

# Public accounting system in France : the case of the Great Exhibitions held in Paris during the second half of the 19<sup>th</sup> century.

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## *Abstract :*

*Following the success of London Great Exhibition of 1851, the French government decided to launch similar exhibitions in Paris. Thus a series of five Great Exhibitions have been held in Paris between 1855 and 1900. Unlike in the British case, it was more difficult to gather financial contributions from private partners in France, so financial resources allocated for French exhibitions came almost exclusively from the French government and the City of Paris. In such a situation the use made of public funds had to be overlooked by codified rules and principles. French Great Exhibitions are thus a very good opportunity to study the implementation of public finance principles (budgetary order and public sector accounting).*

*The objective of this paper is to improve our understanding of a public sector accounting system in the administration of these Great Exhibitions. This will be achieved by focusing firstly on the administrative setting : the budgetary procedure and the public accounting rules ; this financial setting being administered by commissions and staff appointed by the State. Then, we will focus on the accounting model and on financial statements. Our research is based on the documents of the National Archives of France in Paris and on official reports written at the end of each Great Exhibition (recording main aims, stages in the organisation, achievements, figures and financial results). These reports are available at the Bibliothèque des Arts Décoratifs in Paris.*

**Keyword : Public finance, Public accounting, Accounting practice, Great Exhibition, Control.**

## *Résumé :*

*Suivant l'exemple de l'Exposition Universelle londonienne de 1851, l'Etat français organise à Paris cinq Expositions universelles entre 1855 et 1900. Ces Expositions se déroulent sur une période de temps où viennent d'être définis les principes des finances publiques : les ordonnances sur l'ordre budgétaire et la comptabilité publique datent des années 1830. Ces principes sont appliqués dans l'organisation des Expositions universelles puisque les financements de ces manifestations sont en France presque exclusivement publics. Ces Expositions parisiennes constituent donc un exemple concret et original pour étudier la mise en œuvre des principes de l'ordre budgétaire et de la comptabilité publique.*

*Cette mise en œuvre est appréhendée selon deux axes. Le premier axe se focalise sur le cadre budgétaire et sur le cadre comptable ; ces cadres s'appuyant sur une organisation administrative très spécifique. Le second axe d'étude de ces Expositions se focalise sur l'organisation et la pratique comptables ainsi que les documents produits afin d'en étudier les caractéristiques. Cette étude se base sur deux sources : les documents d'archives disponibles aux Archives nationales françaises à Paris et sur les rapports rédigés à la fin de chaque Expositions afin de rendre compte de tous ses aspects (y compris comptables et financiers) et disponibles à la Bibliothèque des Arts Décoratifs à Paris.*

*Mots clefs : Finances publiques, Comptabilité publique, Procédure budgétaire, Expositions universelles.*

## 1. Introduction.

The French Restoration<sup>1</sup> is a period of fixation and assertion of budgetary principles. According to the British example, the establishment of a public finance framework took place in a context of a parliamentary control. This control strengthened throughout the 19<sup>th</sup> century and reached its highlight under the 3<sup>rd</sup> Republic<sup>2</sup> (Philip, 1995; Paysant, 1999). The enactment of September 1822, prompted by the Marquis de Villèle, puts the principles of the budgetary order which allows parliamentary debate and control of expenditures (Bottin, 1995). Ensued from it a reform of public accounts, based on the work of a committee led by the Marquis of Audiffret, which ended with the enactment of May 1838 (afterward revised by the decree of May 1862) (Magnet, 1995).

It is in this historic context that are organized in France and under the supervision of the State, a series five Great Exhibitions between 1850 and 1900 (the Exhibitions of 1855, 1867, 1878, 1889 and 1900). These events provide a very good opportunity to study the French public accounting system as public finance principles are applied in their management. These Exhibitions deserve particular attention for several reasons:

- Few articles have investigated French public accounting model during the 19<sup>th</sup> century when public finance principles have just been introduced (Lacombe-Saboly, 1997; Nikitin, 2001);
- Over a period which covers two different political systems (the Second Empire<sup>3</sup> and the Third Republic), Great Exhibitions offer the opportunity to study the implement of the budgetary order principles and of the public sector accounting principles;
- From an accounting practice point of view, Great Exhibitions give an exemple of public sector accounting practice in French public administration during the second half of the 19<sup>th</sup> century.

The first Great Exhibition was conceived by Prince Albert and held in London in 1851. Following the success of this Great Exhibition, the French government decided to launch a similar exhibition in Paris<sup>4</sup>. Thus a series of five Great Exhibitions have been held in Paris between 1855 and 1900 through two distinct governments : the Second Empire (Great Exhibitions of 1855 and 1867) and the 3<sup>rd</sup> Republic (Great Exhibitions of 1878, 1889 and 1900). Those five French Great Exhibitions of the second half of the 19<sup>th</sup> century (and in fact all the Great Exhibitions of this period of time) can be considered as a whole for two main reasons (Aimone et Olmo, 1993): they are homogeneous both in their content and in their period of time (1900 Great Exhibitions has been organised between 1895 and 1900 and its aim is to report on the 19<sup>th</sup> century achievements). Furthermore, no specified rules have been defined on a world level before the 20<sup>th</sup> century (Pinot de Villechenon, 1992).

Throughout this second half of the 19<sup>th</sup> century, the financing of these exhibitions caused controversy in France between those in favour of a self-financing exhibition (according to the British example) and those

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<sup>1</sup> The French Restoration is a period of time that span from the fall of Napoléon to 1848.

<sup>2</sup> The 3<sup>rd</sup> Republic begins with the revolutionary period ('La Commune') which follows the defeat against Prussia in 1870.

<sup>3</sup> The 2<sup>nd</sup> Empire starts with the puch of Louis-Napoléon (Napoléon III) in 1852 and stops with the 1870 war defeat.

<sup>4</sup> France willingly followed this example having already a tradition of exhibitions since the very end of the 18<sup>th</sup> century (Rebérioux, 1983).

who wish a state intervention<sup>5</sup>. Indeed, the organization of an Exhibition is a large-scale project mobilizing considerable technical, human and financial means. From a financial point of view only, financial resources absorbed for the organization of the Great Exhibitions amounted to 11 million francs in 1855 up to 120 million francs in 1900. But unlike the British example, it was more difficult to gather financial contributions from private partners in France, so financial resources allocated for French exhibitions came almost exclusively from the French Government; however, for the Exhibitions of 1867, 1889 and 1900, an association of guarantee was created to cover possible lack of financial resources and to limit the commitment of the State. Two main ideas can also enlighten this implication of the State in the management of these Great Exhibitions. First of all, through the 19<sup>th</sup> century, we witness an assertion of the action of the French Administration on the economical and social level (Sautel and Harouel, 1997). As Great Exhibitions presented every new aspects of life on an economical and social level, by financing those events, the governments was able to reinforce its message of implication in the daily life of people and thus offered a 'humanist vision' of its action (Sautel and Harouel, 1997). The State also brought honesty in the management of these Exhibitions, which mattered because of financial resources allocated. Finally, it is a positivist point of view should also be referred to: by imposing procedures, principles and techniques (public finance principles and a public accounting model), the State provided a framework for efficiency.

Our aim in this paper is mainly to look at the implementation of accounting and budgetary principles from an accounting point of view. The objective of this paper is to improve our understanding of public accounting system and practice through the management of these Great Exhibitions. This will be achieved by focusing firstly on the administrative setting: the various stages of the budgetary procedure (the demand and getting of financial resources) and the public accounting rules (an accounting code is established for each Exhibition) and how this financial setting greatly influence the management model of these exhibitions. Then, in a second part, we will focus on the accounting model (accounting organisation and practice through books of accounts, accounts used which features can be enlighten on the basis of 19<sup>th</sup> century accounting writings) and on financial statements (budgets, annual accounts, reporting documents,...) in order to characterize public accounting practice and 'public financial reporting' in French public administration during the second half of the 19<sup>th</sup> century.

In the first section of this paper, we examine the accounting system (budgetary procedure and public accounting rules) and the management structure set up in order to match the rational of public finance principles, this being followed in the second section by an analysis of the accounting organisation and documents through these five Great Exhibitions. Our research is based on the documents of the National Archives of France in Paris and on official reports written at the end of each Great Exhibition (recording main aims, stages in the organisation, achievements, figures and financial results). These reports are available at the Bibliothèque des Arts Décoratifs in Paris.

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<sup>5</sup> For exemple Georges Berger, in a draft about the organization of the 1889 Great Exhibition think that financial resources should be raised among the French population while the financial management of the exhibition should be placed under the supervision of the Board of Trade (Berger, 1885b, p. 4). Tenants of such a financing were many after the 1878 Great Exhibition which had been a huge financial failure.

## **2. The implement of Public finance principles in the management of a Great Exhibition.**

The decision to organize an Exhibition in France is a public decision announced by a decree. It is also through a decree that are appointed people in charge with the management of the exhibition. Therefore they become clerks of the State and have to execute the decree (Sautel and Harouel, 1997). Financial resources needed being also allocated through a decree, public finance principles have to be adopted in the management of Great Exhibitions. The accounting model used is formatted according to public accounting rules and principles of the budgetary order. But besides the application of these principles (which are the object of a constant reflection during the 19<sup>th</sup> century), the management of Great Exhibitions also involves the choice of a structure which can enable the coordination of actions and match the rational of public finance principles. Our first aim in this section will be to underline how public finance principles are applied in the financial management of these great exhibitions and then we will be to put forward the characteristics of the organizational structure and management set up for the French great exhibitions which constitute a bureaucratic model of management.

### **2.1. Principles of the budgetary order and of public accounting in the management of French Great Exhibitions.**

Public financing of Great Exhibitions creates an agency relation between the French State, as provider of financial resources, and the Commission which uses these resources in order to hold an Exhibition. This agency relation implies the setting of rules which help controlling the use made of these financial resources (as it is public money). The Government, through the Commission in charge of the management of the Exhibition, become accountable for the use of these resources.

The interesting point in the case of these exhibitions is that it provides an example of the implement of public finance principles: the budgetary procedure from the preparation of budgets to their vote and public sector accounting principles. Furthermore, these exhibitions provide the opportunity to outline the change in political background. With the 3<sup>rd</sup> Republic, budgets undergo debate at the Chamber of representatives and the Senate which was not the case before while accounting code stress the increased bureaucratic tendency of financial management. As a matter of facts the come back of a republican government helped get back to a stricter bugetary procedure (Magnet, 1995) which implies a less independent Commission and a centralization of the exhibitions' monitoring at the Minister level.

#### **2.1.1 The public budgeting procedure.**

Budgetary principles are applied to Exhibitions, because the financial resources are provided by decree or law. Financial ressources needed have to be justified and defended in front of the Imperial Commission or the Chamber of representatives. Thus, the elaboration of the global budget of an Exhibition is the first important stage of its preparation. It intervenes as soon as the decree which announces the holding of an Exhibition is voted. Elaboration of budgets is strongly controlled and discussed. This task is steered by the Commission in charge with the organization of the Exhibition. The General Commissionner, until 1878 Great Exhibition, makes a proposition of budget (evaluation of expenditures and potentiel revenues) - under the control of the finance committee in 1867 exhibition. It is discussed by the Commission until the final

approval. The established budget is then confirmed by a decree at the level of the State. With the 1878 Great Exhibition, the budget, at first approved by the Minister of Trade and of Agriculture, is then approved by vote by the Chamber of representatives and the Senate.

During the following Exhibitions, the budget is elaborated by the Commission and then submitted to the Chamber of representatives and the Senate. It is elaborated in two stages: a first version gives a detail and a justified evaluation of the main items of expenditures as well as revenue. The gap between total amounts of spending and revenue represents the amount of necessary public subsidies to balance the budget. This project is, then, submitted to the Chamber which examines it and can ask to go through it once more.

From the 3<sup>rd</sup> Republic, this vote of budgets by the Chamber of representatives and the Senate is widely developed in reports (while it is not the case in previous reports)<sup>6</sup>. The City of Paris being involved in the financing of Exhibitions, debate and vote also happen at the level of the City Council and are reported in administrative reports about the management of the Exhibition<sup>7</sup>. Thus main supports for and against the holding of an Exhibition are related: they are mostly economical (increase of railway or economical activity) and financial supports (increase of taxes): financial resources needed in order to hold an Exhibition are presented as a mere advance which will be made up by increased taxes to come<sup>8</sup>. These arguments raise the problem of the real impact of an Exhibition. Now, statistics usually tend to show a very low impact of great exhibitions upon domestic or foreign trade as well as on taxes revenues. Nevertheless, the Chamber and the Senate usually approved budgets presented because an exhibition is also (or we should say rather) held in order to celebrate the strength of a Nation.

The elaboration of a budget reviews all activities needed for the holding of an Exhibition: operational activities (construction of buildings, rewards, entertainments, conferences, commissions and staff, etc.) and support activities (accounting department, police contingent, cleaning, etc.). Expenditures and revenue are then presented by nature in budgetary documents. Forecasts focus first of all on expenditures. Forecast of building expenses is extremely detailed and based both on previous realizations (French great exhibitions or foreign Exhibitions: when preparing the 1855 great Exhibition, only figures available are those of the London 1851 great Exhibition<sup>9</sup>) and on architects' estimates approved by directors of Works. This is a difficult part of the forecast because it depends on an appraisal of the participation of the various countries and thus on an appraisal of surface of presentation needed. Buildings and areas covered are getting bigger with each great exhibition because of countries participation and this explains for example the financial failure of the 1878 great exhibition: extra financial resources have been needed in order to lay grounds on services<sup>10</sup>.

Receipts are of three different kinds: entrance tickets receipts, concessions receipts and palaces materials resale returns (because buildings should normally be destroyed which won't be the case from 1889 Great Exhibition on). When Paris decides to hold the second Great Exhibition (in fact the first in France), the

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<sup>6</sup> *Rapport administratif sur l'Exposition Universelle de 1878 à Paris, Exposition universelle internationale de 1889 à Paris – Rapport général*

<sup>7</sup> *Exposition universelle internationale de 1889 à Paris – Rapport général*, vol. 1, p. 316-318.

<sup>8</sup> See for example: *Rapport administratif sur l'Exposition universelle de 1878*, p. 21

<sup>9</sup> Archives Nationales F<sup>12</sup> 2904.

<sup>10</sup> *Rapport administratif sur l'Exposition universelle de 1878*.

Imperial Commission lacked of experience. It is only with accumulated statistics that forecasts become more elaborated. From the preparation of the 1867 Great Exhibition on, there is a real discussion which is not only a renewal, without further exam, of former statistics (previous entrance patterns) and results. Thus the kind and depth of various commissions' discussions in order to justify entrance receipts are very interesting. These discussions include general goals such as display or democratization or diffusion goals (Amans, 2002) (surfaces of display, kinds of visitors, etc.) and choices (entrance tickets prices policies haave an impact on type of population which visit Exhibition)<sup>11</sup>; and those goals and choices will turn to have an impact on financial resources needed. For exemple, during the first great Exhibitions, a new behavior had to be created (and not merely to be evaluated), because Parisians or French people have not been accostumed to buy entrance tickets to visit an exhibition unlike British people. Anyway, entrance receipts are always lowered while expenditures are easily increased in final drafts of budgets.

### 2.1.2 The public accounting frame.

Great Exhibitions studied here took place over a period of time during which a framework for public accounting was being established: a set of rules for public accounting called 'Règlement de la comptabilité' – Accounting Code (by-laws) – which presents principles and rules for public accounts. This accounting code, according to the decree of 1838, has four parts dealing with (Magnet, 1995):

- the preparation and vote of budgets, the process of carrying out expenditures and their payment, the establishment of general accounts;
- books entries as well as bookkeepers' responsibility;
- the organization and duties of the 'Cour des Comptes';
- Special accountings (local collectivities, public establishments).

The 1838 accounting code was mostly based on the legislation and regulations in force (Magnet, 1995). This accounting regulation was afterward revised in 1862 with the aim of improving it and including modifications inferred by change in institutions. The 1862 decree proposes more precise definitions for the notion of budget, of public funds for example. It also reaffirms the principle of separation between administrators and bookkeepers, budgetary yearly recurrence, speciality of credits. But despite this revision, the accounting code was revised again during the 3<sup>rd</sup> Republic (Magnet, 1995; Burckel and de Crémiers, 1997).

As soon as the decision of holding an Exhibition is made, an accounting code is drawn up, clarifying procedures and rules to adopt: the budgeting process, the organization of the accounting books, books entries, books vouchers and financial accounts. If we focus on the cases of the 1867 Exhibitions and the 1889 Exhibitions, a comparison of two documents underlines an increase in the detail of process and administrative rules. Both focus on budgeting process, the organization of the accounting books, books entries, books vouchers and financial statements. However, 1889 accounting code increases control requirements, that stresses the bureaucratic dimension of the management. These documents show very

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<sup>11</sup> Those goals can be identified through statistics presented in the reports about each exhibition. Those goals also include an economical level as many statistics are provided about the impact on domestic railway activities for example.

hierarchical and centralized accounting procedures where any decisions and book entries are controlled and authorized:

- Within this agency relation which binds French State and the Commission, the general commissioner or the financial director (from the Exhibition of 1889) hold a central position and on them rest specific obligations. Indeed, they are responsible for the elaboration of the global budget and the accounting of various departments. They are responsible for all payments orders within the bounds of opened credits.
- A budgeting process for the allocation of financial resources help control expenditures needs. The parliamentary debate before voting of a budget is a mean to assess the usefulness of expenditure items included in budgets.
- A checking of the correspondence between expenditures made and their defined object is also systematic. This procedure is a mean to control that services (works, ...) were realized.

Controls a posteriori are also realized. Their aim is to check on the one hand the use made of financial resources and accounting regularity and, on the other hand, to draw up a state of expenditures and revenue with regard to the initial budget (this state is presented in the financial report enclosed in reports on Exhibitions). So, accounting regulations of great Exhibitions held under the 2<sup>nd</sup> Empire ask for a monthly trial balance to be submitted to the Commission president and a general account of receipts and expenditures of the Exhibition submitted to the approval of the imperial Commission. Finally, accounting documents of the imperial Commission is, in March 1868, submitted to a specific committee. During the following Exhibitions, similar demands of accounting control can be found : control by a committee as well as a statement of receipts and expenditures of the Exhibition to be submitted to the president of the Republic, the Senate and the Chamber. Finally, a control by the 'Cour des Comptes' is also specified in the statutes of the association of guarantee established for the 1889 Exhibition.

## **2.2. The administration of a great Exhibition: structure, procedures and control.**

The launch of an Exhibition is a large-scale project mobilizing huge financial, technical and human means and it is possible to mark out four stages: preparation, realization, exploitation and liquidation. The scale and peculiar difficulties of each stage involve setting up a board of administrators (a Commission) in order to get an optimal coordination. Administrators, procedures and organizational structure in the administration of the great exhibitions spring mainly from the French Administration and are set up specific modalities of control. Therefore from the point of view of the management structure, the French exhibitions provide a thinking about an efficient model of management which leads to a hierarchical administration, bureaucratic values and three main modalities of control (financial, reputational and professional control). These three main characteristics of the management of French great exhibitions mirror the rationale of public finance principles. The interesting point in these exhibitions is that the bureaucratic model of management shaped is in line with the management rational of the time as this model is usually compared with the one of French Railway Companies.

### **2.2.1 The administrative structure of Great Exhibitions**

The administrative structure of the five French Great Exhibitions is either characterized by a Commission in charge of the whole management (the first three Great Exhibitions) or a three head Directorship (the last two ones). But if the administrative structure remains the same in essential, for every new Exhibition, this one is still revised and modified.

A common characteristic to these Exhibitions is the setting up of a Commission which makes decision or at least makes proposals about choice of places and architectural projects, selection of products and import duties, educational themes and entertainments, medals and rewards, etc. and also estimates financial resources needed. The imperial Commission, under the 2<sup>nd</sup> Empire, is established by decree and can make necessary decisions, decisions which are confirmed by decrees. The president of the Imperial Commission and his vice-presidents hold executive powers while the Commission members (as many as sixty for the 1867 Great Exhibition) ensure deliberative functions. With the advent of the 3<sup>rd</sup> Republic is established a Commission for International Exhibitions in December 1871 (which becomes a Study Committee afterward), which is headed by the Minister of the Agriculture and Education. This Commission only possesses a consultative function in the management of the Exhibition. Its proposals are bills which are submitted to the government then to Chambers in order to obtain Parliament approval through decrees and laws. There is an intensification of parliamentary control over the organization of Exhibitions with the advent of the 3<sup>rd</sup> Republic.

Next to the Commission which meets about the management of the Exhibition or the decisions to make in order to launch the Exhibition, two other points of investigation can be outlined : one is about the duty of the General Commissioner (at the head of the administrative structure) and the importance of the financial function. With the 1855 Exhibition, the Imperial Commission supervised a General Secretary which has under its custody the accounting function and General Commissionership which assumes operational aspects. The General Commissioner is in fact the leading character in every stage of the setting of an exhibition. He is responsible for the whole management and need to have various abilities in order to cope with every aspects of an exhibition.

During the 1867 Exhibition, specialized committees are added, as a finance committee, which oversee financial or operational aspects. The finance committee (where belong for example the minister of finances), is needed for transparency purposes because of the creation of an association of guarantee : it is in charge of controlling accounting operations and cash-flows. On the contrary, during the 1878 Exhibition, the management is focused essentially on operational aspects and no finances committee is established. As, this exhibition ends in a bitter financial failure that doubtless explains a radical change of structure during the following two exhibitions. For the 1889 Exhibition, a three head directorship is established under the supervision of the Minister of Trade as General Commissioner while, until now, this duty was assumed by a personality appointed by the government. The objective of this appointment is to make the General Commissioner responsible in front of the Parliament. The three head offices constituted are: a Works head office, an Exploitation head office and a Finance head office. This finance head office is, once more, justified by the constitution of an association of guarantee. But a board, responsible for the management of the association, is also added to this administrative structure in order to oversee architectural designs and

buildings, markets procedures, the general conditions of exploitation and the financial management of the Exhibition.

The administrative structure is very hierarchical: services are steered by a limited number of upper employees, according to an authoritative model of functioning. In a more general way, by applying the principles of the budgetary order and those of public accounts, is set up a control based on strict financial reporting which enables to reduce risks of potential drift in depenses (Bottin, 1995; Lemarchand, 1999). Such control by figures contributes also to establish a bureaucratic model of management (Clegg and Courpasson, on 2004) as in the case of Great Exhibitions.

One can find an example of a similar administrative structure in the railway companies of the 19<sup>th</sup> century. For example within the North Railway Company, next to a Board (organ ruling on important questions which is the case with the Commission and the board of the association of guarantee) is a committee towards whom everything goes back and that coordinates (this administrative committee, in the case of Exhibitions, gathers the three directors, works, exploitation, finances, around the General Commissioner). These two organs are supported by an accounting department which defines financial policy and the accounting rules which reinforce connections between the committee and operational (Caron, 1973). The accounting function, in the case of the Great Exhibitions, can really be considered as bringing up coordination (rules help to cope with external difficulties when urgency is requested) and assessing efficiency (optimal use of capital allocated).

### 2.2.2 Bureaucratic values.

The strength of a bureaucratic model of management set up by public finance principles (budgetary procedure and public accounting rules) is reinforced by the selection of Commission and Staff members whose rationale is in line with Public Administration (Clegg and Courpasson, 2004). They are often close to or working for the French public Administration. Furthermore, main Commission and Staff members form a real network and are often implicated into the management of various Great Exhibition. Therefore, they help setting up an authoritarian model of monitoring, based on technical knowledges, strict financial rules and personal competences (Pesqueux, 2002). Various kinds of networks can be glimpsed in the case of the parisian great exhibitions. They seem important to the credibility of the Commissions and to the management of these events.

People selected as Commissions members or as staff members are often involved in the functioning of the French Administration (various ministries, army, 'Grandes Ecoles', law-court, town council) or in the administration of Banks or railway companies. They form a network due to their involvement in the French administration, the government, or by their link with the imperial family which create a first kind of ties. It is case of Frédéric Le Play, a major figure in the organization of great exhibitions during the 2<sup>nd</sup> Empire<sup>12</sup> (Savoie, 1989). This network can be pointed out in another context: most of the administrators of the Social Economy Society established by Le Play, for example, are also members of the two successive Imperial

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<sup>12</sup> Frédéric Le Play (1806-1882), engineer from the Mines, has focused his career on both metallurgic researches and sociological researches about the workers conditions of life across Europe. It is based on these sociological researches that he published in 1855 *Ouvriers Européens*, republished later under the title of *La Méthode Sociale*. His works made him a very famous author in sociology during the second half of the 19th century (Savoie, 1989).

Commissions or staff members (Savoye, 1989). Overlaps also another kind of network: that of French 'Grandes Ecoles' (high schools). The direction of major "operational" services or the charge of General Commissioner are systematically comited to engeneers from l'Ecole des Mines or l'Ecole des Ponts et Chaussées<sup>13</sup>. As underlined by Pesqueux (2002), these high schools generate a network of people formed to the model of public administration (their passage by l'Ecole Polytechnique make of them civil servants of the State) and a model of management making them able of leading a large project such as an Exhibition. This network creates professional ties as well as common values or beliefs about the involvment of the state in economic or social affairs for example (Ekelund and Hébert, 1978).

The fact that main members in charge of the management of successive Exhibitions remain through time allows on the other hand the intensification of public Administration values. It also generate very important specific knowledges for the management of these projects which require various competences. As a matter of facts, the charge of General Commissionner is mainly assumed by men trained to the management of an exhibition by being involved into various duties in successive Exhibitions. Frédéric Le Play, for example, is appointed member of the Commission of the 1855 Exhibition. His implication having been very important in the launching of the Great Exhibition, he is thus appointed General Commissionner during the opening period. He is appointed Secretary-General of the French delegation to the 1862 London Great Exhibition and, finally, he is appointed General Commissionner of the 1867 Great Exhibition. This is also the case of J. B. Krantz, General Commissionner of the 1878 Exhibition who have been previously in charge of the 1867 buildings contruction or of A. Picard, General Commissionner of the 1900 Exhibition. This can also be noticed among staff members: the accounting function is headed by the same person through both Great Exhibitions of the 2<sup>nd</sup> Empire. G. Berger who is appointed Exploitation Director during the 1889 Great Exhibition has been previously involved in various services during the 1867 and 1878 Great Exhibition in Paris.

The fact that people involved in the management of great Exhibition often remain through time help creating to other kind of control, beside the calculative control introduced by public finance principles (Clegg and Courpasson, 2004): these two kinds of control are a reputational control and a professional control. A reputational control is hierarchically and peer-based (Clegg and Courpasson, 2004): the management of Great Exhibition create permanent tests of skills and of communication abilities. General Commissionners appointed are important person of their time whose works and ideas are higly valued. Frédéric Le Play, for exemple, was appointed to the management of three great exhibitions during the 2<sup>nd</sup> Empire firstly because of his work about workers conditions of life and sociological writings but also because of its proven ability to monitor action and create collaboration<sup>14</sup>. From this point of view, the social networks discribed above provide collective identity in a group which help to get the cohesion needed to manage exhibitions (Lee, 2000). A professional control is created through experience: the management of a project such as a Great Exhibition demands specific skills and knowlegde that can only been generated by experience. These specific knowledges are highly valued for the management of an exhibition as each general commissioner

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<sup>13</sup> High School of civil engineering

<sup>14</sup> His own ideas about the shape of the 1867 Exhibition building have been very much criticized by the Baron Haussman member of the Imperial Commission and of the specific committee about constructions.

notice in the final report about an Exhibition. These knowledges help normalizing practice-based model of management and increase efficiency. J.B. Krantz states that knowledges accumulated with the management of an exhibition can be useful for every kind of large project<sup>15</sup>. Here again social network are useful as they help transfer knowledges and resources through various exhibitions (Lee, 2000).

### **3. Public sector accounting organization and practice during the 19<sup>th</sup> century through the example of French Great Exhibitions.**

As seen in the first section, public finance principles provide rules for the preparation of great exhibitions budgets and its vote, the use of financial resources allocated and its accountability through the accounting code. Thus this accounting code fix the organization of an accounting department and its general attributions which include: collection and covering of funds, bookkeeping and accounting entries, control and payment of wages and salaries, expenditures settlement. But these duties can change from an exhibition to another one: for example, during the 1889 Exhibition, accounting department is parted from liquidation department. Its duties include helping in the preparation of budgets, giving advices on expenditures orders, checking available funds and their allocation, preparing financial statements. Each main departments or operational directions have its own accounting department which is centralized at an upper level (at the general commissionership or head office of finances level) because payment orders must be checked up by the central accounting department<sup>16</sup>.

Archives documents allow studying the accounting system put in place for the administration of a great exhibition. On the one hand, it provides the opportunity to investigate a specific accounting model (public accounting specificities, public sector accounting practice). On the other hand, it is interesting to analyze this accounting model in the light of major accounting writings of 19<sup>th</sup> century. Archives documents also give numerous examples of reporting documents used to monitor expenditures and revenues which help to have a glimpse of the characteristics of a 'public financial reporting' in French administration during the 19<sup>th</sup> century.

#### **3.1. Characteristics of a public sector accounting model.**

The accounting code impose on the accounting function a set of the rules which aim is to supervise the use of funds allocated by the State or the City of Paris and possibly the association of guarantee. Great exhibition accounting is a double-entry accounting as is public accounting since the ordinance passed at the beginning of the century. This double-entry accounting is not aiming either at giving a representation of the State property or at measuring a result. Its only focus is to track cash flows arising during the various stages of the Exhibition since its preparation until its liquidation : it is the control function that is dominant in this double-entry accounting (Lemarchand, 1999).

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<sup>15</sup> *Rapport administratif sur l'Exposition Universelle de 1878 à Paris* p. 5.

<sup>16</sup> Archives Nationales F<sup>12</sup> 2993 ; Rapport sur l'exposition de 1878, p. 476 ; Rapport sur l'exposition de 1889, tome 2, p. 72.

In order to follow-up cash flows from an accounting point of view, and also to have information available to monitor these exhibitions, an accounting information system must be set up. Great Exhibitions provide an example of a public accounting model. This accounting model seen in various accounting documents of archives is the same through the five great exhibitions as ordonnances have imposed a set of rules since the beginning of the century. But variety can be noticed in each exhibition case as there is no uniformity in documents established or accounts used<sup>17</sup>. This accounting model is based on a double-entry accounting oriented towards controlling the use of funds allocated for the organisation of an Exhibition. To improve this control, the Accounting code imposes a fundamental principle of separation between the role of the person who authorizes a spending (the general commissioner or the financial director as a manager) and the accountant who carries it out<sup>18</sup>. From this point of view the manager is considered as secondary regulator : his duty is to order the settlement of a spending but not to settle this spending which can only be the part of the bookkeeper. Thus a control can be made of both the spending and the manager (De Swarte, 1885). The head of the accounting function is appointed by the minister of finances among his employees and he is responsible in front of him. Strict rules for a double-entry accounting and standardized procedures are defined by the Accounting code. For example, the Accounting Regulation for the 1878 great Exhibition goes into details regarding the accounting formulae to use in bookentries. Vouchers are compulsory and no payment can be made without a money order. This is translated, in book-entries and in accounting documents, by specific mention as the naming of engaging parties or the payment authority and money order or a receipt for receipts<sup>19</sup>. Finally, total funds allocated to the setting of an Exhibition is assessed on a few number of years according to the needs planned to organize and open an Exhibition. Each yearly allocation of funds must be spent during the year in respect with the annual character of budgets.

The accounting organization of great Exhibition is highly structured. This is necessary because of the importance of following cash flows and budgets on the one hand and on the other hand because of the need to monitor the various activities (works) implied to hold an exhibition. Centralization and hierarchical organization which characterizes the management of the exhibition meet themselves at the accounting level with a centralizing journal system.

The article 22 (title 4) of the Accounting code for 1867 Great Exhibition requires that should be kept the following accounting books: " [...] a journal, a ledger and auxiliary books. The ledger presents only general accounts and short results: details are available in auxiliary books which number and shape are determined by the nature of services<sup>20</sup>". The description of accounting books needed and their relations among them is similar to the centralist system of Desarnaud de Lésignan (Vlaeminck, 1979, pp 154-155): at the lowest level, there is a number of specialized books. Operations recorded in these auxiliary books are regrouped at an upper level in a general journal. Desarnaud suggested a number of auxiliary books as cash book,

<sup>17</sup> For example, the final report about the 1878 great Exhibition states that because of the specific nature of major operations (mainly engineering achievements), the Accounting code of the Ministry of Works publics is enforced. Rapport sur l'exposition de 1878, p. 474.

<sup>18</sup> Archives Nationales F<sup>12</sup> 2993 ; Archives Nationales F<sup>12</sup> 3816.

<sup>19</sup> Archives Nationales F<sup>12</sup> 3155 ; Archives Nationales F<sup>12</sup> 2995.

<sup>20</sup> Archives Nationales F<sup>12</sup> 2993.

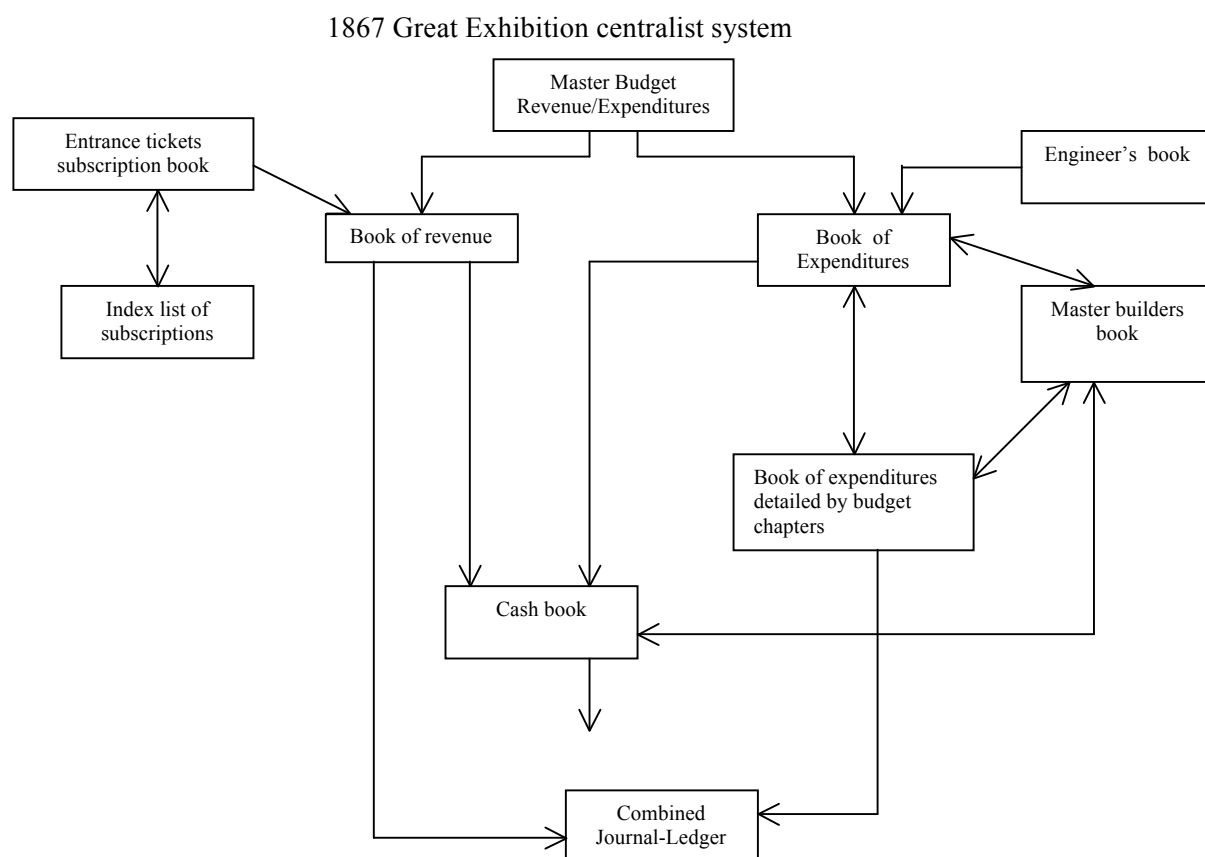
purchases book, inventories book, receipts book, notes terms book... In the case of the great Exhibitions, a common characteristic is that there are two levels of auxiliary books<sup>21</sup>:

- a first level includes cash book, expenditures book, receipts book;
- and a second level relates each of these books to auxiliary books such as an Engineer's book or a Master builders book for the expenditures book (those two books are currently used by the Minister of Works);
- The interest of such a system of auxiliary books is to relate books of receipts and of expenditures to the master budget.

The use of a centralist system is consistent with the organization of account books within the Public Administration (De Swarte, 1885). It also exemplifies the importance of this system from the second half of 19<sup>th</sup> century on (Vlaeminck, 1979), when the journal has a predominant position compared with a balance sheet (Mattessich, 2003). But in the case of a great Exhibition and furthermore a public accounting setting, a journal is more important as the main goal is to control the use of funds and record all information needed for the management of this event.

The main difference between the accounting system used during the 1867 great Exhibition and the one used during the 1889 great Exhibition, is that the journal is parted from the ledger<sup>22</sup>. The journal used during the 1889 great Exhibition is called 'management journal'.

The following scheme describes the centralist accounting system used during the 1867 Great Exhibition.



<sup>21</sup> Archives Nationales F<sup>12</sup> 2993; Projet de règlement de comptabilité pour l'exposition de 1889, Archives Nationales F<sup>12</sup> 3816.

<sup>22</sup> Archives Nationales F<sup>12</sup> 2995.

A revenues book closely follow the classification of receipts of the master budget : receipts are pooled into chapters according to the various chapters of budgeted receipts in the General Budget. For example, in the receipts book of the 1867 great Exhibition<sup>23</sup>, each receipt is written up chronologically and total (or intermediate) amounts can be compared directly with budgeted receipts that are mentioned at the beginning of each chapter. In this receipts book are carried forward annual or weekly amounts: chapter 7 'change office' records only annual amounts, chapter 4 'Entrance tickets' and chapter 3 'subscribed tickets' record weekly amounts. Details are provided in auxiliary books such as Entrance tickets subscription book in which daily amounts are computed and statistical information are also included (number of entrance tickets subscribed by gender for example)<sup>24</sup>.

An expenditures book is very similar to a receipts book as it is divided into chapters of spending according to the various kind of budgeted expenditures in the General Budget. This book includes information about settlement orders (date and number of this order) and payment. Auxiliary books linked with this book are several :

- An engineers book<sup>25</sup> record every operations with contractors implied in the construction of the exhibition palaces. This is a double-entry book unlike others auxiliary books : payments of works done are debited and the nature of various works done by a contractor are credited;
- A book of orders of works and supplies is used to follow up purchases (description of works and supplies ordered without amounts and requisitioners)<sup>26</sup>;
- A book of vouchers (settlement orders) provided for spending payments<sup>27</sup> or a book for controlling expenditures<sup>28</sup>: spending orders (date and goal of the spending) and nature of the spending;

Cash books are very similar in their shape from an exhibition to another, the aim of this book is to balance outflows and inflows from a budget point of view. But it can be noticed a few specific characteristics :

- There is a chronological recording of receipts and spendings in these cash books but in the 1867 great exhibition cash book, inflows are credited and outflows are debited while in the 1889 great exhibition cash book, entries are the other way round;
- Periodicity of balances is unsettled: in the 1889 great exhibition cash book monthly balances are done while during the 1867 great exhibition, balances are done every five or seven days, its only while the opening of the exhibition that monthly balances are done.

The combined journal-ledger of 1867 great exhibition gives evidence, in its characteristics, of the impact that have writings about accounting systems with columns or classifications of accounts during 19<sup>th</sup> century. In France, indeed, Edmond Desgranges' combined journal-ledger knows a great success during the century not only because of the connection of two accounting books (a journal and a ledger) but also because it can adapt itself to the needs of traders or manufacturers and even receivers general (Nikitin, 2005). As a matter of fact,

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<sup>23</sup> Archives Nationales F<sup>12</sup> 3153.

<sup>24</sup> Entrance tickets subscription book, 1867 Great Exhibition (period from 01/20/1867 to 10/21/1867), Archives Nationales F<sup>12</sup> 3002.

<sup>25</sup> Archives Nationales F<sup>12</sup> 3155.

<sup>26</sup> Archives Nationales F<sup>12</sup> 2999.

<sup>27</sup> 1855 Great Exhibition, Archives Nationales F<sup>12</sup> 2905.

<sup>28</sup> 1889 Great Exhibition, Archives Nationales F<sup>12</sup> 3988.

the fifteen accounts used in the combined journal-ledger of the Exhibition are very close to the classification of Edmond Desgranges such as ‘Profits and Losses’, ‘Capital’, cash accounts (banks of the Exhibition), manufacturing accounts (‘Construction of the Exhibition Palace’, ‘Establishment of the park’) or personal accounts (‘Association of Guarantee subscribers’, ‘Master builders’, etc.)<sup>29</sup> (Vlaeminck, 1979). These accounts are duplicated from the budgets main chapters of receipts and expenditures which help to follow-up and control spendings and receipts as well as all operations implied with the holding of an exhibition. The success of such combined journal-ledger for accounting bookkeeping during the century can be glimpsed in the case of the 1867 great exhibition: among documents of archives, can be found an accounting system blueprint that has been submitted by a man named Mottier to the general commissioner, Frédéric Le Play as early as the beginning of the imperial commission activities<sup>30</sup>.

By comparing accounting books of 1867 great Exhibitions with 1889 great exhibition account books, some differences and evolutions may be noticed. Accounting practice during the Exhibition of 1889 seems more strongly influenced by the Italian School than before. The Italian school focuses on the administrative role of the accounting. For example, Guiseppe Bornaccini insists on the importance of rules and settled rational principles (Vlaeminck, 1977), these rules being formalized into an accounting code. Main elements which can testify the influence of the Italian accounting school in the accounting practice of the Exhibition are for example :

- From 1840 on, this school uses a specific vocabulary such as ‘Must’ and ‘Have’ in its important theories (Vlaeminck, 1977). This vocabulary is used in the ledger of the 1889 exhibition (while in 1867 are used ‘Debit’ and ‘Credit’). ‘Must’ and ‘Have’ are typical of the personalistic theory of accounting during the 19<sup>th</sup> century;
- Its influence is also noticeable in the choice of specific accounts such as ‘General Budget’, ‘Balance’ (‘opening balance’ and ‘closing balance’), ‘Treasury’ in the books of the 1889 Exhibition. The Lombard school, led by Francesco Villa, recommends a classification of accounts in three groups: account of persons, accounts of agents and recapitulative accounts, which include such accounts as opening balance, receipts and expenses, closing balance (Vlaeminck, 1977);
- The influence of the Italian school is also sensitive in the use of accounts such as ‘Treasury’, ‘Association of guarantee’ or ‘City of Paris’ that can be connected with Guiseppe Cerboni's writings. Cerboni recommends to open an account each natural or legal persons, capable of rights and obligations by themselves or their representatives (Vlaeminck, 1977; Matessich, 2003).

This influence is all the more interesting that Cerboni defines the purpose of the accounting function as the observation and deposit of the acts of its different administrative organs and not the study of the economic activity (Gomberg, 1929). It is above all a question of controlling and of supervising the actions of agents who are opposed to the suppliers of financial resources (in our case the State, the city of Paris or the association of guarantee) and the administrator of these resources. Thus, it becomes possible to link expenses with budgetary forecasts (expenditures and receipts foreseen, ordered and paid) and to draw evidence of the responsibilities of various administrative organs (Gomberg, 1929, Matessich, 2003).

<sup>29</sup> Archives Nationales F<sup>12</sup> 2995-2996.

<sup>30</sup> Archives Nationales F<sup>12</sup> 2993.

### 3.2 Information produced in the case of Great Exhibitions: a ‘public sector financial reporting’.

Budgetary documents of every Exhibitions are presented so as to respect the principles of the budgetary order, namely uniqueness (‘unicité’), universality (‘universalité’), yearly-basis (‘annualité’) and speciality (‘spécialité’) (Bottin, 1995; Paysant, on 1999):

- According to the principle of uniqueness, every revenue and every expenditure appear in a unique document, a master budget or an annual budget, submitted to approval;
- According to the principle of universality, no offsetting is made between revenue expenditures and revenue in a budget, being elaborated or definitive<sup>31</sup>;
- According to the yearly-basis principle, budgets are yearly based with no carry forward. This rule is never really applied in practice at the level of the State according to Paysant ( 1999 ), nor at the level of Exhibitions. Indeed, the budgets of Exhibitions regroup expenditures authorized at the beginning of a period and that must be executed within the exercise. If such is not case, they are brought forward<sup>32</sup>;
- According to the principle of speciality, funds are allocated to more or less precise use which are recorded into chapters of expenditures in the budgets. Every spending is presented and approved by chapters. During their occurrence, these expenditures are registered with a reminder of the chapter of affectation in the successive documents. But this speciality can also make reference to a State department. In fact, in the financial documents of Exhibitions, speciality was developed: by ministry, by chapter, by section of ministry<sup>33</sup> (which was exactly the same at the level of the State (Paysant, 1999)).

Accounting code fix the obligation to establish documents which aim is to follow-up expenditures by nature (according to the budgets) through the year in comparison with opened credits. Documents distinguish expenditures by nature (with a price and quantities detail), month after month with updated accumulations every month. These documents can be completed:

- by summary reports of expenditures according to expenditures forecasted or not compared with opened credits;
- by books analysing of the accumulation of expenditures according to the progress of works for example. Thus it becomes possible to follow the use of funds for the settlement of claims.

Payments orders are also closely followed according to the nature of the spending : amount of the order and payment made. Books can be kept about the details of vouchers produced to get the payment order. For receipts, statements are set up of recovered receipts stemming from concessions, rents and others<sup>34</sup>.

The follow-up of payments is an important device of the control in public accounts. Payment can be ordered only on the basis of vouchers in order to be able to connect it with the budget of expenditures. Vouchers and references to the budget help legitimize the use of funds allocated and to assess expenditures still to realize.

Various kinds of documents are established in order to follow-up expenditures and payments made. Specific

<sup>31</sup> Pour exemples : Archives Nationales F<sup>12</sup> 2993 ; Archives Nationales F<sup>12</sup> 3818.

<sup>32</sup> Pour exemple : Archives Nationales F<sup>12</sup> 2904.

<sup>33</sup> Pour exemples : Archives Nationales F<sup>12</sup> 2993 ; Archives Nationales F<sup>12</sup> 3803 B ; Archives Nationales F<sup>12</sup> 3159.

<sup>34</sup> Archives Nationales F<sup>12</sup> 3817.

documents are established recording all expenditures of a year that have been paid, that are still to be paid or expenditures to come. This follow-up can be made by ministries in charge of their payment; this follow-up can also be done recording past cumulated expenditures, current cumulated expenditures and future expenditures<sup>35</sup>. Monthly balances of cash books are another aspect of the follow-up of payments made as they provide information about funds used (payments ordered and done) and funds still to use<sup>36</sup>.

Monthly balances or financial statements are established in order to report to the government or the Commission. During the great Exhibition of 1867, trial balances are established which report the debit or credit balances of each accounts<sup>37</sup>. Financial statements report the total amounts of each kind ('chapters') of expenditures and receipts in order to show the surplus made or a deficiency. This financial report is detailed in appendices of this administrative report. In the documents of archives of the 1889 Great Exhibition as well as in the administrative report, two types of documents are presented:

- A General statement of account of receipts and expenditures dated of July 31, 1892 report expenditures and receipts by chapters, each total amounts are compared with forecasts in order to show variances<sup>38</sup>. Details of this document are enclosed in the appendices of the administrative report<sup>39</sup>;
- A General account dated of November 18, 1893 is a shorter statement focusing on total amounts of receipts and expenditures (detailed by great categories)<sup>40</sup>.

## 4. Concluding remarks

Great Exhibitions organized in Paris between 1855 and 1900 by both the State and the City of Paris give the opportunity to investigate public finance in practice: the implementation of the principles of budgetary order and public sector accounting as means of managing a large scale project. This is the more interesting that these principles have been settled at the beginning of this century only and that the public sector accounting code is still being updated during the period of time of the great exhibitions studied. As a matter of facts, unlike the British case which gave the impulse to launch such events in France, it was more difficult to gather financial contributions from private partners in France, so financial resources were allocated mainly by the French Government and the City of Paris and the use made of public funds had to be overlooked by codified rules and principles. The aim of this paper was to investigate public finance principles and their implement as very few papers have dealt with such topic before. From the point of view of accounting history, these Exhibitions offer the opportunity:

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<sup>35</sup> Archives Nationales F<sup>12</sup> 2904 ; Archives Nationales F<sup>12</sup> 3818 ; Archives Nationales F<sup>12</sup> 4417.

<sup>36</sup> Archives Nationales F<sup>12</sup> 3154 ; Archives Nationales F<sup>12</sup> 3217 ; Archives Nationales F<sup>12</sup> 4050 ; Archives Nationales F<sup>12</sup> 4430.

<sup>37</sup> Balance officielle du Grand-Livre établie au 31 mai 1866 et adressée par M. Le Play à M. Derrick membre de la Commission Impériale. Archives Nationales F<sup>12</sup> 2918.

<sup>38</sup> Tableaux financiers concernant l'exposition universelle de 1889, tableau n°13, version du 7 décembre 1892. Archives Nationales F<sup>12</sup> 3818.

<sup>39</sup> Rapport sur l'exposition de 1889, tome 2, statistiques.

<sup>40</sup> Tableaux financiers concernant l'exposition universelle de 1889, version du 26 octobre 1893. Voir Annexe VI. Archives Nationales F<sup>12</sup> 3818.

- To study the implement of the public budgetary procedure and of public sector accounting principals during a period of time when there is a change in political background;
- To investigate a budgeting process, public accounting practice and a 'public' financial reporting which may mirror the experience of French public administration of the time;
- To witness the influence of major accounting writings of the time (from the French or the Italian school) upon public accounting practice and a change is to be noted in the nature of this influence. During the first two exhibitions held under the Second Empire, accounting practice is influence by french accounting writers and private accounting. On the contrary, during the following exhibitions major accounting writers of influence are Italian and are focused on public accountability. This change appears to be consistent with the change in political background and the increased bureaucratic dimension of accounting codes during the last three Exhibitions.

Another very interesting aspect of these exhibitions is that public finance principles help to settle a management model: bureaucratic procedures and values along with specific modalities of control. The case of the great exhibitions exemplifies that is shaped during the 19<sup>th</sup> century a model of management that can be qualified as authoritative and based on technical knowledges, strict financial rules and personal competences. This model of management is also an ideal-typical model of management in private companies during this period and Pesqueux (2001) traces its origin back to public administration.

## 5. Bibliographie

### Archives Nationales

*Exposition universelle de 1855* : Archives Nationales F<sup>12</sup> 2904 ; Archives Nationales F<sup>12</sup> 2905 ; Archives Nationales F<sup>12</sup> 2906

*Exposition universelle de 1867* : Archives Nationales F<sup>12</sup> 2918 ; Archives Nationales F<sup>12</sup> 2995 ; Archives Nationales F<sup>12</sup> 2999 ; Archives Nationales F<sup>12</sup> 3002 ; Archives Nationales F<sup>12</sup> 3151 ; Archives Nationales F<sup>12</sup> 3153 ; Archives Nationales F<sup>12</sup> 3154 ; Archives Nationales F<sup>12</sup> 3155 ; Archives Nationales F<sup>12</sup> 3157 ; Archives Nationales F<sup>12</sup> 3159

*Exposition universelle de 1878* : Archives Nationales F<sup>12</sup> 3217.

*Exposition universelle de 1889* : Archives Nationales F<sup>12</sup> 3803 <sup>A et B</sup> ; Archives Nationales F<sup>12</sup> 3816 ; Archives Nationales F<sup>12</sup> 3817 ; Archives Nationales F<sup>12</sup> 3818 ; Archives Nationales F<sup>12</sup> 3970 ; Archives Nationales F<sup>12</sup> 3987 ; Archives Nationales F<sup>12</sup> 3988 ; Archives Nationales F<sup>12</sup> 3993 ; Archives Nationales F<sup>12</sup> 4050.

*Exposition universelle de 1900* : Archives Nationales F<sup>12</sup> 4417 ; Archives Nationales F<sup>12</sup> 4180.

### Bibliothèque des Arts Décoratifs

*Exposition des Produits de l'Industrie française, 9 fructidor an VI* - Documents officiels.

Commission Impériale (1857), *Rapport sur l'Exposition universelle de 1855 présenté à l'Empereur par SAI le prince Napoléon, président de la commission*, Imprimerie Impériale.

Commission Impériale (1864), *Rapport de l'Administration de la Commission Impériale sur le section française de l'Exposition universelle de 1862*, Imprimerie de J. Claye.

Commission Impériale (1869), *Rapport sur l'Exposition universelle de 1867 à Paris*, Imprimerie Impériale.

Ministère de l'Agriculture et du Commerce (1881), *Rapport administratif sur l'Exposition universelle de 1878 à Paris*, Imprimerie Nationale.

Berger G. (1885a), *Exposition universelle de 1889 – considérations générales sur son organisation*, ed. Berger-Levrault et C<sup>ie</sup>.

Berger G. (1885b), *Exposition universelle de 1889 – projet d'organisation financière*, ed. Berger-Levrault et C<sup>ie</sup>.

Picard A. (1891), *Exposition universelle de 1889 – Rapport général*, Imprimerie Nationale.

Picard A. (1902), *Exposition universelle de 1900 – Rapport général administratif et technique*, Imprimerie Nationale.

#### Autres sources

Amans P. (2002), Signification des indicateurs de gestion, Actes du 23<sup>ème</sup> congrès de l'AFC.

Bottin M. (1995), Villèle et le contrôle des dépenses publiques, Actes du colloque « Comptabilité publique – continuité et modernité », pp. 7-30.

Caron F. (1973), *L'histoire de l'exploitation d'un grand réseau – la compagnie des chemins de fer du Nord, 1846-1937*, éditions Mouton.

Clegg S. et Courpasson D. (2004), Political hybrids : toquevillean views on project organizations, *Journal of Management Studies*, vol 41, n° 4, june, pp. 525-547.

Ekelund R. & Hébert F. (1978), French engineers, welfare economics and public finance in the nineteenth century, *History of Political Economy*, 10:4, pp. 637-667.

Gomberg L. (1929), *Histoire critique de la théorie des comptes*. Thèse de doctorat ès sciences économiques de l'Université de Genève.

Lacombe-Saboly M. (1997), Hospital accounts and accounting systems: a study in the French region of Toulouse from the seventeenth to the nineteenth century, *Accounting, Business and Financial History*, vol.7, n°3, pp.259-280.

Lee T. A. (2000), A social network analysis of the founders of institutionalized public accountancy, *Accounting, Historians Journal*, vol 27, n° 2, december, pp. 1-4.

Lemarchand Y. (1999), Introducing double-entry bookkeeping in public finance, a French experiment at the beginning of the eighteenth century, *Accounting, Business and Financial History*, july 9:2, pp. 225-254.

Magnet J. (1995), Les règlements généraux sur la comptabilité publique au 19<sup>ème</sup> siècle, Actes du colloque « comptabilité publique – continuité et modernité », pp. 31-39.

Mattessich R. (2003), Accounting research and researchers of the 19th century and the beginning of the 20th century : a international survey of authors, ideas and publications, *Accounting, Business and Financial History*, vol 13, n° 2, juillet, pp. 125-170.

Nikitin M. (2001), The birth of a modern public sector accounting system in France and Britain and the influence of Count Mollien, *Accounting History*, vol 6, n° 1, pp. 75-101.

Nikitin M. (2005), « Edmond Degranges père et fils, de la tenue des livres à la comptabilité » in *Les grands auteurs en Comptabilité* sous la direction de B. Colasse, éd. EMS.

Paysant A. (1999), *Finances publiques*, édition Colin.

Pesqueux Y. (2002), *Organisations : modèles et représentations*, éditions PUF.

Rebérioux M. (1983), « les ouvriers et les Expositions universelles de Paris au 19<sup>ème</sup> siècle » in *Le livre des Expositions Universelles 1851-1989*, ed. Herscher.

Sautel G. et Harouel J. L. (1997), *Histoire des institutions publiques depuis la Révolution française*, Dalloz, 8<sup>ème</sup> éd.

Savoye A. (1989), « La présentation de Le Play et la méthode sociale », in *La méthode sociale, Abrégé des Ouvriers Européens*, éditions Méridiens Klincksieck

de Swarte V. (1885), Essai sur l'histoire de la comptabilité publique en France, *Bulletin de la Société de Statistique de Paris*, vol 26, n° 8, août, pp. 317-352.

Vlaemminck J. (1979), *Histoire et doctrines de la comptabilité*, Editions Praguos.