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# THE RISE OF DIGITAL MANAGEMENT

FROM INDUSTRIAL MOBILIZATION  
TO PLATFORM CAPITALISM

François-Xavier de Vaujany



“Francois-Xavier de Vaujany has effectively re-written the history of management in our digital age, and possibly also pre-saged its future – this book should be read by anybody with hopes or fears about where our technology might lead us!”

**Matt Statler**, *Richman Family Director of Business Ethics and Social Impact Programming, Clinical Professor of Business and Society, NYU Stern School of Business*

“A great book that shows once more how the history of management is profoundly linked to geopolitical and institutional orders. The analysis of the contemporary digital revolution adds a piece to the story of how management creates structures of wanting and desires, hope and beliefs.”

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# The Rise of Digital Management

This book analyzes the history of management, placing it in perspective with both American history and the genealogy of digital technology. Focusing on the years of industrial mobilization in the United States (from 1937 to 1945) and their extension into the Cold War, it shows particularly how “scientific management” was reconfigured and re-legitimized in favor of a new profoundly American geopolitics. In a context where the future was at a standstill, this research also explains what became of the managerial processes at the heart of capitalism from the 40s onwards: the shift from a managerial capitalism of calculation to a narrative capitalism made up of “desiring machines”. This digital management no longer simply contributes, along with others, to unveiling and revealing the future. Aligned with the American obsession with novelty, it is the very process of revelation and unveiling, with managers and consumers alike becoming the intersecting subjects of desires borne of managerial apocalypses.

To explore this period of American history, the author has combined a triple narrative anchored in three types of archives: an intimate history of this reconfiguration from the presence in New York of Saint-Exupéry, Burnham and Wiener; a description of the great historical moment of industrial mobilization; and a philosophical speculation about reconfiguration and its links to American history.

**François-Xavier de Vaujany** is full professor of Management and Organization Studies at Université Paris Dauphine-PSL and researcher at DRM since 2010. His research deals with the societal and political dimensions of (new) ways of working and their management. He is particularly interested in the time and space dimensions of (new) ways of organizing work in our digital societies. By means of historical approaches, ethnographies and qualitative experimentations, he has thus explored various organizational phenomena such as major industrial companies, universities, maker spaces, coworking spaces, digital nomadism, investment banks or old religious organizations.

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# **The Rise of Digital Management**

From Industrial Mobilization  
to Platform Capitalism

**François-Xavier de Vaujany**

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*To my little prince.*

*To you, who never stops questioning the world.*





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# Introduction

## Informing a Depthless World, the Great Consequence of Our Digital Management

Google, Amazon, Facebook, Microsoft, Apple and a few others have become our new oxygen, that truly pure air we would not think to question. They have “digitized” everything we do. With our mobile phones, tablets and connected devices, digital technology is now as close to our bodies as can be. It uses us as much as we use it. Often without our knowledge, it produces infinite information and traces of our behavior. We assume that it is passive and obedient, confined to moments of “use”, skirting our private lives with disinterest. More often than not, however, it is an active and pervasive presence.

The year 2018 was a veritable revelation of its excesses. The media denounced Facebook’s contract with Cambridge Analytica to build influence strategies using customer data, Google’s ambitions to manufacture drones for the Pentagon, projects linking Amazon, IBM and the American police to the development of facial recognition technology, and Microsoft’s collaboration with the US immigration authorities. In all those cases, the strategic choices made by major digital players were severely criticized.

But the issue of digitality lies not only in the extraordinary nature of these encroachments. It is also in everything that digitality does without leaving the path of our ordinary life, making us complicit despite ourselves. Digital technology assigns roles or statuses, allocates resources, prioritizes information, animates processes, transforms experience into data and services and produces values amplified by its connectivity, which are all functions traditionally performed by management. It does this instantaneously, removed from the temporality of “human” thinking.

The techniques of Google, Facebook, Amazon and Apple are so simple. They are our transparent mediations within the world. We all feel like we are conversing directly with our data, with our loved ones, with our tools. Digitality is fading away to better accompany and control us. With the techniques of “quantified selves”, digital technology even goes as far as to measure and categorize our entire physical, biological and social being. Our individuality has turned into a digital event.

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Symmetrically, this servility of demand relies on the servility of supply: that of hundreds of thousands of “click workers”,<sup>1</sup> all the little hands on the other side of the screen. They collect our data by the mile, aggregate and encode it. They feed the learning process of artificial intelligence tools by qualifying hundreds of photographs on their screen. In other words, they ring our doorbells to bring us products we bought online, sitting on our sofa. The happy immediacy of some is thus sometimes the painful duration of others.

Today, everyone has their own take on how we got here. Some point to the failure of our regulatory bodies. Others point to the ethical problems that should be addressed by management and politicians. Others yet, point to strategies and public policies likely to moderate their consequences on our democracies. But in addition to the (abundant) analysis of the crisis there is a further crisis of analysis. To understand what is at stake in the link between management and digitality today is not enough. Nor is it enough to understand its remote history by isolating it from the contemporary period. Nor is it even satisfactory to envision scenarios about the future developments of digital technology to better control it in the present. Above all, we need to give our speculations more *depth*. We need to rediscover the depth of experience, which management and digitality have, themselves, distanced us from. To propose a first intuitive path toward this question of depth, it is time to invite my readers to dine with two very nice guests ...

### A Short Story of Pizza and Lost Depth

One evening in 1984, Jean-Jacques Annaud is meeting Umberto Eco for dinner at his home in Milan. The French director is adapting the famous novel *The Name of the Rose*,<sup>2</sup> a book that describes a series of murders committed in the 14th century at an abbey in northern Italy. The key to the mystery revolves around a large tower, the *aedificius*, which contains one of the largest libraries in Christendom. One of its books seems to be the motive for the crimes. To unmask the murderer, William de Baskerville, hero of the story, must recover the grimoire, assisted by his young disciple, Adso de Melke. The library, reproduced in the novel as a “literary map”, is a gigantic labyrinth sheltered by the tower. Two monk librarians protect the knowledge dutifully produced and reproduced in the *scriptoria*.

At the time of the meal with Eco, Jean-Jacques Annaud has already started building his sets. The script is far along, as is the storyboard. But the director is having a hard time with the tower and labyrinth.

In a narrative tightly focused on the main characters, the tower cannot be in a corner of the site as described in the book. It must be visible as soon as the two heroes (Adso and Guillaume) reach the monastery. With the

configuration of the place as described in the book, Eco's narration paradoxically does not work. The building is therefore repositioned in line with the entrance porch which makes the opening scene much more fluid.

A more delicate problem persists, however. Annaud had started building a model of the labyrinth. But the volumes imagined from the details given in the novel do not fit with the size of the tower, much too small by comparison. This produces a flat experience that says nothing. It renders the characters, places, situations and mobilities all mute in relation to the plot. Annaud needs a rhythm that is impossible to provide in this setting full of angles and corners. He cannot make the multiple events (that must be placed visibly in the same shot) interact. And an aerial "tracking shot" of his actors running through the maze would kill the meanders of the labyrinth necessary to the atmosphere of the film.

Mid-dinner, however, the director is struck with a flash of inspiration while looking at the pizza he is sharing with Umberto Eco: the labyrinth cannot be flat, not completely! Like the steaming food in front of him, it needs thickness, folds, edges and most of all, vitality.

Around the floors of an immense set, Annaud and his team decide to build staircases inspired by Maurits Cornelis Escher's endless staircases and the imaginary prisons of Giovanni Battista Piranesi. The production designers thus work on the volumes, meanders, textures and lights of the labyrinth. The staircases of the final set are not really vertical. They do not go up. Rather, they have a depth, that of a strange movement with no overall direction. They are a maze of aberrant movements. As he cannot build and decorate the hundred or so rooms in the novel, Annaud decides to have only three of them made. They are then decorated and arranged according to the needs of each shot. By the very movement of the cameras, the sequencing of shots, the lighting, the director transforms each of these rooms into movement. This basis will allow a certain continuity in the discontinuities of the book's quest, a repetition in Adso's and Guillaume's wanderings, a repetition within their differences.

With these staircases devoid of destination and these rooms forever leading to the same place, Annaud creates more than an illusion. He produces an image in which events engage in meaningful dialogue.

He shapes a world with its own laws. The actors, objects, crew, spectator: a whole collective that must be used to compose on the surface of this contrasting experience. Only then, does the quest for the forbidden book take on its full meaning. It takes on all the senses. It scatters in all directions. The actors, objects, spectators, all of them can get lost in this space without beginning or end. The new space allows us to explore the visible and invisible, areas of light and shade. For that matter, the poetry of the place can manifest for both actors and spectators. The openness of the volumes also encompasses the full events of the labyrinth, a place where



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one gets lost without knowledge. Much like the “book that kills”, the labyrinth can become fully active. It can mislead us. It openly acts to lose us. *Because it has depth, this place can recreate itself* in the depth of its volumes, of its mirrors and this darkness waiting for light, the depth of its exploration during a hesitant walk, it is alive like the entire setting of the plot. The protagonists thus regularly feel observed. The very walls of this accursed abbey are watching them. Through some select shots between books, statues and around corners, the director puts us in the shoes of a voyeur, as much as a spectator. A very accompanied voyeur ...

Annaud's pizza has all the depth of this experience. In its first movements, it is only squashed dough. It means nothing to the appetite of the customers. Not yet. On its edges, it almost merges with the table. It is invisible to the eyes and the palate. Topped and baked, however, the pizza takes on a certain depth. All the ingredients are present and active, the crust, tomatoes, olives, chili and pieces of raw ham ... They will delight the tongue, which will soon feel the texture and taste, experience the thickness.

Between each of these ingredients, the event of mixing awaits us. That unmistakable taste, of a pizza generously topped and well baked. The edges of the pizza make the rest of the world invisible, absent in and around the event of the meal. Likewise, there is nothing under the pizza, only this table that will become visible once more when the waiter takes the plate away. If there is nothing beyond the edges and nothing underneath, well ... as below, so above. The pizza is no cake. It is nothing more than these ingredients spread out on the same surface. In its present form, it is only the clear promise of all the little things that make a pleasure last. All these flavors are often already familiar. These little bursts, tingles, shimmers come soon to dance across our palate. It is also a hint of the promise, that of a likely surprise to come. We have all eaten numerous pizzas. We like to find the familiarity of that experience. But the really good pizza may place a slight twist on this repetition. The one that can only be found in the oven of an old pizza maker in the most popular areas of Naples or, conversely, in the kitchen of a starred chef who likes to reinvent the most classical of concepts.

Pizza is that moment when it feeds us, but it is also much more. It is conviviality, an experience shared. We sometimes taste our neighbor's pizza. From it can emerge the memory of another moment with relatives, friends, colleagues. It tickles our appetite all the while inviting us down the path to nostalgia. Similarly, it can be an atmosphere. That of a small restaurant room where you feel “at home”. The present of a pizza, from the moment it is ordered to the moment it is digested, is thus inhabited by multiple pasts and futures more or less in dialogue with each other.

In the wake of this gustatory tangent, it may be tempting to define the depth of experience from a more philosophical perspective, especially from the experiential philosophies of Merleau-Ponty<sup>3</sup> and Gilles Deleuze.<sup>4</sup> For

the former, the depth of experience is nothing but the invisibilities necessary to produce our visible experience of the world. To act in the world, we need to blot out the bulk of it. Otherwise, we would drown under the sounds, images, smells that our body keeps experiencing. What does not happen is as important as what does, in and through our senses and our embodied relationship with the world. More metaphysically and radically, Deleuze relates the depth of experience to the multiplicity of events at stake in the happening of the world. It is folded within the world to constitute its present and a memory thereof that continuously define and redefine a very fragile and provisional outside and inside. Depth is always in the world itself, rather than a perception or a consciousness of it.

Both for Merleau-Ponty and Deleuze, the depth<sup>5</sup> of experience is anything but an absolute spatiality of the “underneath”, of the “hidden”, of an invisible force to be mastered. *Invisibilities or folds produced by movement itself, it is rather this habitual temporality, this background of past and future that all experience needs to make its space and its duration.* In its thickness,<sup>6</sup> experience settles to become what it is. It thus continually reconfigures past and future events. Experience never unravels. It gives itself meaning through experience in the present.<sup>7</sup> Intense and alive, adventurous and wandering, it is pulled forward and extended by its own ambiguities, never fully overcome. History thus has no hidden ends or roots. On the contrary, it never ceases to begin again, and unfold itself on the full surface of its present. But to reveal itself, it must, in the same movement, make itself invisible and refold itself.

At the crossroad between management and digitality, experience gradually loses its depth. Digitality never reveals what it makes invisible. The invisible is the place of a value that cannot unveil itself as such. Money is made in silence. Front to back, the entire experience is transparent. Digitality transforms the imaginary into immediately accessible utopias. The future emerges at our fingertips, typing or sliding, rather than from our whole being, it passes by without being deeply desired and expected. Moreover, digital techniques put us at the center of our screens. The world is now organized around our navigation. Finally, digital technology accelerates the temporalities of experience to the point of exhaustion. Nothing lasts and endures. Nothing happens anymore because the field of events is saturated with news, notifications and information. Combined with management, digitality becomes a background so intense that it overwhelms the usual connectivity of the experience. It then gives full visibility to the world which has become its own.

*This phenomenon of depth, its progressive disappearance with the joint development of management and digitality after the industrial mobilization of World War II, is my main thread.* For the sake of my own narrative, I have to give back to the encounter of management and digitality the depth that

they themselves have contributed to erasing. Archives, articles, books and testimonies smooth out and linearize the narrative. They do not give value to all the past invisibilities. The silences, the evasions, the events set aside, the fragilities, the differences in rhythms between events, the sometimes-questioned alternatives, the reconfigurations, everything that enabled it to happen, lost in a big void. The chaos of events often gives way to the neatness of archives. The warmth of history is replaced by the grayness of past photographs.

With this book, I want to restore events in their full becoming and complexity. In my writing, I want to show the inevitable intertwining between the present of the past and our present; the permanent reopening and reconfiguration of the present by the flow of events and the thread of actuality; the continuous realignment of new pasts and new futures as history unfolds. The challenge is then to give back its thickness to present and past experience. More precisely, it is a matter of making a new narrative phenomenon visible, the major effect of which is precisely to make our experience depthless. In other words, a managerial apocalypse.

### **The *Thousand and One Nights* of Our Managerial Apocalypses**

Management,<sup>8</sup> be it as an actor, an ideology, a discourse, a set of practices or technical objects, never ceases to produce new shapes of “apocalypses”. The modes of collective activity and the infrastructure in which they are embedded contribute to the continuities and, above all, discontinuities necessary for the visibility and durability of today’s management. The managerial phenomenon is thus mainly composed of “changes”, “modernization”, “performances”, “novelties”, “innovations”, “disruptions” and “fashions”. It is necessary to show that today’s products and practices are already “unsuitable”, “out of date” and “out of fashion”.

This requires the production of great narratives. The manager is a narrator expressing their story as materially as possible. Interfaces, visuals, prototypes, physical or digital products, the slogans, the influx of renewed offers, the platform algorithms make up the framework of an endless story, waves of managerial events continuously “uncompleting” and imperfecting the world.

Like Scheherazade in the *Thousand and One Nights*,<sup>9</sup> management actors and techniques propose a narrative and visual process, the temporary interruption which feeds its own dynamics. Each incompleteness leads to the next. The story becomes a perpetual restart after each “cliffhanger”, revealing what happens now or what comes next before interrupting itself again<sup>10</sup> (see Figure 0.1). Digitality epitomizes the kind of “machine” Deleuze and Guattari<sup>11</sup> were interested in. They defined it as “a system of interruptions or breaks. Every machine, in the first place, is related to a continual material flow (hylē) that it cuts into”.<sup>12</sup>

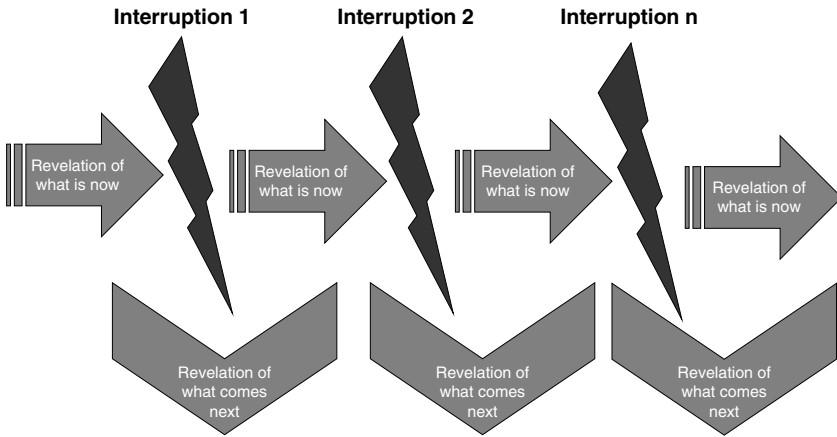


Figure 0.1 The apocalyptic process of value creation with managerial capitalism.

Indeed, each moment of interruption settles voids and emptiness that cultivate a growing impatience within customers, managers and citizens. The acceleration of the process before their occurrence keeps increasing the difficulty of its suspensions after their happening. But in contrast to the genuine Scheherazade who learned her listeners with care and patience, who encouraged multiple subjectivations in conversation with the world, digital management keeps framing interruptions as boredom and “wastes of time”. Nothing is sensed from within its voids, hollows and emptiness. Worse yet, the events of voids are just opportunities for commodification, either as a promise that payments will help avoid them, or that their presence produces value (you will pay in order to avoid fat, gluten, milk, meat, noise, bad encounters, etc.). This positive or negative game with nothingness becomes central in strategic value creation for companies.

And more than ever since World War II, the very materiality of the digital narrative (the products) has become perishable, inscribed in a larger narrative, condemning it to be overtaken by the moment that comes next. In the background, the whole planet is an infinite “resource” exploited by a narrative that is infinite itself. The inexhaustible spatiality of the former is the condition for the latter.

It is within this renewed becoming that the managerial apocalypses must be contextualized.

Etymologically, the word “apocalypse” comes from the Greek ἀποκάλυψις (apokálupsis), meaning “unveiling” or, in a religious sense, “revelation”. As a text or discourse, the apocalypse unveils a new

world to come.<sup>13</sup> It is not necessarily a prediction, but rather a challenge toward something inevitable, the imminence of a new world.

Managerial narratives, today, are the great apocalypses of our futures. Products and their stories are a revelation of a transformation to come. Buy this new version of the Omega pack! It is undoubtedly more complete and more accomplished than the last. It will bring about powerful changes at your work. But already, the next version is showing its nose from all the incompleteness highlighted by the great apocalypse. If management is a “visible hand”,<sup>14</sup> shaping the market and a few organizational islands on its surface, it is also above all the hand holding the pen of the great narrative.

Management elaborates its own visual narratives and weaves them together. Since World War II, digitality has been the page, the pen and the object of the narrative. *Grounded in representationalist philosophy*,<sup>15</sup> *it has been there to help us represent the world, unveiling and revealing what it truly is or will be, e.g., the market needs a stake in it, and most of all the problems and solutions awaiting their disclosure within digitality.*

However, managerial apocalypses are a real paradox. They are both managerial and digital phenomena. Their writing is imprinted in us as much as we print them out on digital surfaces. This narrative both temporalizes and materializes a world filled with management in one fell swoop.

The thesis of a convergence between management and digitality, particularly in its cybernetic aspect, is nothing new. Many researchers have already noted the extent to which cybernetics, as a set of techniques or as an ideology, have inspired management and organization. This has sometimes been accompanied by an unfortunate movement: an excessive interest in technology on the part of researchers in humanities and social sciences, and a lack of interest in knowledge and epistemology. Others have suggested that management techniques are derived more directly from cybernetic techniques. Others yet have proposed to make cybernetics a space for reinventing managerial thinking or, conversely, a horizon to overcome.<sup>16</sup>

I do not claim to have anything new to say on the starting point of my thinking. Rather to hammer the point home, the idea of a broad intersection between management and digital is now widely accepted. It came up in many of the discussions I have participated in over the last few years with consultants, managers, politicians and activists.

Here, however, I would like to explore the real, historical processes underlying this great encounter in depth. Each character and the space and time of my story correspond to central elements of the great cybernetic-administrative paradigm and its future. Today, digital technology is both a technical object and a new relationship to meaning. As Michel Serres rightly says,<sup>17</sup> we now outsource our modes of cognition to it. In this spatial and temporal movement, management has a central place. We no longer memorize knowledge but rather shortcuts, the Google search to find the

most relevant site, video or article. We no longer try to guess our location, to understand where our steps are really taking us. We simply follow the directions on Google Maps. We command technical objects that have more and more authority over our lives. We engage in futures made of lines of code, programs, algorithms, learning processes of artificial intelligence (AI).

Management increasingly uses (on the end of supply) and produces (for demand) technical objects the assumptions of which are completely invisible to users. In the depths, the “folds”, the “hollows” of our actions, a disturbing “surveillance capitalism”<sup>18</sup> is able to flourish in peace. The space of control is fed by our strongest aspirations for independence. The more we want to work on the move, to stay at home, to pop our computer down on the bench in the square, make a phone call while walking in the woods next door, the more our desires for emancipation feed the great matrix. And the more we use digital mediations, the more we situate ourselves in a past that is already hidden in the lines of code. Yet we feel that we have never been so directly in touch with the past, we have never been in such close contact with the world. To understand this loss of depth, we need to grasp the whole reconfigurative movement in history, especially during the 1930s and 1940s.

On October 29, 1929, the Wall Street stock market experienced a historic crash, with prices plummeting by 12%.<sup>19</sup> In two days, over 30 billion dollars went up in smoke. Between the 1929 high and the 1932 low, the overall fall was 90%. A symptom or the cause of the economic crisis? From 1929 to 1931, the country’s industrial production fell by 46% and foreign trade by 76%. The US unemployment was sitting at 25% by the time Franklin Delano Roosevelt won the presidential election in 1933. It even rose to 90% in some American cities. The shock was unprecedented, brutal, apocalyptic. It was to be the furrow of all doubts. What if capitalism is experiencing its “big night”? Obviously, the market cannot regulate itself, and the organizations at the heart of capitalism (banks and large groups) are also failing. They were not as “rational” as was then thought.

The 1930s thus radically challenged the logic of laissez-faire and rationality. The economist John Maynard Keynes published his major work, the *General Theory*, in 1936.<sup>20</sup> He suggested putting consumption and its support at the heart of economic models and public policies. The “marginal propensity to consume”, “effective demand”, “actors’ expectations” and “conventions” take a central place. The past history of capitalism had already shown that when actors no longer believe in an obvious future, the house of cards collapses. Time and temporality, so far removed from previous economic consideration, are crucial to economic action. It is thus necessary to understand the subjectivity of actors and the world they inhabit. Within the framework of these regimes of “conventions”, in their duration, the real rhythms of capitalism emerge. And beyond these conventions lies the “long term”.

Keynes' ideas were very present in the American economic landscape of the 1930s.<sup>21</sup> Numerous academics and economic advisors helped disseminate them. In a way, Keynesianism legitimized the "managerial class" later described by James Burnham. Now more than ever, the state must grow, develop expertise, techniques and bodies of actors that can intervene in the economy and manage demand.

Roosevelt thus implemented the "New Deal", the creation of economic agencies such as the Tennessee Valley Authority (TVA) and active fiscal and monetary policies. The future is no longer a given. It must be guided, codified, regulated and counter-narratives must be produced in the face of those denying the possibility of a future.<sup>22</sup> This would prove to be no easy task. In 1937, after a short upswing, the engine of the American economy stalled again. On the eve of war, growth faltered, and unemployment hovered at 12 million.

At the same time, on a more "micro" scale the idea of regulatory action, of steering, was also gaining ground. It had been doing so for a long time in the United States, with the development of Taylorism. Production must be planned, controlled and rationalized. Every action must be optimized. If everything is done rationally, if the mechanism is well oiled, our future is assured. It is no more than the simple extrapolation of an orderly past. This rationalization did not prevent forms of innovation, often guided by economic logic. Thus, it is not a political question that motivated Alfred P. Sloan in transforming General Motors into a divisional structure to confront its competitor Ford. It was the search for ever higher profitability. Outside the firm, the market, the great space in-between supply and demand, was supposed to be self-regulating.

The crisis had serious repercussions on this great division between the "inside" and the "outside". From the early 1930s, it became obvious that the markets also had to be regulated. And the optimization of firms' activities did not necessarily lead to anything optimal for the economy. It too had to be regulated by means of collaboration between economic actors.

Based on increasingly evolutionary, organic and cybernetic visions, academics, consultants and managers of the 1930s developed metaphors, practices, models and techniques that gave life and temporality room to exist. In his book *The Functions of the Executives*,<sup>23</sup> Chester Barnard develops an original vision of organizations as "collaborative systems". He insists on the short lifespan of organizations and suggests the conditions for equilibrium of managerial systems. Barnard also values the responsibility of managers,<sup>24</sup> a rarity in the thinking of the preceding decade. The idea of management with increasingly political consequences was gaining ground in the United States. A trace of this inclination can also be found in Mary Parker Follett's earlier writings.<sup>25</sup> For some management theorists of the 1930s and 1940s, adapting to the environment was necessary to cope with

its discontinuities and uncertainties. Another key insight was to be aware that organizations are increasingly contributing to producing the environment. They are therefore responsible for its evolution, both positive and negative. But the dominant thinking of that time continued to see the organization as a kind of black box connecting inputs to outputs.

Is it any different for practitioners and the way they approach their own management? In New York, a real estate agent by the name of Bernard London is proposing to develop practices of “programmed obsolescence”.<sup>26</sup> His idea is simple: to give to objects, buildings and instruments a predetermined lifespan. It is a question of integrating the ephemeral and the temporary into the very practice of management. Depending on economic cycles, London suggests adapting the durability of goods: low in times of crisis, high in periods of growth. The managers’ responsibility would be to anticipate the macroeconomic effects of their decisions. London’s writings are largely imbued with the ideas that were in vogue at the time. He states:

The job of modern management is to balance production and consumption [...]. The prevailing defeatist assumption that depression and unemployment must continue because we have too much of everything is the counsel of despair. In the future, we must not only plan what we are going to do, but we also need to apply management and planning to eliminate the obsolete jobs of the past.<sup>27</sup>

London, Follett and Barnard positioned management as a player in our economies. The future now depends on the relevance of managerial decisions. The markets and the pursuit of profits do not guarantee economic balance and the absence of crises.

We could sum up the American context of the early 1940s as a big question mark. The economic situation seemed inextricable (unemployment rose again in 1937). The country was inward-looking. The specter of war gradually resurfaced. While armed conflict sometimes represents economic “hope”, the lessons of World War I did not lead American industrialists to this optimism. The managerial models were running out of breath. A quest for new management methods began, for both public and private action.

Let us not forget that we are all victims of one major bias: we already know the end of the story. We know, with relief, that the Axis forces were defeated. But for the actors of the time, the uncertainties and fragilities were manifold. What was to happen? Was Germany going to establish its new “living space” long-term? Would the economic crisis be resolved? Would the institutional, political and economic storm in the United States come to a successful conclusion? Was the big night imminent? Nothing was certain.



## 12 *Introduction*

By the 1930s, the relationship to the future was becoming desperate and the link with the past was running dangerously thin. In the following decade, the conditions for a new temporal and narrative engineering were gathered. Following the attack on Pearl Harbor on December 7, 1941, war was declared on Japan, then on Germany and Italy. The United States became an essential ally of Great Britain, the USSR and all countries opposed to the Axis forces. From 1941 to 1946, this planetary conflict revives the American economic machine. The war effort is absolutely colossal. Military expenditure grew from 2 billion dollars in 1940 to 80 billion dollars in 1945, i.e., 44% of the US GDP.

Whether in terms of foreign trade, unemployment or investment, the general economic trend became positive again during the years of conflict. Within three years, the 12 million unemployed were absorbed by the army (the unemployment rate fell from 15% in 1940 to 1% in 1944).<sup>28</sup> Savings rose sharply. Consumer goods were no longer available, as most of the supply was redirected to the production of heavy military goods. On top of that, in deeply troubled times, everyone was stashing away some cash, just in case. Savings were massively and patriotically invested in war bonds, money that was only waiting for the end of hostilities to become investments. The development of calculation and simulation techniques was massively supported by the investment and expenditure of the military-industrial complex. Everything was there, ready to be transposed into the world of banking and business.

American society was on the move, or seemed to be. Women's employment was gaining ground (with a 20% increase from 1930 to 1940). Women were also gaining emancipation, though they were still discriminated against in many ways compared to men. Minorities were also called upon to contribute to the war effort. For many African Americans, Roosevelt embodied real hope. Alongside him, Eleanor Roosevelt multiplied initiatives to transform political practices and move toward more diversity. But injustices and segregation did not magically end. Fifty percent of African Americans were still unemployed at the peak of the Great Depression and violence against them kept increasing during the 1930s.<sup>29</sup>

### **In the Footsteps of Burnham, Saint-Exupéry and Wiener: From the Small Story to the Big American Break**

A single place and time, more than any other, embodies this upturn and the warlike movement toward digitality, its dimensions and its stakes: the New York of the 1940s. The actors, techniques, discourses, metaphors, intrigues and institutions at the heart of the emergent cybernetic-administrative world all seem to have met on the island of Manhattan.

To shed light on some of the depths this digital world holds, perhaps it is necessary to better understand the genesis of its encounter with management. Perhaps we need to better understand what it was and how it is still active in our present. To do this, I propose a stroll across three places and three moments in New York. These three time-places deeply embody the making of our managerial apocalypses: Washington Square, Beekman Place and the Beekman Hotel (see Table 0.1).

The Washington Square campus where philosopher James Burnham worked (from 1940 to 1953) epitomizes the logic of the institutionalization of management at work in the 1930s and 1940s, especially. The New York University professor developed a genuine political philosophy of management. Along the way, he also addresses the question of democracy in the context of his time.

Antoine de Saint-Exupéry's apartment allows me to develop a sensitive and critical analysis of the times and its ongoing transformations. Saint-Exupéry was both the actor and great witness of his time. He knew full well the increasingly central role of management in the years following the Great Depression and the war. He perfectly understood the consequences of this obsessive concern to better calculate, plan and organize our lives. The poet also understood with great finesse the world of techniques that amazed the aviator in him. Saint-Exupéry was not only there at the right time and place for my story. He is above all the perfect point of exploration for this past, worried about the future at a time when the best and worst outcomes were still possible.

The Beekman Hotel, at the heart of the cybernetic moment, is a third time-place associated with Norbert Wiener. This is one of the great figures of science and technology of his time. Through his commitments during the war, followed by his increasingly critical stance on the role of scientific knowledge in armed conflicts and geopolitical balance, he also allows me to capture the strategic and ethical dimensions at stake within the cybernetic-administrative paradigm.

At first glance, everything seems to oppose my three characters, whose personalities, desires and, above all, relationships to the Big Apple are very different. The very calm Burnham has little to do with the great dreamer Saint-Exupéry or the ebullient Wiener. Everything also sets them apart in terms of their ambitions. Burnham very quickly elaborated a political project. Saint-Exupéry dreamed of horizons and combat. Wiener remained a scientist, admittedly eccentric in many ways, but always connected to his community and its debates.

Their high points within New York City are relatively distinct. The publication of Burnham's book and its reception, the writing of *The Little Prince*, the preparatory meeting of Macy's lectures follow one another but do not overlap. Each of them is in his own world. Burnham's academic and