
Then and now: construction management practices in Romania and the Netherlands

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Abstract: The purpose of this study is to compare and contrast construction management practices in Romania and the Netherlands by focusing on the institutional context, used building systems, and labour organisation from 1945 until nowadays. Social, economic and historical aspects have also been taken into account, in order to provide useful insight on two countries that represent two 'worlds' (Western Europe vs. Eastern Europe), with different building philosophies. Data collection and analysis were based on interviews with experts in the field of civil engineering, correlated with various publications from both past and present times. The significance of this study lies in the fact that, although similar studies have been performed before, to the authors' knowledge there is little information about construction management in pre-1989 Eastern Bloc. This study compares an Eastern European country (Romania) with data from the construction management in pre-1989 Western European country (the Netherlands).

Keywords: Romania; the Netherlands; construction management; institutional context; building systems; labour organisation.

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1 Introduction

This paper will shed light upon the commonalities and differences between two different countries, from two different regions of Europe and which, until relatively recently, were under very different political systems: Romania and the Netherlands. Following the collapse of the Eastern Bloc, from the 1990s up to the early 2000s, the so-called ‘transition’ period manifested in Eastern Europe, marked by intense social struggles on the path to democracy and a free-market economy (Yoshii, 2002).

There is a very limited number of studies in the scientific literature addressing the comparison of construction management between these two countries (Chow et al., 2008; Halldórsson et al., 2008) or even countries within the same geographical area (Ketikidis et al., 2008). This research gap mainly has to do with the fact that, particularly in the case of pre-1989 Romania, there was very little data available about the construction management practices during that time. This can be explained by the fact that almost nothing, in terms of construction management permeated outside the ‘Iron Curtain’. Since both countries were – until 1989 – under different political systems, it became interesting to find information about them. Therefore, the major research question is:

What happened between 1945 and 1989 (and post-1989) in the Netherlands and Romania in terms of construction management practices?

The comparison between Romania and the Netherlands can be seen as relevant because, after the 1989 Revolution, Romania returned to capitalism. The post-1989 governments denied the previous economic policies and the development plans conceived by the Communist regime. As a consequence, in the construction industry, massive disorganisation ensued. The Netherlands did not have to contend with this situation. Furthermore, comparing building systems used between the two countries can also be considered to be significant within the scope of this paper. Romania went, in a quick succession, from very basic post-war building systems, to almost fully-industrialised construction and then regressed to the 'classic' building methods. However, the Netherlands has made steady progress towards industrialised building systems.

Both countries are compared on three dimensions influencing construction management practices: the institutional context, the building systems used and the organisation of labour. First, by describing the building systems used in Romania and the Netherlands insights are provided in the way construction was industrialised. Secondly, the institutional context attempts, by exploring some legal issues, to unveil the mechanisms which can lead to the progress or regress of a country, from a legal standpoint (Seaden and Manseau, 2001). The labour aspect aims to partially explain some problems encountered in both countries with the crucial cogs behind any construction project – the workers. It also tries to shed some light upon the dynamics behind the migration of the labour force from Eastern to Western Europe – and the reasons behind this phenomenon (Rodrigues-Planas and Jacob, 2010; Ștefănescu-Mihăilă, 2015).

Available information in the field of construction management was scarce at best. So far, comparatively few data have been available on the past, present and future building systems (and associated systems) in Eastern Europe. In order to obtain information about the construction industry and management practices, it was decided to interview experts from the construction industry field because they possess 'intimate' knowledge about the issues raised in this paper. Individuals which were active in the industry before 1989 were considered the most suitable candidates, as they worked during both eras. The questions which they were asked to answer were basically the issues discussed in this paper. Besides interviews, online sources are scant and most literature survives in paper form (mainly publications from the 70s and 80s, guides, laws and provisions) and in an overwhelming proportion, in Romanian language.

The structure of this paper is as follows: in Sections 2–4, the construction industry in both countries is described using the dimensions of: buildings systems, institutional context and organisation of labour. Subsequently, both countries are compared on these dimensions. Finally, conclusions are drawn.

2 The institutional context

2.1 The institutional context in the Romanian construction

2.1.1 Public financing of housing

The modus operandi for Romanian Construction Enterprises was to loan money from the (State-owned) banks to finance their construction activities. Formally, there existed four banks in pre-1989 Romania: BNR (The Romanian National Bank), BRD (The Romanian

Bank for Development), Banca Agricola (The Bank of Agriculture) and CEC (The House of Economies and Consignments).

In line with the provisions drafted by the Communist Party and the Government for the progress of the Socialist Republic of Romania there existed a nationwide building plan and strategy, correlated with another nationwide plan of factory construction. This was considered part of the drive towards the industrialisation of the country. The nationwide building plan had outlines for raw resources available in various regions, as well as data for the current and future number of citizens of a particular region.

Whole neighbourhoods were built, which, beside apartments, came complete with facilities such as schools, shops, etc. Furthermore, new universities, hospitals etc. were established. The nationwide building plan was passed over to the counties. Each county disseminated the plan and built the required structures in their respective regions, using State money.

Each county would send to the Government (under the umbrella of the 5-Year Development Plans) a so-called 'Request of Necessity', which elaborated, based on local-level analysis, the needs of the respective county (e.g., 500 flats, 3 schools, student accommodation with 200 rooms, etc.). The Government, in accordance with the nationwide building plan and the available budget, would allocate the resources. These resources were managed using "Balanta Nationala a Resurselor" (national database of available resources and their allotment). The resources were then directed to the local Construction Enterprises which would then build the required structures.

2.1.2 The problem of bureaucracy

In Romania, bureaucracy operates following a plain pattern which is damaging in the sense that it always leads to a vicious trail of paperwork. An example can be found in the request for a simple Property Permit. Besides a large number of papers required, the release of a Property Permit may take more than a year in some cases. This happens because, whilst a part of the administration actually works on the release of the Property Permit, many other civil servants are busy handling the required papers submitted to obtain the said document. The quite obvious issue is that the associated papers have little actual purpose in the procedure of granting a Property Permit, in effect creating stoppages and various impediments. This assortment of paperwork keeps the client 'on his toes' (going to various institutions to obtain the required papers in time), whilst distracting him/her from the main issue of actually obtaining the Property Permit. It also allows for the justified employment of extra civil servants, since there always is more paperwork to be processed.

2.1.3 The problem of corruption

In the current Romanian construction industry, the biggest single source of money is the funds earmarked for future investments and development. The biggest investor in Romania is still the State, through its public works. By their very nature, the civil servants also desire a 'cut' from these funds. This is the essence of the problem, as there is no clear, national classification of the construction companies and the fields of construction for which they are best suited according to their expertise. If such a classification existed, then corruption would be reduced, at least in the sense that only certain companies could bid for particular types of projects. As the situation currently

stands, even the smallest construction firms can compete for projects far outstripping their resources and experience.

Current Romanian legislation in the field of construction favours neither the business sector nor the client. In particular, there is no legislation to care for the client against the misdeeds of business people/organisations that have nothing to do with the construction industry. This gives birth to absurd situations, in which buildings are first completed and then the necessary paperwork which approves and validates a building is obtained afterwards. The lack of professionalism of the authorities is palpable and the promotion in various functions is (sometimes) done politically (Systems, 2017a, 2017b).

2.2 The institutional context in the Dutch construction

2.2.1 Public financing of housing

Like other nations that took part in World War II, when this conflict ended, the Netherlands faced a housing shortage as well; this started to juxtapose with the strong demographic growth, creating premises for a housing crisis. The solution came in the form of Dutch social housing and represents a model to be followed by other European countries. The Dutch social rental sector is broad, the dwellings are of a comparatively good quality but, above all, the whole system works without receiving significant subsidies. The heydays of social rental housing in the Netherlands were the period between 1950 and 1990. Considering the aforementioned reasons, the government started to undertake measures to avoid this housing crisis and started to provide subsidies to housing associations. This led to the emergence of large numbers of freshly-built social buildings. In the 1980s, the housing associations started to progressively receive more autonomy and in 1995 became financially independent. This was a result of the ‘grossing and balancing’ operation, in which the debts of the housing associations to the State were crossed-out, against future government subsidies. Furthermore, most municipal housing companies were converted to ‘standard’ housing associations. (Social housing in the Netherlands – The development of the Dutch social housing model, 2013)

2.2.2 The problem of bureaucracy

In the Netherlands, the general consensus about bureaucracy is that this process is transparent but over-regulated. Naturally, in order for a contractor to begin a building project, a Property Permit is required by law. Indeed, a collection of other papers is also needed, for example from the Aesthetics Commission and the City Council. Many additional regulations can be imposed, varying accordingly with the type of the construction project, especially regarding the environment, durability and sustainability of the building. The over-regulation part comes into play when applying for the said documents. The steps for obtaining these papers are unambiguous and explicit so the transparency aspect of the whole process is ensured. Generally, after three months, the authorities are compelled to give, at the very least, an answer with regard to the application for a Property Permit. Occasionally, an extra three months is needed for supplementary document processing.

2.2.3 *The problem of corruption*

Various instances of corruption do exist, though, not in the administrative system itself. For instance, sometimes people build dwellings first and then ask for permits, which are never granted. In some severe cases, the dwellings were just ‘left there’ after completion, with the owners never allowed by the authorities to live in. However, permits can be quite lenient, in the sense that they are not detailed and do not specifically describe how the building is going to be laid out. Another type of fraud (cca. 15–20 years ago) was the well-known – in the Netherlands – case of ‘Bouwfraude’, in which competitors in a bid would meet beforehand, making various arrangements for the upcoming bids. This resulted in the ‘rigging’ of the tendering process, in order to obtain more work -and thus profits – in various regions throughout the Netherlands to the detriment of the fair competitors. Finally, the lowest price bid – viewed as a winning criterion in the traditional building contract – spawned legal issues. It was not unusual for construction companies to begin work below the break-even threshold, following the winning of a tendering procedure, with the subsequent profit to be made coming from ‘extra work’ done on the construction site for which a construction company is legally entitled to compensation.

3 **Building systems used**

3.1 *Building systems in the Romanian construction*

Ever since World War II, the lack of proper housing has been a serious problem in Romania. The less-known, but quite damaging 1940 Earthquake (Calotescu et al., 2016), neglect, carelessness, war damage, followed by postwar lack of maintenance and inadequate repair – all took their toll on the Romanian national housing stock. Following the conclusion of the Second World War, Romania came under the USSR’s political influence and subsequent physical occupation, as a ‘satellite state’. The habitation crisis was aggravated by the new political regimes’ doctrine of industrialisation and build-up of financial capital. Amid the first actions taken to control and subdue the Romanian economy, the so-called ‘SOVROM’ (Soviet-Romanian) enterprises were set up (Salcă and Săvescu, 2016), the construction industry included. Hence, Russian skill, facilities, equipment etc. were imported. Low-rise (usually ground floor + 4 floors) construction of masonry structures – plain or with concrete elements – started, lasting approximately from 1955 to 1962. Following 1962, the SOVROMs turned into ‘Intreprinderi de Constructii’ (Construction Enterprises). The same construction methods and principles were kept until around 1970. After 1970, with yet greater priority placed on the reconstruction of the country, fast-building systems, with both high efficiency and relatively low costs were necessary. This signalled the start of prefabricated construction in Romania (Hunya, 1989). Around the 1970s ‘thaw’ in international relations, further prefabrication processes and project types were imported. It was assumed and planned, that making use of prefabrication and, to the greatest possible extent, industrialisation, the habitation crisis would finally be settled. Subsequently, the country as a whole could be organised more logically, as up until 1970, construction in both rural and urban areas had been somewhat chaotic (Hunya, 1989).

A tragic landmark in the Romanian construction industry was the 1977 Earthquake. Following the inevitable economic and human loss, all construction projects up to that

moment came under scrutiny and were subsequently improved; construction codes and regulations were revised and more thoroughly enforced for most types of buildings. The use of reinforced concrete frames (instead of prefabricated panels) was expanded during the late 1970s and early 1980s, as they were more resilient to earthquakes although prefabrication nevertheless played a significant role, at least as an industrial process. The height of the structures was also increased, due to the implementation of new construction technologies. ‘Intreprinderi de Constructii’ became Trusturi de Constructii (Construction Trusts) following restructuring, capable of more coordination and raised productivity. Currently, prefabrication is much reduced and chiefly used on utility hall-type buildings (e.g., supermarkets, workshops). The market was liberalised and real estate developers appeared, offering more types of building spaces than previously available. (Encyclopedia.com, 2017; Worldbank.org, 2017)

3.2 Building systems in the Dutch construction industry

Taking a look at the Netherlands, there are several different periods of progress in the construction industry. Following the cessation of World War II in 1945, it was recognised that the country needed to start postwar reconstruction. This led to the development of diverse industrial building systems (PSIB, 2004). From 1964, precast concrete building methods increased in prominence; their market share reached over 50% in just a few years. By mid-1970s, more emphasis was put on variation of projects as well as their size (smaller projects on average). Thus, small-scale stacking elements became the norm. Such building systems encompassed 70% of the market share, within one decade (Michael W. Anderson’s Blog, 2017). Pries and Janszen (1995) stated that this success was mainly due to an innovation policy, adopted and pursued. Nowadays, the output of the construction industry in the Netherlands is even more varied, with projects becoming smaller. Because the housing market slowed down, a large number of construction companies and real estate developers are investing in new housing concepts, with an eye towards the consumer (Pries and Dorée, 2005; Broft et al., 2016; van de Rijt et al., 2018).

4 The organisation of labour

4.1 Labour in the Romanian construction industry

4.1.1 The black market

The black market in Romania, construction industry included, was mainly born out of poverty and lack of a solid economic situation. Although the concept of black market was not unheard of in Romania before 1989, after the fall of Communism the situation spiralled out of control. The construction industry was not spared either. Although the phenomenon somehow decreased in its prevalence, it is still present to a large extent, especially in the rural areas. This is mostly due to the fact that State authority is still defective on a rural level and individuals opt to personally undertake the construction of new dwellings. All the required agreements with local workers are made on the spot, without any paperwork involved, cash-only payment. This is also the problem of current Building Legislation, since it allows for the building of (small) dwellings without seeking consultancy services or a construction company – only a building endorsement and a

building project are needed, in order for the project to be green-lighted by the authorities. The method of contracting is entirely the client's decision.

This is a major problem, since there is no control on how a dwelling is built, especially with respect to the construction standards and safety regulations, in contrast to the modern trend worldwide (Aliakbarlou et al., 2017). Because of this, the client or the contractor is not compelled to submit to the authorities any paperwork detailing the undertaken construction works. This automatically means that no taxes can be gathered. Small construction firms that deal with single-family dwellings, choose to do this sort of tax-free, spot-contracting. Only very recently, were some new provisions added to the Building Law that partially seek to correct these deficiencies (Mezei and Alba24.ro, 2017).

4.1.2 Prisoner/inmate labour

Before 1989, inmate labour was mandatory for those felons convicted of minor offenses. A sector which always accepted fresh labour was sought for and the construction business was an ideal nominee. This early 'rehabilitation' system helped to decrease the time an inmate had to spend behind bars and helped to support the upkeep of the penitentiaries. Furthermore, upon release the (former) inmate would be handed a sum of money proportional to the work he or she carried out while being behind bars (Systems, 2017c). Nowadays, the system operates in much the same way, except that prisoners are asked beforehand (due to EU regulations) if they want to perform construction site labour or not.

4.1.3 Lack of foremen

The so-called 'foremen schools' were closed shortly after the Romanian Revolution, in 1990. The major consequence, with which the Romanian construction industry still struggles, is that essentially the link between workers and engineers is virtually gone. Nowadays, in Romania, a civil engineer spends a sizable amount of time on the construction site and must be familiarised with execution and management aspects, in order to supplant the previous role of the foreman as much as possible (HotNewsRo, 2017)

4.2 Labour in the Dutch construction industry

4.2.1 The black market

A black market does exist in the Dutch construction industry. Chiefly for relatively small-scale works (e.g., works concerning single-family houses), black market labour is still used extensively. The savings, when compared to 'white collar' labour, can amount up to 60%. Moreover, an entire house can be built in this manner, without any sort of interference from the authorities. Nonetheless, the client must possess paperwork on the land and house itself (e.g., Building Permit, Land-use Plan Permit etc.). An interesting aspect is that most of the labourers who work on the black market do have a day job, and black market activities are treated as side-jobs, usually done at weekends or in the evenings of workdays.

4.2.2 Prisoner/inmate labour

The Netherlands does not employ a system of inmate labour, in the construction industry or in other fields. Despite this, while behind bars, prisoners are encouraged to learn a trade – this includes the field of construction.

4.2.3 Lack of foremen

There is a constant deficit of labour on construction sites, not just of foremen. This stems from the fact that all Dutch citizens are encouraged to seek higher education (hence, few people take up a lower qualification/lower paid job). In response, the construction companies do plenty of outsourcing; above all, as a result of the recent economic crisis and the European No-Border Policy, many people with lower wages from other parts of Europe (mainly Eastern Europe) are contracted to work on Dutch construction sites. Besides, subcontractors working on construction sites tend to subcontract as well, if only to make some profit. Currently, teams of workers can be observed – on Dutch construction sites – mainly composed of Polish, Romanian and Bulgarian workers (Johnston, 1991).

5 Comparison between both industries

Both countries had very different historical trajectories after World War II. In this section, the institutional context, the building systems used and the organisation of labour in both countries will be compared.

5.1 The institutional context

5.1.1 The problem of bureaucracy

When it comes to Romania, bureaucracy tends to grow instead of shrink, as for the release of basic documents, evermore additional papers (which have to be handled by additional civil servants) are required. It is a sluggish process and certain categories of paperwork may take upwards of a year to process. When taking a look at the Netherlands, bureaucracy is considered to be an overregulated but transparent process. Overregulation refers to the fact that there normally exists a sum of steps that one must precisely follow in order to obtain paperwork; there are no alternative procedures. Transparency comes into play because the said steps are normally straightforward and well-defined. Moreover, the processing time for documents is roughly three months. Chiefly, in Romania, bureaucracy seems to be more of a nuisance, rather than a useful tool meant to help the citizen when in need of paperwork. In the Netherlands, the process of obtaining documents is far more clear than in Romania, hence more efficient, but it is every now and then (too) rigid.

5.1.2 The problem of corruption

Romania has sizable problems with corruption, the construction industry included. Notably, the State and the Construction Law are inept at preventing abuses and unorthodox practices. Institutional corruption is extant too, with civil servants often

yearning for a 'cut' from a project, in exchange for hastening the release of documents. Regrettably, the client is commonly the party most likely to be exposed to various abuses and he or she can find themselves in some highly illegal situations, according to the Construction Law.

In the Netherlands, corruption can be found in tendering procedures as well as in contracts. The competitors occasionally 'rig' the bidding process by agreeing beforehand which of them should 'win' the bid. In the case of contracts, once in a while, underbidding has been used, with the leftover work to be completed, being done as 'extra-work', for which the construction company has the right to reimbursement. On the whole corruption in Romania is rather wide-ranging and more endemic than in the case of the Netherlands.

5.2 Building systems used

Industrialisation and extensive programs of social housing and development brought in a degree of civilisation and modernity unheard of in pre-1945 Romania. However, after the events of 1989, Romania lost much of its construction industry and regressed to mainly 'classic' building systems. The Netherlands experienced an evolution much like the other countries in Western Europe. Postwar, the need for rebuilding was recognised, in concert with constant economic development. The need for social housing was also present. Various building systems were tried, with varying degrees of success. What is important is that industrialised building systems are now a mainstay of the Dutch construction industry (unlike Romania), their advantages being long since recognised.

5.3 The organisation of labour

5.3.1 The black market

When referring to black market labour, both Romania and The Netherlands are affected. Nonetheless, the phenomenon in Romania is more pervasive than in the Netherlands. This is due to an absence of sufficient regulations and control mechanisms on the part of the State, as well as the deficiencies caused by the lack of a strong economy. The problem is markedly ubiquitous in the rural areas, where entire family dwellings are built using black labour, without any kind of paperwork and with disregard to safety regulations. Truly worrying is the fact that there are no future perspectives on how to alleviate this problem, in that the clients should be encouraged to 'go legal', abide by safety regulations and pay taxes to the State.

In relative opposition, in the Netherlands the black market phenomenon still exists indeed, but to a lesser extent. The black market is mostly employed for non-structural works and these kinds of jobs are regarded by workers as 'side-jobs'. The majority of them actually work legally and perform these types of activities in their free time. On the whole, although both Romania and the Netherlands suffer from the phenomenon of black market labour, it is more broadly encountered in Romania than in the Netherlands.

Prisoner/inmate labour: Romania still employs the system of prison labour, which was inherited from the era before 1989 but with modern, democratic provisions, such as the right of the inmates choose if they want to work on a construction site or not. The Netherlands does not utilise a prison labour system, however, the inmates are provided

with the chance to take up qualification classes in the field of construction. Overall, Romania employs inmate labour, whilst the Netherlands does not.

Lack of foremen: In Romania, there is a scarcity of foremen, primarily because there are no more vocational schools for this kind of specialisation. As a consequence, nowadays, on construction sites, engineers have to take on, to a considerable degree, the duties of the foremen. In essence, the link between the workers and the engineers no longer exists, with no effective replacement in sight. In The Netherlands, there is widespread lack of labour. All Dutch citizens are encouraged to pursue higher education, so there is an ample lack of native workers. Furthermore, due to high labour costs, a good number of construction companies resort to outsourcing, hiring mainly East European workers – thus lower wages can be paid (Johnston, 1991). Overall, although Romania is primarily affected by a shortage of foremen on construction sites, the Netherlands is stricken by general lack of workers.

6 Conclusions

This paper sheds light on the commonalities and differences between two (very) different countries, from two different regions of Europe and which, until relatively recently, were under very different political systems: Romania and the Netherlands. The two countries had distinct historical trajectories after World War II.

Concerning the institutional context, the desired ‘transition’ in Romania – from communism to capitalism – of State institutions was made haphazardly, without having a complete, well-thought out legislative pack, which would have been necessary in order to facilitate this ‘transition’ in a correct way. Ergo, due to the existing ‘cracks’ in the then-current legal system, corruption was inevitably born. Compared to this, the Netherlands never had to contend with this whole situation, but rather with various consequences of corruption inherently present in the legal system.

Industrialisation was introduced as well as extensive programs of social housing and development in both countries. However, after the events of 1989, Romania lost much of its construction industry and regressed to mainly ‘classic’ building systems. In the Netherlands various building systems were tried, with equally varying degrees of success. Industrialised building systems are now a mainstay in the Dutch construction industry (unlike Romania), their particular advantages being long since recognised.

Concerning labour, in Romania, following the disorganisation of the construction industry, it was inevitable that the mid-level vocational schools succumbed. The lack of any investment from the State in an emerging construction market, combined with a lack of any significant private investment, resulted in massive unemployment throughout the industry. Most of the workers simply gave up their job or went to Western Europe to continue doing their trade. In the Netherlands, there is general lack of construction site labour, because all Dutch citizens tend to pursue higher-education (thus, better paid) jobs. Combined with the high cost of living it is inevitable that the Netherlands has to ‘import’ labour from Eastern Europe.

As a final conclusion, it can be said that, in a way, the Netherlands ‘figured out’ that the use of industrialised building systems (usually precast systems), suits well with social housing construction. Romania actually used those – for much the same reasons – before 1989, but following the collapse of the Eastern Bloc, it ‘regressed’ to ‘classical’ building

systems, which are less suited for social housing. So, in a rather interesting fashion, “the tables have turned”.

The study in this paper is by no means exhaustive and is meant only to provide a ‘general picture’ for the construction management practices of both countries. Much research can still be done concerning the said issues and more aspects can appear and be discussed.

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