Builders' Wages in Fourteenth-Century Piedmont: The Role of Labour Markets and Seigneurial Dependency

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ABSTRACTS

Dieser Beitrag untersucht die Arbeitsbeziehungen im piemontesischen Baugewerbe des 14. Jahrhunderts und die Dynamik, die Beschäftigungspraktiken und Lohnniveau zugrunde liegt. Dank der von der Administration des Hauses Savoyen erstellten Rechnungsbücher ist es möglich, die Rolle des Arbeitsmarktes, der lokalen Gepflogenheiten und der Arbeitsbeziehungen bei der Festlegung der Löhne der Bauarbeiter zu bewerten. Die Studie berücksichtigt auch das hierarchische Verhältnis zwischen Arbeitern und Auftraggebern. Da es in diesem Gebiet keine Zünfte gab, war die Kombination von freier und unfreier Arbeit eine gängige Praxis. Aufgrund unterschiedlich ausgeprägter Abhängigkeitsverhältnisse und Mechanismen zur Kontrolle der Arbeitskräfte kann man nicht davon ausgehen, dass einige Arbeiter ihre Arbeitskraft völlig frei verkaufen konnten und andere eine solche Freiheit nicht hatten.

This paper investigates labour relations in the fourteenth-century Piedmont construction sector by examining the dynamics underpinning employment practices and wage levels. Thanks to the accounting sources produced by the administration of the House of Savoy it was possible to evaluate the role of labour market, local customs, as well as labour relationships in determining builders' wages. The study also considers the hierarchical relation which subordinate workers to client. Given the relative absence of guilds in the area, the combination of free and unfree labour was a common practice. Different degrees of dependency and mechanisms for control of workforces make it inappropriate to assume that some workers were entirely free to sell their labour and others had no such freedom at all.

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1. Introduction

Studying the construction of public buildings has always inspired researchers interested in investigating labour relations in the Late Middle Ages. Wage labour was largely used in the construction sector during this time, and it became widespread in European society, especially from the twelfth century onwards.[1] While accounting documents for construction work allow us to investigate wage levels[2] it is rather difficult to establish the factors that influenced wage levels because conditions of employment varied greatly and were highly influenced by specific local contexts. Several scholars have verified that salary levels were related to a combination of several factors, including skills, qualifications, age, and gender; however, wages often fluctuated according to the labour market dynamics of supply and demand, and these fluctuations were mostly caused by factors such as daily shifts and seasonal work. Such factors played a major role in construction, when the impact of guilds on relations between public clients and workers was weak.[3] No policies ensured either uniform working hours or equal minimum wages for different professional categories. Construction workers were defined as "*Artigiani senza bottega*" (Artisans without a workshop) in a recent overview of medieval labour history in Italy.[4] This was because their work did not pivot around the Italian 'bottega' but depended on the professional relationships created on construction sites. Master builders were self-employed workers, not subject to particularly stringent regulations, and they did not use guilds to obtain protection or better contractual terms. Together, these factors strengthened the individual dimension of the relationships between qualified master masons and public authorities. An analysis that considers the prosopographies of individual workers is important to the recent historiographical debate that has questioned, on the one hand, the validity of data based on average wages, and on the other hand, the characteristics of wage labour itself.[5]

1 M. Bloch, Le maçon médiéval: problèmes de salariat, in: Annales d'histoire économique et sociale 32 (1935), pp. 216–217; B. Geremek, Le salariat dans l'artisanat parisien aux XIIIe–XVe siècles. Etude sur le marché de la main d'oeuvre au Moyen Âge, trad. fr., Paris etal. 1968, pp. 53–57; Ph. Bernardi, Bâtir au Moyen Âge (XIIIe-milieu XVIe siècle), Paris 2011, pp. 18 et seq.

2 The debate that has animated historiography since the 1970s is still open on this issue. J. Demade, Produire un fait scientifique. La méthodologie de l'histoire des prix entre structures académiques et enjeux intellectuels (milieu XIXe-milieu XXe), Paris 2011. An extensive and accurate historiographical synthesis on the subject can be found in the recently discussed doctoral thesis by Thomas Roy: T. Roy, Rémunérations, travail et niveaux de vie à Dijon à la fin du Moyen-Age. Université Bourgogne Franche-Comté, 2019.

3 D. Balestracci, 'Li Lavoranti non Cognosciuti'. Il Salariato in una Città Medievale (Siena 1340–1344), in: Bullettino Senese di Storia Patria 82–83 (1975–76), pp. 67–157; G. Cherubini, I lavoratori nell'Italia dei secoli XIII–XV: considerazioni storiografiche e prospettive di ricerca, in: Artigiani e salariati. Il mondo del lavoro nell'Italia dei secoli XII–XV. Decimo convegno internazionale del centro italiano di studi di storia e d'arte di Pistoia (9–13 ottobre 1981), Pistoia 1984, pp. 1–26, at 6–9.

4 F. Franceschi, Il mondo della produzione: artigiani, salariati, corporazioni, in: Id. (ed.), Storia del lavoro in Italia. Il Medioevo. Dalla dipendenza personale al lavoro contrattato, Roma 2017, pp. 374–420 (at pp. 400–405).

5 J. Hatcher/J. Z. Stephenson (ed.), Seven Centuries of Unreal Wages. The Unreliable Data, Sources and methods that have been used for Measuring Standard of Living in the Past, London 2018.

This paper investigates labour relations in the fourteenth-century Piedmont construction sector by examining the dynamics underpinning employment practices and wage levels. During that period, several Piedmontese communities found themselves under the control of a cadet branch of the Savoyard dynasty, the first ruler of which was Philip of Savoy-Achaea.[6] It was a time of political, financial, judicial, and territorial consolidation of the Savoy-Achaea appanage.[7] This process also included a 'monumental politics' that take place between 1314 and 1335, when several construction projects were undertaken, both for the maintenance of existing buildings and the construction of new edifices. Considerable financial resources were invested in the construction of a prestigious palace in Pinerolo (1314/15); castles and fortifications in Turin (1317/20), Fossano (1327/32), and Moretta (1324/25); and a public market in Bricherasio (1326/28). The accounts produced by the local clerks in managing the construction work contain records of incomes and expenditures for materials and workers that constitutes the main sources for this research.[8]

2. Labour Organization and Wage Levels

On the prince's construction sites, various types of professionals were employed, reflecting a division of labour relating to the various construction tasks and to the materials used. Masons, carpenters, stonecutters, stonemasons, furnace workers, transporters, and blacksmiths were present in large numbers, but most workers were unskilled labourers.[9] The latter participated in different phases of building projects: they were involved, usually directed by master masons, in the most physically demanding jobs, such as demolition, extraction and transportation of raw materials, excavation of foundations, preparation of lime and several other tasks. Methods through which masters and labourers were hired and paid were heterogeneous. Building work in medieval Europe was typically priced in three ways: by the day, by a piece rate (e.g. the number of stones carried or

6 The homonymous principality was created in 1294. On the Achaea, see F. Gabotto, Storia del Piemonte nella prima metà del sec. xiv (1292–1349), Turin 1894; P. L. Datta, Storia dei principi di Savoia del ramo d'Acaia, signori del Piemonte, dal mccxciv al mcccxviii, 2 vols, Turin 1832; and most recently A. Barbero, The feudal principalities: the west (Monferrato, Saluzzo, Savoy and Savoy-Acaia), in: A. Gamberini/I. Lazzarini (ed.), The Italian Renaissance State, Cambridge, UK 2012, pp. 177–196.

7 R. Comba (ed.), Storia di Fossano e del suo territorio, 4 vols, Turin 2009–2012, II. Il secolo degli Acaia (2010) (in particular the essays of Paolo Grillo and Riccardo Rao); R. Comba, Rifondazioni di villaggi e borghi nuovi nel Piemonte sabaudo: le villenove di Filippo d'Acaia, in: Piemonte medievale: Forme del potere e della società. Studi per Giovanni Tabacco (Turin, 1985), pp. 123–141 (reprinted in R. Comba, Contadini, signori e mercanti nel Piemonte medievale, Rome 1989, pp. 40–50).

8 Archivio di Stato di Torino, Sezioni Riunite, Camera dei Conti di Piemonte, Conti delle castellanie (hereafter ASTo, SR, CC), art. 1–85.

9 G. Pinto, L'organizzazione del lavoro dei cantieri edili (Italia centro-settentrionale, secoli XIII–XV), in: Artigiani e salariati. Il mondo del lavoro nell'Italia dei secoli XII–XV. Decimo convegno internazionale del centro italiano di studi di storia e d'arte di Pistoia (9–13 ottobre 1981), Pistoia 2008, pp. 69–101 now in: Id., Il lavoro, la povertà, l'assistenza: ricerche sulla società medievale, Roma 2008, pp. 31–60); S. Victor, La construction et les métiers de la construction à Gérone au XVe siècle, Toulouse 2008, p. 151.

carved or the length and volume of the built structure), or by the job or task.[10] The decision to utilise one or another method depended on different circumstances, not only linked to the specialisations of workers but also, and above all, to the type of work carried out and the management choices of the client, which played an important role in defining the most common types of contract and prompted a shift in management methods that significantly influenced labour relations. Philip's first building sites were characterised by highly centralised management that required a direct relationship between the client and both skilled and unskilled workers. The contract most favourable to the exercise of such direct control was a daily contract, which determined remuneration calculated as a daily rate. The widespread use of day wages reveals a huge uncertainty in workforce management and a limited ability to predict costs. This development led to an increasing division between strictly administrative, technical, and management tasks within the construction site, a process that demanded the production and application of technical and administrative forms of knowledge.[11] The delegation of responsibilities to a skilled workforce was also made possible by the development of trustworthy and increasingly specialised administration officials, who offered their expertise to various building sites. Prince Philip's reorganisation of the management of building sites from the centralized organisation characteristic of the early years to an outsourcing system, led to an increase in piece rates and task-based work to the detriment of per diem employment agreements.[12]

Thus, a daily wage was not only used for unskilled labour. Many skilled workers were paid by the day, and even those who benefited from task-based contracts sometimes received day wages. A greater use of the other types of remuneration in the more advanced stages of the Prince's building projects led us to consider the reasons for choosing either a measured contracts based on price per unit, or a fixed fee. The latter was preferred for small-scale operations, such as the construction of drainage ditches, latrines, or chamber floors, because it was more immediate and functional. When, on the other hand, the dimension of the work was greater, as in the case of the construction of the Fossano moat and all the masonry of Turin castle, it was more appropriate to establish a precise fee based on a calculation of the architectural dimensions. This was also facilitated by the fact that large-scale projects required more planning in terms of dimensions and construction methods and a greater ability to control the workforce through *mensuratores* (surveyors) who continuously supervised building operations.

10 Pinto, L'organizzazione del lavoro, p. 47.

11 A. Longhi, Contabilità e gestione del cantiere nel Trecento sabaudo, in: M. Volpiano (ed.), Il cantiere storico: organizzazione, mestieri, tecniche costruttive, Savigliano 2012, pp. 105–123, at p. 123.

12 V. Bufanio, Accountability in building projects in Piedmont under Philip of Savoy-Achaea: Administrative Experimentation and political consolidation, in: I. Epurescu-Pascovici (ed.), Accounts and Accountability in Late Medieval Europe. Records, Procedures, and Socio-Political Impact, Turnhout 2020, pp. 73–89.

Tab. 1: Mode of remuneration in Piedmont's construction site

Worker	**Role**	**Tasks**	**Price per unit**	**Source**
Germano da Casale	Master mason	All the masonry of Turin castle	60 s./trabucco	CCTo, c.11v.3
Iohannes de Travaglono	Master mason	External moats of Fossano castle	40 s., 6 d./ trabucco	CCFo, p. 36
Iohannes de Travaglono	Master mason	Internal moats of Fossano castle	35 s./trabucco	CCFo, p. 37
Worker	**Role**	**Tasks**	**Overall remuneration**	**Source**
Iohannes de Bergondia	Mason	Latrine	12 s.	CCMi
Alberto and associates	Bricklayer	Water drainage channel	12 l.	CCPi
Coleto and associates	Bricklayer	Kitchen	17 l.	CCMi

*Trabucco: unit of measurement corresponding to approximately three metres; s.= solidi, d.= denarii, l.=lire. Sources: CCTo= F. Monetti, F. Ressa, La construzione del castello di Torino oggi palazzo Madama, Torino 1982; CCFo=Falco, Giorgio, Sulla costruzione del castello di Fossano, Torino 1936; CCMi= State Archive of Turin, Sezioni Riunite, Miradolo, art. 44, par. 2; CCPi= State Archive of Turin, Sezioni Riunite, Pinerolo, art. 60, par. 2.

The dynamics of carriers, who connected workshops with on-site activities, were a peculiar case. A distinction must be made between carriers who possessed wagons and teams of oxen and those who used only their own physical strength. While the latter were paid and hired by the day, as was common among labourers,[13] the former, as shown in table 2, enjoyed more heterogeneous forms of remuneration. An overall wage was paid for the transportation of products acquired from very distant places, because for journeys lasting several days and night, a day was not an adequate unit of measurement. However, this was very seldom the case, as materials purchased from areas far away from the site were usually transported for free or directly by the material supplier, especially in the case of timber and iron.[14] For the transportation of bricks, lime, and stone from kilns and quarries near the construction sites, a daily wage or piecework rate was preferred. Some

13 F. Monetti/F. Ressa, La costruzione del castello di Torino: Oggi palazzo Madama, Torino 1982, p. 74 (c. 22r); G. Carità (ed.), Il castello e le fortificazioni nella storia di Fossano, Fossano 1985, p. 35.

14 Monetti, Ressa, La costruzione del castello di Torino, pp. 94–95 (c. 36r–v).

typical factors characterised each construction site. In Pinerolo, except for the contract awarded to Giovanni Boverio for the transportation of sand, which was calculated according to the size of the construction for which it was intended, transportation costs were always calculated as a daily fee. On the Moretta site, by contrast, the wagon was used as a unit of measurement, but always to establish the daily remuneration of each employee: *Peronus* and *Guillelmus* were in fact paid 4s per wagon per day. Transportation costs charged according to the quantity of material transported related to large quantities of bricks and lime. Contractual agreements with kiln workers provided a reference framework for the quantities of material that would be produced and facilitated the allocation of precise quantities to be transported by each carrier, encouraging this type of agreement.

For unskilled labourers wages were always calculated on the basis of the working day, regardless of the duration of their employment. Even in the only case found in the sources of a task-based contract for two labourers, *Ugonetus* and *Menachus*, for the transportation of quarried stone near the site of Pinerolo, the remuneration was still calculated by the day.[15] Nevertheless, wage labour should not be associated with precariousness because, contrary to expectations, unskilled labourers did not constitute a homogeneous group from a socio-economic point of view, and the working relationships they entertained were heterogeneous. Although most labourers worked only occasionally in the construction sector, others developed a certain expertise in the sector, thanks to which they received higher wages and gained greater stability of employment. A great example is provided by the biography of the labourer Matheus Berberio, who was employed for the construction of Palatine chapel in Pinerolo. Matteo, between September 1314 and June 1315, worked at the quarry for 122 days supported by a team of four other workers of which he was the supervisor alongside his relative and associate *Murisius* Berberio. Being the leader of a team, albeit a small one, gave him some autonomy and experience that were probably the reason why he enjoyed better working conditions compared to his colleagues. He received a remuneration ranged between twenty-four and twenty-eight denarii, that was much higher than that of other workers, who frequently earned around eighteen denarii per day, within a wage range that varied from seven denarii, during winter or in periods of low demand, to twenty denarii.[16] Furthermore, Matheus's salary was equivalent to and sometimes higher than that of some skilled master artisans who worked with him at the quarry; for example, master masons Manfredo and Guglielmo of Cuneo worked 14 and 10 days respectively, receiving a daily wage of 24 denarii, while Giacomo de Conis worked only 3 days for a total of 84 denarii. The bricklayers who worked on the construction site, rather than in the querries, earned a lower remuneration that varied from 18 to 20 denarii per day.[17]

15 ASTo, SR, CC, Pinerolo, art. 60, par. 2, n. 2 (1318–1319): "Idem libravit ultra predicta Ugoneto et Menacho manoalibus qui ceperunt in tascam auferendi lapides quos levabant et extrahebant Matheus et Murisius de pereria iusta cortinas et fueruntad dictam opera per novem dies ut in particulis" (31 s., 6 s.).

16 ASTo, SR, CC, Pinerolo, art. 60, par. 2, r.1 (1314–1315), f. o; ASTo, SR, CC, Pinerolo, art. 60, par.2, r.2 (1316–1318).

17 ASTo, SR, CC, Pinerolo, art. 60, par. 2, r.1 (1314–1315), f. a.

Tab. 2: Types of remuneration for carriers on Piedmont construction sites

Worker	Task	Type of remuneration	Remuneration	Sources
Perono de Andixello, Guillelmo Maneria	6.000 bricks with12 pairs of oxen	By day	4 s./wagon/day	CCMo, c.2
several carriers	Large beams with 36 pairs of oxen	Overall	7 l., 19 s., 6 d.	CCBr
several carriers	Lime from Lusen	By unit	6 s./sestario	CCBr
several carriers	Lime from Villa to Fossano with 37 wagons and oxen	By day	11 s./wagon/day	CCFo
several carriers	Lime from Villa to Vottignasco and Solerio with 61 wagons	By day	10 s./day	CCFo
several carriers	338.000 bricks and 2.000 tiles from local furnace	By unit	5s./1000 bricks	CCFo
Iohannes Cratus	Transportation of stones for 24 days from the castle quarry with 1 wagon and 2 oxen	By day	4 s./day	CCPi, f.5
4 labourers	Transportation of stones	By day	16 d./day	CCPi, f. o
Iohannes Boverius, asinaro	Taschiam for the transportation of sand required for building 153 trabucchi of wall	By unit	6 s./trabucco 45 l., 8 s.	CCPi, c. q
Antonius Carellus	2.000 bricks	By unit	5 s./1.000 bricks	CCTo, c.41r
Antonius Carellus	Sand and bricks for 3 days	By day	5 s./day	CCTo, c.41v

Sources: CCTo= F. Monetti, F. Ressa, La construzione del castello di Torino oggi palazzo Madama, Torino 1982; CCFo=Falco, Giorgio, Sulla costruzione del castello di Fossano, Torino 1936; CCPi= State Archive of Turin, Sezioni Riunite, Pinerolo, art. 60, par. 2; CCMo= State Archive of Turin, Sezioni Riunite, Moretta, art. 51, par. 2; CCBr=State Archive of Turin, Sezioni Riunite, Bricherasio, par.1.

Thus, skills were not a guarantee of higher wages or even secure long-term employment. The main advantage for the most specialized workers was that their total income was often based on various tasks assigned to them by the client. The carpenter Ruffino de Ferro, who, on November 15, 1314, was awarded a contract for the construction of wooden frame structures continued to be paid with a day rate for the inspections he conducted looking for the needed timber as well as for carrying out other small maintenance tasks on wooden tools.[18] *Jacobinus de Palacio* on June 9, 1314 was paid 1s for supervising the labourers working at the quarry and, on the same day, also received another sous for helping count the quarried stones.[19]

There were also forms of bargaining between clients and skilled-workers, which influenced wages and employment conditions. In 1317, Prince Philip signed a contract with master mason *Germanus* from Casale Monferrato. *Germanus* was a pivotal figure because, in addition to managing most of the masonry work, he was a real intermediary in the work and himself hired many workers from all over the principality and beyond. His remuneration was significantly superior (four times higher) compared to the fees received by other masons, considering that his contract also included accommodation and meals and regular extra payments for buying clothes.[20]

His privileged position was certainly due to his skills as a bricklayer but also to the fact that his experience enabled him to resolve organisational problems that would otherwise have fallen to the central administration. In particular, his role as intermediary between the prince and the workers ensured the employment on site of highly specialised workers from all over Piedmont, as well as a large number of labourers who otherwise would have been difficult to recruit quickly. No less important was the fact that Germanus, as someone from outside the principality, was not a subordinate of the prince; therefore, the prince exercised less power over him.[21] For many other workers, however, having the prince as a client affected their opportunities to sell their labour freely.

The personal power that the prince exercised over many other workers who were also his subordinates greatly affected the possibility of free labour negotiations.

18 Ibid., r. 1, f. n.
19 Monetti, Ressa, La costruzione de castello di Torino, c. 29v.
20 Ibid., c. 122r.8.
21 Ibid., c. 109v.

3. Labour Markets and Political Dependency: The *royde* System

One of the assumptions on which modern wage labour is based is free labour and its free exchange with another good: money.[22] For this reason, one of the pivotal themes in the debate on the existence and prevalence of salaried work in the Middle Ages concerns the use of forced and unpaid labour. In the construction sector, unpaid work was an extremely rare condition, but some exceptions, including the construction at Piedmont, led us to examine the subject more closely.[23] Having the Prince as client meant being involved in a peculiar system based on juridical pre-established agreements between the central authority and local communities, which had an impact on the nature of the work provided, because of the extracontractual power exercised by the prince in his institutional role. The submission agreements that Philip I had signed with dominated communities included certain feudal rights that obliged communities to provide workers free of charge. These claims were sometimes also noted in local statutes approved and granted by the prince under the name of *royde*. In Pinerolo's statutes there is a section which establishes the possibility for a clerk to "ordinare roydas et facere fieri ad eorum voluntatem ubicunque et quandocunque eis videbitur faciendum sub poenis et bannis ordinandis per eosdem et quod habeat potestatem imponendi et mittendi massarios ad predictam".[24]

The *royde* were most often requested when many workers had to be found quickly and there were budget restrictions, as was the case in the early stages of construction. For the construction of Fossano castle the foundations were excavated thanks to the work of 1,503 labourers, of whom 1,223 received a *loderium seu salarium* and the remaining 280 worked *ad roydam locatam et concessam per communem Foxani*.[25] Although the case of Fossano is better known to historiography, Prince Philip of Achaea constantly used unpaid work inside building sites throughout the principality, in particular for transport operations.[26] Building accounts constantly refer to *royde bovum* for the transportation of lime, sand, and wooden boards. Expenditure items also frequently concerned sums paid to ambassadors who went to request *royde*,[27] or costs for wine and meals served to labourers who worked *ad roydam*.[28] In Fossano, in addition to the 280 workers who excavated the foundations, 378 locals[29] and hundreds of men from all over the principality were

22 K. Marx, Forme economiche precapitalistiche, Roma 1967, p. 67.
23 Pinto, L'organizzazione del lavoro, pp. 45–46.
24 D. Segati (ed.), Gli statuti di Pinerolo, in Monumenta Historiae Patriae 20. Leges municipales 4, pp. 5–281. Cap. 199. De roydis, p. 72.
25 Carità, Il castello e le fortificazioni, (1324–1327), p. 34.
26 ASTo, SR, CC, Pinerolo, art. 60, par. 2.
27 Ibid.
28 Ibid.
29 Carità, Il castello e le fortificazioni. IV (1331), p. 39; V (1332), p. 41.

employed *ad roydam* to transport lime using their own wagons and oxen.[30] *Royde* were also used, albeit less regularly, for some occasional transportation of beams and stones.[31]
The proportion of unpaid labour that the prince could use differed across his building projects. It largely depended on building's dimensions and on the ability of local officials to ensure that agreements between the prince and the various communities were respected. In addition, an important role was played by the prince's privileged relations with local landlords, especially in Turin where Philip maintained close relationships with monasteries. On 5 December 1317, the abbot of Stura provided a wagon for the transportation of large stones,[32] while the abbot of San Begnino guaranteed at his own expense the transportation of beams cut into the woods belonging to the abbey.[33] Furthermore, the abbot of San Mauro provided several *royde* for the transportation of sand and raw materials[34], the abbot of Casanova, provided 4 oxen, 2 wagons, 2 transporters and 1 *converso* who worked from January to March 1318,[35] and the friars of Moncalieri were also involved.[36]
The royda provided a great opportunity for the prince to reduce transportation costs, which, together with the materials purchased, were often the main expenditure for financing the construction.[37] The only case in which the use of this solution does not emerge is that of the construction of Bricherasio's market. This probably depended on several factors, above all the scope of the construction, which was much smaller than that of the other projects and was completed using almost exclusively local materials. The simultaneous timing of the work at Bricherasio (1327–1330) with those at Fossano (1324–1332) and Miradolo (1330–1334) also played an important role. The need to reduce transportation costs led the administrators to find another way of achieving the objective. Many of the contracts awared to suppliers of stone, bricks and carpentry provided for a fixed fee which included, in addition to the supply, the materials' transportation. However, transport costs in Bricherasio accounted for a higher percentage of the total costs, about 12 per cent, than in the other sites, where the percentage was about ten per cent. The effective cost for Bricherasio was 44 l., 7 s., 3 d., but this was not comparable, for example, with the amount spent in Fossano of 2,433 l., 17 s., 3 d.
The convenience for the client is clear but what did it mean for workers to be employed *ad roydam*?

30 Ibid., pp. 39–40.
31 Carità, Il castello e le fortificazioni. IV (1331), pp. 35–36.
32 Monetti, Ressa, La costruzione del castello di Torino, p. 53 (c. 6v).
33 Ibid., pp. 115–116 (c. 61v).
34 Ibid., p. 132 (c. 85v), p. 138 (c. 91v).
35 Ibid., pp.162–163 (c. 133v).
36 Ibid., p. 164 (c. 135r).
37 The example of the construction of Milan's cathedral is significant: in order to reduce the cost of transporting marble from the Candoglia quarries: in order to reduce the cost of transportation of marble from the Candoglia quarries, it was transported by canals. On this, see P. Grillo, Nascita di una Cattedrale: 1386–1418, la fondazione del duomo di Milano, Milano 2017, pp. 108–119.

The fact that the work was not paid by the prince does not mean that it was necessarily unpaid. The demand for *royde*, in fact, affected the whole community rather than single workers, and the council nominated people to perform the work and determined the remuneration.[38] Nevertheless, the work, although paid, remained forced and the remuneration was not negotiable. Municipal council records frequently mention the municipality's power to oblige (*compellere*) those named to carry out the work and to do so at the established price, excluding any possibility of negotiation.[39] During times of financial hardship, when the municipality did not have the liquidity to pay salaries immediately, workers were paid through a discount on direct tax.[40] The impact on communities was therefore quite considerable, especially when they were required to finance and manage a major part of a construction project.

This happened in 1328 for the construction of moats at Moretta, which were entrusted entirely to the Turin community. In a letter dated 3 August 1329, the community of Turin was informed that it would be responsible for the construction of the Moretta moats.[41] The community then sent twelve ambassadors to the prince to inform him of its financial difficulties, which would make it impossible for them to cover these expenses, for which they requested exemption.[42] However, the petition was unsuccessful, clearly showing how unbalanced the power relations were. On 18 August of the same year, the municipality signed a contract with the master *Iohannes de Zaonund* to whom the work was entrusted.[43]

Viewed from another perspective, the *royde* were also an element that historiography would define as "extra-economic" and therefore capable of disrupting the equilibrium of the labour market. More precisely, employing a significant number of workers 'at no cost' could have reduced the labour costs by allowing the client to offer lower wages. However, comparing possible yearly variations in wage trends with the times when *royde* were most used, the *royde* do not seem to have affected wage levels.[44] The annual variation in wages

38 To satisfy the prince's request for the transport of a certain quantity of wood, on 27 August 1351, the city council of Turin set up a special commission to organize the transport of the wood to the city: "ad faciendi fieri unam rodiam 25 carorum lignorum tam in Taurino quam in Grugliasco et Drosio et finibus Taurini et costituendi salaria facientibus roydam expensis communis vel aliter secundum quod eis videbitur'; il carico della royda venne infatti suddiviso fra le comunità rurali del contado torinese che le soddisfarono a loro spese, e la stessa Torino i cui massari la gestirono al 'precio qui poterit meliori": M. Baima (ed.), Libri consiliorum (1351–1353), Archivio Storico della città di Torino, Fonti 4, Torino 1999, pp. 48–49 (27/08/1351). In Turin, the cost was divided among the quarters: Ibid., (28/10/1351), p. 57.

39 Ibid. (19/11/1352), p. 120; ibid. (17/11/1353), p. 163.

40 M. Baima (ed.), Liber consiliorum 1365–1369, Archivio Storico della città di Torino, Fonti 5, Torino 200, p. 114: "[…] et habeat pro quolibet royda solidos 5 viennensium qui eis excussentur et compensentur in prima talea pro comune Taurini fienda". Cf. A. Barbero, La classe dirigente e i problemi di una città in difficoltà, in: R. Comba (ed.), Storia di Torino. II. Il basso medioevo e la prima età moderna (1280–1536), Torino 1997, pp. 261–297, at pp. 261–264.

41 M. Baima (ed.), Liber consiliorum 1325–1329, in: Archivio storico della città di Torino, Fonti 1, Torino 1992, pp. 164–166 (6/08/1328).

42 Ibid., (09/08/1328), pp. 166–168.

43 Ibid., (18/08/1328), pp. 171–172.

44 When royde were introduced in mid-February 1315, the transporters' wages were at the same level as the previous

was due to another kind of factor which can only be investigated by looking beyond building sites.

4. Pluriactivity and Income Diversification: Working in Agriculture

Although some labourers found in the building sector the only occupation appropriate to their expertise, for others, employment in construction was only a secondary and occasional activity to increase their income, derived mainly from employment in the agro-pastoral sector.[45] Building accounts often mention *camparios* (peasants) and *vitoni* (mountaineers), and the latter especially depended on seasonal work to diversify their incomes gained from working in agriculture, crafts or on construction sites. Notably, *vitoni* were often employed as carriers in construction activities because they owned beasts. Nevertheless, pluriactivity is not an easy phenomenon to detect, and historians have frequently seen evidence of it only indirectly in annual wage records, which showed a rise coinciding with various events in the agricultural calendar. A rise in wages in harvest months have led historians to believe that the agro-pastoral and construction sectors shared the same recruitment pool for labourers.

However, such correspondences are difficult to analyse locally because documentary evidence does not always allow precise comparisons to be made. In addition, understanding pluriactivity by analysing only seasonal variations in building trade wages poses problems closely linked to the sector itself. Increase or decrease in construction salaries often depended on construction phases, on their schedules, and on project finances, and are therefore difficult to associate directly with external factors.[46] Moreover, most construction activities took place outdoors and were therefore influenced by the weather and daylight hours, resulting in seasonal variations in the workload and thus also in wages,[47] which were sometimes regulated by specific legislation.[48]

It is also rather complicated to determine whether the wages of labourers in agriculture were higher than those in construction. For Piedmont, it is possible to compare the builder's wages with those received by the workers in the prince's vineyards and fields. Carlo Rotelli dedicated a book to Piedmontese agricultural wages,[49] but it did not always manage to avoid over-interpretation of sources, which resulted in unreliable daily wage

month: ASTo, SR, CC, Pinerolo, art. 60, par. 2, rot. 1, f. I; and also at the end of February, always around 2 soldi per animal employed: ibid., f. I.

45 For non-agricultural forms of income, see Ch. Dyer, Standard of living in the Later Middle Ages. Social Change in England c.1200–1520, Cambridge 2012, pp. 131.

46 Ph. Bernardi, Le temps du travail sur les chantiers médiévaux: quelques réflexions à partir des comptabilités avignonnaises, in: C. Maitte/D. Terrier (ed.), Les temps du travail. Normes, pratiques, évolutions (XIVe–XIXe siècle), Rennes 2014, pp. 119–140.

47 In Milan, there was a specific day on which winter wages began to be used, 15 September. There were also specific officers, the "correctors of wages in winter time", Grillo, Nascita, p. 125.

48 Ch.-M. de La Roncière, Prix et salaires à Florence au XIVe siècle (1298–1380), in : Collection de l'EFR 59 (1982), p. 322.

49 C. Rotelli, Una campagna medievale. Storia agraria del Piemonte fra il 1250 e il 1450, Torino 1973.

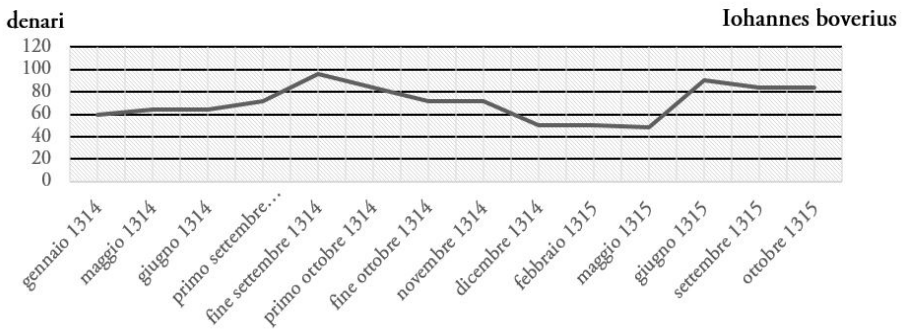
data.[50] For example, peasants' average daily wages were obtained using this expenditure note: "[libravit] in eisdem vineiis sapandi mensis madii et iunii anno 1316, et fuerunt ibi 299 sapatores et quidam manuales cariore_29 l., 10 s."[51] From this notice, the author assumes an average daily wage of 23,1 denarii[52] although the note did not provided any information about the daily wages received, as the actual working days were not mentioned but only the number of workers employed. The same assumption was made for 1326; due to the note: "Item libravit in ipsis vineis sapandis mensis aprilis et iunii in quibus intraverint 427 sapatores capientibus diversa precia ut in particulis_45 l., 10 s."[53] A daily wage of 25 denarii was calculated.[54] A salary of 25 denarii for hoeing in spring was very high if we consider that in the same months and in the same year in nearby Moretta the prince granted a maximum of 18 denarii, but frequently 16 denarii (see table 3). These data for Moretta are more realistic because it is certain that they refer to daily wages, as shown by the expenditure notes: "[libravit] in vigneta sapandis hoc anno 1326, mensse aprilis et madii, et fuerunt ibi quatraginta quinque sapatores, 22 quorum ceperunt pro die 16 d. et 23 ceperunt 18 d. pro quolibet".[55]

The data from the village of Moretta can be useful for understand whether the presence of the construction site contributed to the increase in labour prices. The Moretta building project was in progress from 22 March 1324 to 22 January 1326, and the agricultural wages covered a period from 14 June 1324 to 14 June 1326. A comparison of wages between 1324–1325 and 1326 can therefore provide interesting information on this subject. As shown in table 3, however, there were no significant variations in wages in the years 1324–1325 compared to those in 1326 when the site was no longer active. The only variations with any importance occurred annually and seasonally, and in the case of vineyards as for meadow mowing, they were justified by notes explaining that "pro minori precio habere non potuerunt occaxione messium ut dicit" (lower labour costs were not possible due to the harvest period).[56] The impact on wages of an increased demand for workforce therefore occurred every year regardless of the construction work, and although it is probable that the main activity of many construction labourers employed on the prince's building sites was agricultural, it is not possible to verify this with certainty. However, a stronger impact on labour price inflation was certainly observed for carriers who possessed the fixed capital for exercising their profession, i.e. carts and oxen. In September 1324, payments made to the donkey-drivers Guirardo Vicolio, Petro Pelayre and Raymondino Capie of Cavour for carrying lime must have seemed very high to the

50 These doubts are also noted by Rinaldo Comba in his review of the book: R. Comba, Su una campagna medievale: il Piemonte fra XIII e XV secolo, in: Rivista storica italiana 87 (1975), pp. 736–748.
51 ASTo, SR, CC, art. 60, Pinerolo, par. 1, rot. 6 (1316–1317), f. 6.
52 Rotelli, Una campagna, p. 307.
53 ASTo, SR, CC, art. 60, Pinerolo, par. 2, r. 3 (1326).
54 Rotelli, Una campagna, p. 307.
55 ASTo, SR, CC, art. 51, Moretta, par.2, r. unico, conto 2 (juin 1325–juin 1326).
56 ASTo, SR, CC, art. 51, Moretta, par.2, r. unico, f. i.

person in charge of the castle works, leading him to specify that "erant carrieres propter vendimias" (transport was carried out during the grape harvest period)."[57]
Many other similar references can be found in the construction accounts of other localities. The official in charge of administration and accounting for the Pinerolo site in 1315, in order to explain the increased salary of two transporters, Michele de Segnero and Giovanni Boverio, from 6 solidi to 8 solidi in September, specified that the increase was due to the concurrent grape harvest (*in tempore vindemiae*).[58] Also in Turin, in June 1318, some transporters saw an increase in their remuneration from five to six solidi *propter messes qui ascendant* (because of harvest time),[59] and also in Fossano there was an increase from 60 denarii to 84 denarii for "tempore messium" or "cariores in portum propter messes".[60]

Fig. 1: Variations in the annual salary of Iohannes Boverius, Pinerolo



57 ASTo, SR, CC, art. 51, Moretta, par. 2, f. 3.
58 ASTo, SR, CC, Pinerolo, art. 60, par. 2, r.1 (1314–1315), f. h.
59 Monetti, Ressa, La costruzione del castello di Torino, p. 89 (c. 32v).
60 Carità, Il castello, p. 3.

Tab. 3: Daily wages of agricultural and vineyard workers in denarii, Moretta

	1324	1325	1326
agricultural work			
Mowing july	56	54 (85,5%) 56 (14,5%)	54 (24%) 56 (76%)
Mowing september	48	54 (71,4%) 44 (28,5%)	40 (63,6%) 48 (36,3%)
Fenatores* july	28	28 (61%) 24 (39%)	
Fenatores september	18		
labourers july (transportation)	28		
labourers september (transportation)	20		20 (72,7%) 22 (27,2%)
labourers october (transportation)	12		19
peasants september	24		
peasants october	16	24	
peasants october	30		
peasants may (bean harvesting)		18 10 women	18 10 women
vineyard work			
labourers march		16	
Hoeing may			16 (48,8%) 18 (51,2%)
Hoeing august		24	
labourers march/april			14 16
labourers june/july			26 (10,8%) 28 (49%) 30 (40,2%)
labourers august/september			24 (60,8%) 20 (14,5%) 19 (24,6%)
labourers october/november	14		
Grape harvest september			18

* Those who dried grass to make hay.
Sources: ASTo, SR, CC, art. 52, Moretta, par. 2, ff. 9.

For transporters, the increase in wages can also be verified, despite the lack of specific indications such as those already mentioned, by individual annual fluctuations. A strong increase in remuneration was evident between the end of September and mid-October at the time of the grape harvest and between mid-June and mid-July during the grain harvest. In the case of Iohannes Boverius, his remuneration peaked at 96 denarii at the end of September, compared to 72 denarii at the beginning of the same month, as well as in June 1315, when the harvest coincided with intense activity on the building site (see above, figure 1).

5. Conclusions

Construction work has often been of interest in economic and social history studies investigating living standards and long-term trends in wage series. Less frequently, it has been the real subject of scholar interest.[61] The Piedmontese case, thanks to the peculiarities of the relationships existing between clients and workers, showed that an analysis of individual workers and the local socio-economic context is crucial for a more precise understanding of labour dynamics. Any attempt to simplify and rigidly categorise workforces fails to explain the heterogeneity that, as we have attempted to show, characterised wage levels and labour relations. Wage labour, although widely used on the Piedmontese construction sites, took different forms, sometimes constituting an opportunity and sometimes a cause of precariousness. Furthermore, in addressing the issue of the *royde system,* it became apparent that there was no linear progression from forced labour to free wage labour. Different degrees of dependency and mechanisms for control of workforces make it inappropriate to assume that some workers were entirely free to sell their labour and others had no such freedom at all.

61 E. Anheim/V. Theis, Introduction, in: P. Beck/Ph. Bernardi/L. Feller (ed.), Rémunérer le travail au Moyen Âge. Pour une histoire sociale du salariat, Paris 2014, pp. 21–25 (p. 24).