (stores to supply, the high cost of stock that must be carefully managed, factories to use) or imposed by a technological or economic change in the conditions of the creative process: the variations in the cost of raw materials can for example orient the creative output of a restaurant, like Alain Senderens deciding to work with a product that is cheaper on the market for some reason. Finally, the need for novelty can simply be linked to a normal need to renewal, questioning and effort in the artist.

Outlining

The very nature of the creative act, the question of outlining –that is to say the definition of the perimeter within which the creator will carry out their research– is a delicate one. How can one express a creative idea that one wishes to carry out without carrying it out oneself? To answer this question, the creator relies on the arsenal of "simple" modes of expression available to them: words, drawings, images… At Christian Dior Couture, it is the key-words pronounced by the designer –"gothic chic" for example–, that are sometimes illustrated with images and drawings and sometimes come with stories.

References can also be used to outline a framework. Nicolas Gaume, the founder of Kalisto remembers the framework outlined for the game Sombre Terre: "We wished to create a universe inspired by Jules Verne –copper, recycled materials, steam…– and by Méliès, and our European culture: we wanted to reproduce the atmosphere of immense cathedrals built among wattle and daub houses."

The outline can thus be oriented in many ways: on the products used (materials, themes, colours…), on techniques, on the final result (rhythm, atmosphere…); on the actual creation or on the target clientele. In perfumes, the creative brief is generally at the origin of the creation. It is no longer the only model: Thierry Mugler, to create Angel, used the very personal odour of candy floss at a funfair as the starting point of his perfume. In every sector, we find creations that come directly from the creator and others that are more targeted at marketing considerations.

Finally, according to the nature of the creations, and the way in which they are mobilised, the framework is more or less easy to formalise. In gastronomy or perfumes, expressing the expected results using words and images is more difficult than in design.

Table 2 – Outlines and examples

	Outlines			
Tools	Raw materials (product, colour…)	Techniques	Result (rhythm, atmosphere…)	Targets clients
Words	"Ris de veau" (cuisine) "coppers, recycled waste, steam" (video game)	"hot liver" (cuisine)	"Gothic chic" (fashion)	Creative brief (perfume)
Illustrations			Boards (posters) (fashion)	
Références			"The smell of candyfloss" (perfume) "The world of Jules Verne" (video games)	

Outlining is necessary to encourage the convergence toward the fruition of the product but is also very precious for encouraging creative teams. The ex-artistic director of a perfumer claims that a lack of precision in the creative briefs proposed by the perfume brands to the perfumers always resulted in the lack of creativity in the work of the "noses".

Shaping

The work of the creative teams takes place using the outline as a starting point. The complexity of the means needed to bring the creation to life and the development costs render the "tool" available to the creator more or less manageable: when it is a brush or a pen, the designer retains control over the extent to which his or her vision corresponds to the final product, but creative areas where the use of sophisticated techniques and teams of people makes this more difficult to control, as in the making of a film or a video game. In film, thanks to the monitor on which the director can watch the position and acting of the actors and the shot, he or she can make changes before the actual shot, while in cartoons the result is visible only once it is finished: the manageability of the tool diminishes as the director is no longer in a position to directly shape the outcome.

In practice, the greater the distance, the more intermediary stages are needed in the shaping process, stages that rely on different objects that bring the process slowly closer to the final result, each giving rise to validation and/or reframing. These intermediary shapes can thus enable the vision of the creator to be outlined more clearly.

A number of methods of representation can be used in the creative phase, some a form of creation themselves: sketches, drawings, models…, others are used to show the structure of the designs or creations, notably in dramatic works: synopsis, scenario…

Validation

At each stage, the designer/creator/artist, the person in charge of the creation, validates the different forms that are proposed. This phase of validation is sometimes also a selection phase, choosing among competing projects. This is the case at Renault where the organisation of car design relies on a competition at every stage. A number of design projects are proposed when the project starts, then a number of models based on the chosen designs, etc.

Final validation –or final cut– remains the prerogative of the creator, but is often shared with a manager, project manager, financial investor or guarantor of a brand's image.

Sector-based specifics and organisational models for creation

The general model for the creative process describes all of the situations that can arise in very varied sectors. However, the divisions of

work that arise from the process vary from one sector to another, and even vary within the same sector. The five stages can be undertaken by the same individual or not and by the same company or not, depending on the situation. Today we have in-house design departments and outside design agencies who work for companies. In film and publishing, commissioned works have always existed, meaning projects with a pre-existing outline to which the creator must stick.

There is often a dominant model, but others can work alongside this model. The dominant model can change over time and be replaced by another. Haute couture brands used a licensing system for a long time. But now, haute couture houses have re-integrated their design. In perfume, the dominant model for a long time was to externalise the creative aspects to perfumers who worked for all brands. Today some brands have brought the creative side back into the company.

In this part we will try explain the differences that can exist in the organisation of the process according to sector. We have managed to identify three factors: incommunicability, the complexity of the production process and the nature of the diffusion constraints.

Incommunicability

This is linked to the nature of creativity itself; incommunicability translates the degree of difficulty in expressing the result the designer/creator wishes to obtain using the usual communication tools. This difficulty is greater when dealing with perfume that uses a sense for which there are few words, than for example a literary work whose content can be expressed using words.

The complexity of the production process

The complexity of the production process is relative to the creative techniques. The tool used by the designer/creator to express him or herself can be his or her own body: the hand of a sculptor, for example. This can also be a complex layout of technical tools, composite teams with differing skills and human beings: for example, actors in film-making. In the case of the former, the different stages of creation are closely linked, each movement of the sculptor's hand can incorporate all of the phases while in the latter, and the work is subject to the economic constraints of organisation.

In general, the more complex the working methods, the higher the development cost at each level and the stricter the control at each level also. When dealing with a creation that is directly made by the creator, the divergence-convergence process is circular, but when the production process is complex, it is much more punctuated. When the production process requires varied skills and sophisticated techniques, the process is more truncated, and includes more stages.

Complexity can intervene at any stage in the creative process: for example, a film can be shot using a script written by one person only.

Diffusion constraints

The nature of the diffusion/distribution constraints of creative works brings industrial considerations into play. They translate the weight of the constraints imposed by the economic players in charge of distributing the creative work. When the demand for renewal is high, there is pressure on the creative process as it must conform to a strict pre-established calendar. When, in addition to this, the company has integrated its creative process –notably when it wishes to control brand image–, the existence of a regular, well-identified clientele means that the constraints are felt more directly by the creative teams. In this case, the initial outline may include the notion of brand image, while in other situations, things are left open.

Varied forms of industrial organisation in creation

Overall, the creative process follows the general schema proposed and can give rise to very varied forms of industrial organisation (or value chains): creation/design may or may not be integrated, the start of the process can come from the creators themselves or from outside.

The question of how the talent is "captured" –that is to say the way in which they become involved in a new project– can be split into three different models. The first is "auto-capture": this is the case in publishing –notably in general literature– or in musical creation. It is also the case in artistic activity, even this is not the only model. In audiovisual activities, for example, in addition to the traditional model where a scriptwriter originates a project, there are others where a writer is hired to work on a particular subject or theme. A third model exists finally where the brief is not supplied by the company that will develop the project but by an exterior client: this is the case with perfumes.

Table 3 – Models

MODEL	Author/ artist project	Producer's project	Internal commission	External commission
INSTIGATING ENTITY	Creator	Creative company	Internal client	External client
EXAMPLES	Literary publication	Video game	Car	Perfume

This shows that in addition to the structural constraints that we have just seen, the types of organisation of creation include a conventional factor also. This result is important as it leads us to examine the current models and identify to what extent these models adhere to strict constraints and are the result of convention, that when questioned could give rise to new perspectives.

Thus, behind the general model of the creative process are varied forms of industrial organisation. Three ideal typical models stand out: the "romantic" model, the integrated model and the externalised model (see table 4). This does not constitute an exhaustive partition of forms of organisation but it does illustrate the variety. In the romantic model –literary publishing is the archetype–, creation is almost completely externalised. In the integrated model, it is completely taken care of inside the company that also deals with its commercialisation. When externalised, it is in the form of orders to a specialised company.

Table 4 – Three types of industrial organisation of creation

STAGES IN THE PROCESS	INITIATION AND OUTLINING	DEVELOPMENT AND FORMALISATION	VALIDATION AND LABELLING	EXAMPLES
Romantic model	Creator	Creator	Creator	Literary publishing
Integrated model	Creator	Internal design teams	Creator	Haute-couture, automobile design
Externalised model	Brand	External design teams	Brand	Perfume, advertising

This typology presents the dominant models that in reality are less cut and dried. It is pos-sible to identify creative projects that correspond to each of these models in each sector, some having dominant models that vary enormously relative to the geographical zone or era. This is very much the case in the film industry which functions differently in France compared to Hollywood and the Hollywood system works differently now than it did thirty years ago.

Managing design and creation: diverse issues

In management terms, according to the choice of model –or the one resorted to– the issues are different. Thus in organisations where projects are developed spontaneously outside the structure in terms of selection and final formalisation –as is the case with literary publishing–, the company must organise the ongoing detection and selection of projects in

order to ensure a regular supply of creations. In organisations where the talent is integrated, it must be detected, trained, kept loyal in order to organise the renewal of its inspiration and resources and to manage its failures. For those who farm out their design, the issue is one of brand management. Whatever the case, the choices made will have an influence on creativity, that is to say on the nature of the work produced.

Creative projects: managing the divergence-convergence balance

At this stage of the analysis, the question of the link between creation and structures becomes more refined: the question now is to what extent the structures in place influence the processes used in creative activities and their results. We've already said that we are concentrating on the organisational level of structures for the purpose of this article, leaving aside the institutional and industrial areas.

Managing creativity is not our point here. Or, in any case, it is not expressed in these terms. Managing creativity supposes that there is a team available and that one tries to extract their best. But, as we have seen, structuring creativity involves also a capacity to organise the detection and renewal of talents and projects. One does not manage a project; one manages in a perspective of abundance (divergence) in order to have enough material from which to choose. The work of an editor is not just to take a manuscript and to try, with the author, to make it better. It consists of choosing a manuscript from the multitude of manuscripts available. It also involves accompanying the authors in their inevitable periods of self-doubt.

In this part we will cover the specific issues that arise in terms of managing creativity, and some of the solutions applied by companies in the sector. We will do so in two parts: by first of all concentrating on the process itself and the management of divergence-convergence, moving on then to examine the companies.

Outlining

Outlining brings convergence immediately: by definition, it outlines the field in which the creators are to carry out their work. In practice, it can take various forms: a design brief, a perfume brief, a theme-based orientation in the search for ideas for new services, broad principles in the construction of a new restaurant, key-words or posters in fashion, a description of an atmosphere in video games, history in haute couture and video games… While the forms differ, they all rely mainly on two artefacts: words and images. These outlining approaches, far from reining in creativity, can on the contrary encourage it. An ex-artistic director for perfumes realised that imprecise and general briefs proposed by brands did not encourage creativity among the "noses" and undertook the task of creating a language to encourage more precision. An ex-director of collections at Celio saw the creativity of her teams increase when she introduced a precise framework for the design of the collections. Words, wording, stories are initial idea makers. What is important in this stage is to open up creativity without formatting it.

Managing divergence

Managing divergence involves methods or forms of organisation that use openness to different cultures in the creative process mostly aimed at enabling the talent to think outside the box and call into the question their constraints. We can identify three types: immersion in very varied universes; confrontation with other universes; shifting the talent out of its "comfort zone". The "trend missions" at Renault design are an example of the immersion method: the designers are sent to spend time at the heart of cultural events. Again at Renault, designers are asked to work on watch design or boat designs to interact with designers in that area, and the design office opened branches in India for example to send designers to "freshen" their ideas. Pixar, the animation studio, recruited Brad Bird, a director who came from traditional cartoons in order to renew their approach.

As for the third type, the founder of the communication agency La Chose, uses card games at creative meetings so that by imposing original constraints he enables the participants to move away from their usual thought patterns.

When design constitutes but a part of a company's activities, the talent is often isolated from the rest of the company, sheltered from all the constraints (technical, marketing…) in the divergence phase. The head of design at Renault claims the right for his designers to be "bad boys", to transgress. The exclusion of all constraints is also encouraged at BETC, where the head of the team insists not on client relations, or speed, but on work of which they can be proud.

Other approaches based on confrontation contribute to organising divergence: the teamwork that enabled an ex-artistic director of a perfumers to avoid the tunnel vision of the creator; the more or less formal organisation of time to enable exchanges: brainstorming in advertising, meetings that outline new restaurants or animated films.

Very strict work schedules appear to work against divergence as the creative process is not linear so the implementation and shaping phases and the permanent confrontation between concepts and forms can be a source of inspiration.

Convergence

Convergence intervenes from the very start of the creative process. Bringing together a team is already part of the convergence phase in as much as the choice (if there is a choice) of the team, designer/creator, orients the creation in a certain number of directions.

Organising this means ensuring the project produces a result in within the deadline agreed to a greater or a lesser extent. This means that beyond the traditional approach of project management –schedule, intermediary meetings to validate different stages–, there are other types of constraints to take into account: technical and economic feasibility, format, and ergonomics.

The integration of constraints relies on two distinct modalities. On the one hand, integrated teams that function in workshop mode, in which the different professions can meet with the different constraints they bring to the table. In these workshops, the convergence-divergence process is in constant motion: this can be the case for example in video games where technical staff and designers involved in all projects are constantly confronting their ideas with the question of technical and economic feasibility.

Another way of working is to isolate the creative talent and to bring the constraints into play at a certain stage in the process. This can be the case in building for example: the architects design the project before handing it over to the companies that will carry it out. However, working practices seem to be changing as architects now tend to work in tandem with the builders for more effective results[5].

Choosing one or other of these modalities will tend to favour effectiveness or creativity, as the example of the Alain Ducasse and Chanel association shows. They have created a restaurant together and while the former tends to formalise the constraints linked to running a restaurant, the creative talent at Chanel works in secret and reveal the collection on the day of the show.

In creative projects that are collective, convergence consists of making sure that the different visions the participants have of the finished product converge. One of the major obstacles to these creative activities is the difficulty encountered when explaining precise expectations and communicating needs in creative terms. Three factors contribute to the successful convergence of viewpoints and talents: numerous exchanges, intermediary mock-ups and time. The notion of acculturation is very important: as words are not enough, they can come to mean something in a context of shared culture that is created over time. This can explain the importance of the tandem of manager/designer in creative activities the best examples of which are Domenico De Sole/Tom Ford or Yves Saint-Laurent/Pierre Bergé. By relying on a strong relationship, the tandem internalises the communication difficulties encountered in creation.

Another important factor is the length of time given to teams to enable the construction of a common culture and encourages collective work and communication. When creation relies on non-permanent organisations, as can be the case in cinema and theatre, the constitution of a team that can work and create together takes a certain amount of time.

Managing creative companies

Creativity needs to be managed on many other levels than the creative projects themselves. A company's capacity to organise an abundance of projects upstream, to identify, train, manage, render loyal talent, to garner economic management tools... is part of as many structures that will influence the creation that it will produce. Three important points in the behaviour of a creative company are present: managing abundance, talent and the economic evaluation of creativity.

Managing abundance

Abundance is the inherent necessity in the creative industries that comes from the idea the "nobody knows"[6]: on the one hand, the production and distribution structures need constant and regular content to feed their networks and to make their money back; on the other, creativity is not an activity that has a foreseeable result. Uncertainty as to the result leads to an overabundance of projects relative to the actual needs of the market and by the establishment of selection systems at every stage that can come into play at the start, in the middle or at the end of a project.

Abundance can be organised within companies or, on the contrary, left to the market. In publishing, music or cinema, it comes into play before business: aspiring talent provide the abundance by spontaneously creating and submitting their work to production outfits. In the case of automobile design, it is internally organised: the designers at Renault, for example, participate in internal competitions on every project.

Managing abundance and selection in companies can happen at each stage: before the

project starts when they decide which projects they are going to work on; during a project where, as we have seen, through the shaping choices that they make at each stage; at the end of a project, in general when the creations come from the market. According to the abundance that has been organised internally or taken care of externally (by the market), the devices used to organise the choice differ. When the abundance is left to the market, companies must be able to attract projects and talent and to choose well. The organisational devices mobilised can have an influence on the nature of the creation.

In publishing for example, the use of a reading committee or letting editors do the selecting will lead to different results. The reading committee will perhaps lead to a more consensual, less audacious production and could also lead to negotiation issues that go beyond the strict framework of judging a text. The other device –letting editors choose–, by eliminating the justification imperatives, will lead to more "love matches" but, at the same time, will generate a higher level of risk, as the editor is taken up in a relationship of seduction with the author.

So the trade-off works like this: the more filters used (programming committee, reading panels…), the less risk is taken but the resulting production is consensual and lacking in audacity. At Radio Nova, the head of musical programming makes his choices alone even though he must defend them to the collective. The composition of commissions, the profile of those in charge of selections… will orient the type of production. The question of the selection mode is closely linked to the manner in which the company then accompanies the projects: experience confirms that the choices for which one person takes responsibility are coherent with close accompaniment while choices made collectively give rise to a lower level of accompaniment, as a part of the risk has already been taken care of by the collective dimension of the selection process.

The necessary organisation of abundance has two corollaries in terms of management. On the one hand, this abundance must be managed, that is to say must give rise to selections,

and in certain cases the accompaniment of the candidates whose projects were not chosen. On the other hand, it must contain economic management devices adapted to a configuration in which "waste", with no negative connotation, is an integral part of creation. We will deal with managing failure and managing waste in the following sections.

Managing talent

Recruiting talent cannot rely on formal criteria, as talent is evaluated subjectively even though, in some sectors, other criteria are give more credence, like the ability to work with a team, curiosity and openness of mind… Those who detect or manage talent constitute another category of talent themselves. This aptitude is not something one learns either, and internships as an opportunity to affirm this talent are essential. Training can take place at school, learning techniques and in the field with a mentoring situation in a small structure.

In general, time is essential in order to let talent bloom or affirm itself, whether this be the creators themselves or those who discover them.

There are a number of channels available to identify potential talent, the rule being to leave no stone unturned: competitions and festivals (young talent at Cannes, short film festivals, awards…) unsolicited candidates or projects, formal or informal networks used to detect a contact, a casting session, a provincial theatre… Three types of device are used; researchers, individuals sent out by companies to find and recruit talent wherever it is on display; independent agents that are the interface between talent and companies and do their own detecting; informal networks, a device that works in all sectors.

In addition to these three active modes of detection, there are also the "passive" modes, used by companies with strong public images like Nova who let projects and talent come to them. In addition, the same strength of image means that the first level of selection is carried out by the candidates who censor themselves. This mode of passive detection means a com-

pany must have the capacity to study each of the projects that come in.

Managing talent must take into account the "failure" aspect, an integral part of the creative professions: both because the success of a production is never guaranteed and because the creative professions work on a very selective model. When talent is part of a company, the company must manage this feeling of failure. Pascal Nègre, the CEO of Universal France, explains that the very nature of the profession of musician composers that involves soul-baring and constant confrontation with the public demands a huge ego but is also counterbalanced by fragility when faced with failure or a drop in success levels. Patrick Le Quément explains to designers whose projects are not chosen that nevertheless they did contribute to the collective effort and, as such, to the projects chosen. Smaller structures where the opportunity exists for a close relationship between talent and managers can be a solution. Pascal Nègre compares a label, the elementary structure inside a music major to a village. At Renault, design failure management (or recharging batteries) is managed by sending designers off to satellite centres and also thanks to "concept cars", vehicles that are not designed for production so that designers can work on a broader range of projects.

The economic evaluation of creativity

While the convergence phase that results in productions to be marketed works in tandem with criteria of economic evaluation, it cannot be disconnected from the divergence phase, that of the production of ideas, that is much more difficult to evaluate. Traditional economic evaluation, based on notions of product and turnover, seems to be inadequate to gauge the reality of creative companies that are more in tune with notions of a collective, catalogues and long-term results.

The capacity creative companies have for making financial imperatives take a back seat to editorial choices is a fundamental one for many creative companies. The case of Nova is a perfect example: the constraint imposed by

the owner of the radio station on his employees is not to make money, but not to lose money, the main point being that the company should not lose its soul. This can be seen in the importance given to independence, an independence that must be mitigated by financial necessity linked to the nature of creative activities.

One difficult point does arise here; on the one hand there are the small structures that are not in a position to maintain the abundance necessary to creation. On the other, the majors, that is to say, rules, routines, barriers, constraints, all hindering creative freedom. Of course, creation can be isolated from the rest of the company, gathered together in small structures within big companies. But things are not waterproof; creativity will always thrive better in small, fragile structures.

Conclusion

While creativity and organisation work in opposite ways, they can be reconciled. An understanding of their respective methods, the way they interact, the way the latter plays with the former, is full of valuable information and can be put to good use in creativity management. Creativity can be managed –behind the creative process, there are mechanisms that interact with organisations–, but the danger is to presume it can be managed like any other activity.

It is just as dangerous to consider that creativity must be left to the "talent", that all evaluation is doomed to fail, that only a few formidable managers can handle this type of activity.

In as much as it is part of an organised universe, creativity can be managed on condition that the system is thought through in terms of what the universe should be, on the devices used, and the effects this will have. It can be managed globally, in as much as these universes are interlinked: projects in companies, companies in industry. We have neglected other spheres of creativity here, but the fact is that creativity relies on the genius of a few, on the capacity of companies to create structures that encourage creativity, but also on society's capacity to produce creative individuals, to detect and train them, on the existence of distribution structures that will bring their creations to the market and defend them. As such, creativity must also be managed on a public level.

While we have in part covered the paradox of organised creativity, by showing how this might work, it is true that it remains a delicate enterprise that relies on a fine balance. Creativity cannot be taken over by machines, genius and individual talent can rest easy. Pixar needs Mozart. Who would contest that?

Thomas Paris
CNRS, GRG Ecole polytechnique

1. In addition to the Lisbon strategy, we should also mention the pioneering initiative in the U.K. where the government set up a type of observatory for the creative industries making them a political priority (Ministerial Creative Industries Strategy Group, "Creative Industries Mapping Document", Department for Culture, Media and Sport, United Kingdom, 2001). We should also cite Maurice Lévy and Jean-Pierre Jouyet, *L'Economie de l'immatériel. La croissance de demain*. Rapport de la Commission sur l'économie de l'immatériel, Paris: Ministère de l'économie, des finances et de l'industrie, 2006.

2. Certain regional development economists have observed the influence of factors that are linked to the geographical environment –demographic, sociological, and cultural– that can influence the creative dynamics of a territory, that is its capacity to attract a "creative class" and generate new projects: Richard Florida, *Cities and the Creative Class*, Routledge, 2004. R. Florida, *The Flight of the Creative Class: The New Global Competition for Talent*, Harper Business, 2005. Martin Kenney and Richard Florida, *Locating Global Advantage: Industry Dynamics in the International Economy*, Stanford University Press, 2003. See also Chris Bilton, *Management and Creativity. From creative industries to creative management*, Blackwell Publishing Ltd., 2007.

3. See the article by Valérie Bobo and Pascal Ract.

4. The sociologist Howard Becker published "Art as collective action" in 1974, an article that picked apart the romantic vision of creativity and integrated artistic activity into the realm of collective action. In doing so, he opened the floodgates for more research at the crossroads of economics, management and sociology, on the process of the creation of cultural products. One of the big results of his work, brought together under the term "institutional approaches to art", was the way the research developed the fact that cultural goods were also the product of a socio-economic organisation weighed down by varied financial and technical constraints (Michael Baxandall, *Painting and Experience in*

Fifteenth Century Italy. Oxford, Oxford University Press, 1972), institutional struggles to gain recognition (Pierre Bourdieu, *Les Règles de l'art*, Paris, Seuil, 1992), conventions specific to each art world (H. S. Becker, *Art Worlds*), contractual issues (Richard E. Caves, *Creative industries. Contracts between art and commerce*, Cambridge, Massachusetts, and London, England, Harvard University Press, 2000).

5. Thomas Paris, "Le cas de Bouygues Habitat. Le projet de logements "René Villermé"", in Ben Mahmoud-Jouini, S. (éd.), *Co-conception et savoirs d'interaction, Plan Urbanisme Construction Architecture* (PUCA), 2003, p. 211-225.

6. According to Richard Caves. See R. E. Caves, *Creative industries, op. cit*.