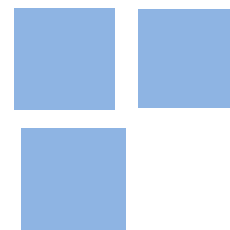


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plantation, Brazil (1846-1977):
New sources of microdata &
guidelines on creating physical and
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BRUNO GABRIEL WITZEL DE SOUZA

LEONARDO ANTONIO SANTIN GARDENAL



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Bruno Gabriel Witzel de Souza (bwitzelsouza@usp.br)

Leonardo Antonio Santin Gardenal (leonardo.gardenal@usp.br)

Abstract:

The Ibicaba Project was an initiative in the overlapping fields of economic and business history, cultural heritage preservation, and digital humanities to create a new physical and digital collection for Ibicaba, one of Brazil's most important historical plantations. This paper first presents the contents of the ensuing digital archive, the Ibicaba Collection. Its 205 digital objects, totalling ca. 65,000 digitized pages, refer primarily to accounting and managerial records of that plantation's labor and rural management between 1846 and 1977. High frequency microdata on labor productivity and remuneration, household budgets, consumption prices, output and input costs, and asset prices are now readily available for crucial historical junctures, including the pioneering hirings of European indentured laborers to coffee plantations and Brazil's immediate post-Abolition era. Paucity of similar microdata remains a bottleneck for new advancements in quantitative historical research in low- and middle-income countries. Material conservation is crucial to safeguard unique sources that are currently unknown even to official repositories, while their digitalization eliminates barriers to scholarly research. To support similar efforts in material and digital conservation of interest to economic history, this paper further documents the protocols of the Ibicaba Project for creating new in situ collections with rural archives and producing high quality digital surrogates for online publication. Under strict safety measures for personnel and sources, this paper describes all steps necessary for documental surveying, preventive conservation (mechanical cleaning, de-metalization, planification, minor repairs, and in situ storage), and digitalization (image capturing, metadata production, and digital storage) of rural archives.

Keywords: Ibicaba, Vergueiro & Cia., Levy S.A., Rural accounting, Plantation History, Labor History, Digital Humanities

JEL Codes: N01, N56, N36, N86

The archives of *Ibicaba plantation*, Brazil (1846-1977): New sources of microdata & guidelines on creating physical and digital collections from rural archives

I. Introduction

“[Labor, livelihood, and immigration in a Brazilian plantation: The archives of *Ibicaba farm*” \(henceforth the *Ibicaba Project*\) was a project on material and digital conservation executed in *Ibicaba*, one of the most important plantations of nineteenth century Brazil, located in the western plateau of the province of São Paulo.¹ The project aimed at conserving previously endangered paper-based historical objects related to *Ibicaba* and digitizing their contents. The *Ibicaba Project* delivered a new physical collection for material conservation in *Ibicaba farm* itself, as well as the open-source \[Ibicaba Collection\]\(#\), which contains digital surrogates from two collections related to that plantation’s history.² The \[Ibicaba Collection\]\(#\) is embedded into the \[Modern Endangered Archives Program \\(MEAP\\)\]\(#\), an initiative from the *Library of the University of California, Los Angeles \(UCLA\)*, to support the conservation \(material and digital\) of endangered collections around the world.](#)

This paper has two independent yet complementary goals. The first is to describe the contents of the digital collection, which contains new microdata of interest mainly to labor, agricultural, prices, and business history. The second is to document the protocols adopted or elaborated for the creation of *Ibicaba’s* physical and digital collections. Under strict safety measures to personnel and sources, these guidelines might prove useful to economic and business historians conducting research with endangered collections in low- and middle-income countries.

The [Ibicaba Collection](#) comprises 205 digital objects totalling *ca.* 65,000 digitized pages. It has put together, for the first time in digital format, two physical collections that had been put apart in the late 1970s and that are now owned by two distinct organizations: [Ibicaba farm](#) itself and [Paulo Masuti Levy Library](#). The vast majority of digital surrogates are from accounting ledgers referring primarily to labor or rural management. Labor accounting records contain data on labor output, productivity, and remuneration of various ethnolinguistic groups, as well as household budgets, consumption, and price series at the micro level. Rural management records, in turn, include high frequency series on agricultural outputs, input costs, asset prices, revenues, and yearly profits, not only from *Ibicaba*, but also from other farms owned by its late proprietors.

These sources are invaluable in themselves, not least for the prominent role that *Ibicaba* played in the history of European immigration to Brazil, which had major consequences for the gradual emergence of non-captive labor markets in the long run. Beyond pioneeringly adopting a number of new agricultural technologies, *Ibicaba* became internationally famous for an institutional innovation that changed labor history in Brazil, namely the systematic

¹ Originally in Limeira County, *Ibicaba* is currently located in Cordeirópolis County.

² This article distinguishes *Ibicaba* as a historical plantation from its current management as a farm.

employment of European indentured laborers in the coffee economy as of the 1840s (Buarque de Holanda 1941; Stolcke and Hall 1983; Witzel de Souza 2024).³ The [Ibicaba Collection](#) sheds new light onto these crucial junctures of immigration history, including the first hirings of indentured laborers, the consolidation of agricultural labor markets in the immediate post-Abolition (1888), and of the socioeconomic ascension of its second proprietors - German immigrants first arrived in *Ibicaba* as indentured laborers, who bought the then bankrupted plantation in 1890. Section II of this paper provides a detailed account of *Ibicaba*'s history and describes the contents of its digital collection. Documents are categorized by main theme (labor or managerial accounting) and types of account.

The *Ibicaba Project* can also be seen as a renewed effort to collect and preserve sources in rural Brazil containing microdata of interest to economic and business history. Some of its spin-offs include an ongoing (2026) project⁴ to scale up material and digital conservation to five other rural units, as well as a new concerted strategy to locate, preserve *in situ*, and digitize historical records of rural Brazil, prioritizing those most acutely at risk. At relatively low costs and under indispensable safety protocols, economic and business historians can support similar projects for structuring new physical and digital collections with endangered materials of interest to the discipline, particularly business archives in rural environments.⁵ To support similar initiatives, this paper documents the operational steps taken by the *Ibicaba Project* to create the new collection. Section III describes the measures of physical conservation adopted for the creation of *Ibicaba farm*'s new physical collection: (1) First documental survey to delineate content, identify causes of endangerment, and order objects by urgency of material conservation; (2) Measures of preventive conservation: Mechanical cleaning, de-metalization, planification, and minor repairs - which must be carried out in conjunction with or after training by professional archivists; and (3) *In situ* storage, *i.e.* without removal from original repositories, that maximizes the expected lifespan of historical paper-based collections. Section IV, in turn, describes the creation of the digital collection: (1) Image capturing and editing; (2) Metadata production with controlled vocabularies and homogenous descriptive categories; and (3) Digital storage.

The *Ibicaba Project* thus adds to the efforts of creating new, usually "big", databases that characterizes much of recent scholarship in economic history (Mitchener 2015; Gutmann, Merchant, and Roberts 2018; Sula and Hill 2019; Jones 2023). This type of data-driven research has been made possible and, to a large degree, molded by growth in computational and digital storage capacity, as well as accessibility to low-cost hardware, including capturing devices.⁶

³ *Ibicaba*'s first proprietary firm (*Vergueiro & Co.*), however, remained the largest slaveholder in Limeira County at least up to the 1870s (Marcondes 2021). The collection unfortunately does not contain data on slaveholdings.

⁴ MEAP's "*Accounting for the Countryside Project*". See the concluding remarks of this paper for details.

⁵ The total budget of the *Ibicaba Project* was 25,000.00 USD.

⁶ This has, however, introduced new challenges to automatizing the transcription of data onto computer-readable formats (Gutmann, Merchant, and Roberts 2018, pp. 285-6). In economic history, transcription costs are augmented by irregular layoutings (Blomqvist *et al.* 2023; Dahl *et al.* 2023a); idiosyncratic handwritings and non-standardized characters (Bailey *et al.* 2023; Postel 2023); and annotations belonging to different authors and various historical periods (Dahl *et al.* 2023b) - all of which are present in the [Ibicaba Collection](#).

Figure 01 - Illustration of different types of ledgers from the *Ibicaba Collection*



Notes: Illustrative images only. Sizes of physical objects vary; click on the links for information on dimensions.

Since Kris Mitcheners's (2015) prognostics and Myron Gutmann *et al.*'s (2018) review of ranks, some of the most innovative research in economic history and closely related fields have revisited classical questions by using computational tools over newly digitized sources. In low- and middle-income countries, however, paucity of historical microdata, particularly curated in formal repositories, remains a crucial bottleneck (Saleh 2013; Fourie 2016; Palma 2019; Lagakos and Shu 2023; Jenkins and Rubin 2024). Lack of funding and of institutional support, poor management, and even historically-targeted destruction of primary sources for political reasons are serious issues that Brazilian history shares with most low- and middle-income countries (Berrance de Castro 1965; Slenes 1983).⁷ This paper discusses some innovative ways by which economic history might support the conservation of collections of ample cultural value, and how cultural heritage preservation might be indispensable for collecting historic data that would have been lost otherwise. In this connection, it should be recalled that the *Ibicaba Project* was part of the [Modern Endangered Archives Program](#) (MEAP), which is committed to fostering the digital preservation of endangered materials around the world, especially in regions “with limited resources for archival preservation” ([MEAP 2026a](#)).⁸

Most projects in material conservation nowadays carry with them inestimable new tools for digital preservation. Before discussing some of them, it is important to highlight that academic efforts to preserve collections very similar to those discussed in this paper have a long scholarly tradition, including in economics proper. In the first decades of the twentieth century, beyond a number of papers using historical accounting data as their main sources,⁹ the discovery and creation of new historical collections, including of plantation records, was of great interest to economists (*AEA* 1911, 1915, and 1923). Rural accounting was further used in contemporaneous debates on the socioeconomic positioning of the ex-enslaved in the American South (Stone 1902; 1905; 1906 reply to Dubois 1906);¹⁰ and farm accounting played

⁷ This is obviously not to diminish the herculean accomplishments of GLAM institutions, statistical bureaus, and research centers working with data curation in those countries. Rather, the issue is about preserving data (microdata, in particular) in non-professional and politically neglected environments.

⁸ MEAP is institutionally affiliated to [UCLA Library](#) and financed by [Arcadia Fund](#). Its [Portal](#) contains [100.000+ digital objects](#) from 44 completed and 34 ongoing projects (April 2026). MEAP provides the following [grants](#): (1) *Project Grants* for digitalization and documentation (*e.g.* the *Ibicaba Project*), or curation of digital surrogates; (2) *Planning Grants* for evaluating and preparing collections for future digitalization; (3) *Emergency Grants* for rescuing collections under imminent threats; and (4) *Regional Grants* for creating organic digital collections from three or more distinct collections (*e.g.* the *Accounting for the Countryside Project*).

⁹ Systematic rural bookkeeping was picked up by British settlers in American colonies, as was the interest in them by scholars of the American colonial past; *AER* frequently published reviews related to such research (*e.g.* Pitman 1915; *AEA* 1928). Excluding specialized journals in rural and agricultural history, financial history, and accounting history proper, much of research using rural accounting published in *The Journal of Economic History* and *The Economic History Review* refer to British medieval manors, ecclesiastical accounts, and poor relief; long-distance trade and commercial houses in the Early Modern Period; agricultural production in colonial America and, particularly after the *Cliometrics Revolution*, post-Abolition U.S.; and ongoing research on the history of prices, wages, and household budgets.

¹⁰ Works by historian Ulrich Philipps on slavery and plantations, frequently using accounting ledgers as sources, were well-received by economists (*AEA* 1910, 1914; Bogart 1910; Snively 1920; *AEA* 1927a). Mitchell (1929) even commended Phillipps's (1929) book for preserving “a record that is fast disappearing”. Modern readers are cautioned on the explicit racist premises of some of the historical authors listed, especially Stone and Phillipps.

an important role in early debates and estimations of production functions (Wright 1917; Tintner 1944; Smith 1945).¹¹

In Brazil, systematic efforts to collect, curate, and analyze plantation records contributed to the consolidation of History as a formal academic discipline by the second half of the twentieth century (ANPUH 1962, pp. 298-9; Rodrigues 1978, p. 18; Camargo Jr. 2015; 2016, p. 86). Perfecting a research agenda set up by historian Sérgio Buarque de Holanda in the 1940s, in the 1960s Jeanne Berrance de Castro and José Sebastião Witter pushed forward the surveying and creation of historical archives in the Brazilian countryside, including with objects from prominent plantations.¹² Berrance de Castro's agenda and pedagogical program led, among others, to the preservation of *Santa Gertrudes plantation's* historical archives and to a preliminary, but discontinued, survey of *São José* plantation, both in Santa Gertrudes County (Berrance de Castro and Baiocco 1969).¹³ Witter (1969) explored for the first time historical records in the very *Ibicaba plantation*. These conservation efforts gave rise to a series of papers documenting the discovery and organization of new "source inventories" (Berrance de Castro 1963, 1965, 1967; *Idem* and Witter 1964; *Idem* and Baiocco 1969; *Idem* and Scarano 1973; Witter 1971a, 1971b, 1974; Martins Ribeiro 1974);¹⁴ and to innovative quantitative assessment of historical rural records (Bassanezi 1973; Faro Leal 1973).

The *Ibicaba Project* and its spinoffs, including this paper, take up the baton of those pioneering works. Tools have changed substantially since the 1960s, but the goals remain unaltered: to chart unknown historical collections, particularly those at risk; to help preserve them for the benefit of local communities; and to promote rigorous analyses of their contents, particularly for the innovativeness of the microdata they uniquely contain. To a large extent, this agenda echoes in 2026 the excitement that historian Charles Andrews uttered in 1915 about records from a colonial Rhode Islander who owned a sugar plantation in Antigua. Andrews argued that collecting "actual business records of a dozen commercial houses (...) would probably enable us to effect some important modifications in the current conclusions"; in his case, regarding American colonial commerce (Andrews 1915, p. 317); in ours, regarding labor, agricultural, price, and business history in the Brazilian Empire and First Republic.

II. *Ibicaba*: The Plantation & Collection

For its central role in immigration history and consequent implications for Abolition in Brazil, *Ibicaba* has been an object of interest to politicians, policymakers, foreign and domestic visitors, scientists, and scholars for almost two centuries. Moreover, given the exceptional number of literate laborers it employed by the mid-nineteenth century, much has been written

¹¹ In *AER's* "Reviews" from "Accounting, business methods, investments, and the exchanges", publications on agricultural and rural accounting were frequently listed (Taylor *et al.* 1913; *AEA* 1913 and 1922; Ise 1920; Gray 1923; Bennett 1926; Hibbard, Gray, and Ely 1926; *AEA* 1927b, Brown; Hopkins 1936 and *QJE* 1942, 1949).

¹² Buarque de Holanda supervised a number of now classical theses on the history of the Brazilian sugarcane and coffee economies, including Berrance de Castro's (1968) and Witter's (1969).

¹³ The *Accounting for the Countryside Project* is currently digitizing two collections from that plantation.

¹⁴ 167 out of 501 papers presented at the *Brazilian Association of History Educators* (ANPUH) in 1961-1979 related to the surveying and presentation of primary sources, mostly from new local archives (Camargo Jr. 2015).

not only about *Ibicaba*, but from within it. Immigrant letters, memoirs, and entire pamphlets in favor and against immigration to the Brazilian coffee economy have been written about it or in there (e.g. Perret G ntil 1851; Davatz 1858; Vergueiro 1874; Schmidt [n/d]).¹⁵ Contemporaries have thus bequeathed us with numerous sources, including reports, quantitative data, and rich iconographies. The goal of this section is not to survey the richness of those sources or the academic debates thereupon derived, which the authors have done by occasion of the plantation’s bicentennial, in 2017 (Witzel de Souza and Santin Gardenal 2021). Rather, we aim at describing *Ibicaba*’s history based on its proprietorship and management history. This will allow consultants of the [Ibicaba Collection](#) to better understand the logic behind its objects.

II.I. The Plantation

The object, literally, that motivates our historical analysis is a hardwood cupboard that stores the paper-based historical objects preserved by the *Ibicaba Project* in the farm itself (see Figure 06-B). To consult the historical ledgers and documents from that cupboard, the modern visitor will be welcomed by the Hayden Carvalhaes family to the farmhouse complex. To the right of the farmhouse built up by the Levy family,¹⁶ the visitor will find a long roofed corridor that leads to *Ibicaba*’s historical office room, built by the Vergueiro family.

These names summarize the three eras in *Ibicaba*’s proprietorship and management. Founded by the late Senator of the Brazilian Empire, Nicolau Pereira de Campos Vergueiro, *Ibicaba’s Vergueiro era* (1817-1890) was marked by institutional innovations that shaped Brazilian labor and immigration history. Bought in a public auction by a consortium led by brothers Sim o and Jos  Levy in 1890, the *Levy era* (1890-1977) was characterized by the astonishing socioeconomic ascension of immigrants first arrived in Brazil as indentured sharecroppers. Finally, with the lands around the farmhouse bought in 1977 by Jos  Theodoro Hayden Carvalhaes, a traditional coffee factor from the port city of Santos, the *Hayden Carvalhaes era* has been characterized by a turn towards the cultural value of the plantation’s heritage.

II.I.I. The Vergueiro era (1817-1890)

Nicolau Pereira de Campos Vergueiro (1778-1859) was a Coimbra Law graduate who immigrated to Brazil from Portugal in 1802. After practising law in the city of S o Paulo and marrying into the local elite, Vergueiro soon started his career to become one of the most influential figures of the Brazilian First Empire. He joined in the expansion of the agricultural frontiers towards S o Paulo’s central-western plateau, first with royal land grants (“sesmarias”) from 1807 and 1814, with which he founded the *Limoeiro* plantation and sugarmill in Constitui o County and the *Monjolinho* ranch for cattle raising in the then distant wildlands of Araraquara County.¹⁷ Vergueiro simultaneously held the office of “Judge of Royal Land

¹⁵ Memoirs of Carlota Schmidt, *n e* Brune (1875-1965), adoptive daughter of Jos  Vergueiro. The memoirs have been published by Heflinger Jr., Masuti Levy, and Cantalice (2005 eds.)

¹⁶ On the building, cf. Freitas Levy Farto ([1994] 2023, pp. 501-2).

¹⁷ The *Limoeiro Mill* was managed by Jo o Manuel Vergueiro, Nicolau’s brother, and had been bought in partnership with Jos  de Andrade Vasconcellos, Nicolau’s father-in-law (Luz and Gouv a 2021, pp. 119-20).

Grants” (1811-1818) and started his political career, first elected to the Municipal Council of São Paulo City in 1813 (Forjaz 1924, pp. 7-27; Luz and Gouvêa 2021, pp. 119-20).¹⁸

In 1816, Vergueiro founded a Consortium (“Sociedade”) with Brigadier Luiz Antonio de Souza Queiroz to produce sugar from cane and to raise cattle.¹⁹ That Consortium obtained parts of the royal land grant of *Morro Azul* hill, where Vergueiro founded the *Ibicaba sugarmill* in 1817. With the passing away of Brigadier Souza Queiroz, the Consortium was dissolved in 1825. Vergueiro retained *Ibicaba* and land strips incorporated into it from the region of the *Tatú river* (Forjaz 1924, pp. 27-9; Luz and Gouvêa 2021, p. 120; Tamiazo 2021, p. 96).

In line with the region’s specialization in late colonial Brazil, *Ibicaba* started as a sugarcane plantation and mill, but the first 6,000 coffee trees were planted as early as 1828 and the plantation soon grew to become one of the largest coffee producers of São Paulo’s central-western plateau (Kuntz Busch 1967; Pissinato and Vian 2021, p. 36). Under management by the firm *Vergueiro & Co.*, various technical and agronomical innovations in coffee cultivation were adopted in *Ibicaba*, including the plough and steampower for processing coffee cherries (Witzel de Souza and Santin Gardenal 2021, p. 15).²⁰ However, the innovation that set *Ibicaba* apart in Brazilian history was institutional. Supported by his political prominence in the Brazilian First Empire and building upon his 20-year experience in policymaking related to immigration, the now Senator Vergueiro started hiring European laborers as of the 1840s, first for his plantations *Ibicaba* (Limeira County) and *Angélica* (Rio Claro - SP County). Albeit backed by public funds, the hiring, transportation, and distribution of immigrants by *Vergueiro & Co.* was primordially a private endeavor, joined by other potentates of the province as of the 1850s (Dean 1977, pp. 95-6; Witter 1982; Heflinger Jr. 2007; Witzel de Souza 2024).

The sharecropping-*cum*-debt arrangement proposed by *Vergueiro & Co.* to these immigrants was contemporaneously known as the *Vergueiro system*. Immigrant households were hired as indentured laborers who earned a 50%-share from their net annual profits in cultivating and harvesting coffee. Part of that annual income had to be used to amortize their debts with *Vergueiro & Co.* Critics and supporters of this contract alike - both among contemporaneous policymakers and modern academics - have been unanimous in recognizing the 1846 immigration wave as an inflection point in Brazilian labor history. It was an early response to the growingly threatened transatlantic slave traffic, in which Senator Vergueiro himself had partaken. Albeit imperfect in its contractual design and promoting an immigration wave that was a minor fraction of the slaves simultaneously trafficked into the coffee zones, non-captive

¹⁸ Cf. Forjaz (1924) and the more succinct account of Luz and Gouvêa (2021) for Nicolau Pereira de Campos Vergueiro’s biography and his active partaking in critical junctures of Brazilian political history, such as the 1821 *Portuguese Cortes*, the Brazilian Constitutional Assembly, his membership in the 1831 Provisory Triumvirate that ruled Brazil after the abdication of its first Emperor, and a disputed participation in the 1842 Liberal Revolution.

¹⁹ Brigadier Souza Queiroz was married to a cousin of Vergueiro’s wife. Their descendants kept close kinship and commercial ties, including in the business of immigration (for the latter, cf. Witzel de Souza 2024, pp. 622-6).

²⁰ See implements inventoried for *Ibicaba*’s public auctions in 1889-90 (BPML #0005, DI 93-6): 100+ ploughs, classified as “mostly broken and old”; various steam-powered machines; and *Ibicaba*’s famous “Locomóvel”, *i.e.* the first portable steampower engine installed in São Paulo’s countryside in the mid-1850s by Samuel Kleiner, a Swiss immigrant originally hired as an indentured laborer (*Diário de São Paulo*, 02/08/1873, p. 2).

labor was nonetheless adopted by more than one hundred farms and plantations in the 1850s-1860s, based on the *Vergueiro system*. Moreover, that sharecropping-cum-debt contract set a framework over which new immigration policies and labor arrangements were negotiated and adapted in the following decades. To a large extent, the labor arrangements employed during the Age of Mass Migration in Brazil have historical roots that can be traced back directly to the *Vergueiro system* (Witzel de Souza 2024).

The [Ibicaba Collection](#) contains invaluable new data on this crucial juncture in the history of European immigration to the Americas. Ledger [Biblioteca Paulo Masuti Levy #0001](#)²¹ is the founding document of the experiment with non-captive labor in Brazilian plantations. That ledger contains the Current Accounts of the pioneers who inaugurated *Colônia Senador Vergueiro* in *Ibicaba*. The opening pages include references to pertinent labor legislation (Digital Images 2-3)²² and previously unpublished managerial accounts related to the hiring of immigrants in 1847-1849 (DI 6-8). In the sequence, that ledger lists the 89 household heads first hired to *Colônia Senador Vergueiro* on August 1, 1846 (DI 4-5), proceeding with their Current Accounts and of some Portuguese immigrants who remained in the plantation after earlier experiments in 1840.²³

[BPML #0005](#), in turn, documents in detail the managerial history of *Vergueiro & Co.* due to the legal case moved against that firm in the context of *Ibicaba*'s public auctioning in 1889-1890. Registered in the port city of Santos on October 26, 1846, *Vergueiro & Co.* was first founded as an "agricultural and commercial" company on August 1, 1846 - the foundation date of *Colônia Senador Vergueiro*. Founding members were Nicolau Pereira de Campos Vergueiro (owning 210 shares of 1,000.000 réis each), his sons José Vergueiro (40 shares), Nicolau Vergueiro Jr. (20 shares), and Joaquim Vergueiro (20 shares), as well as Antonio de Freitas Caldas (20 shares) ([BPML #0005](#), DI 13, 18).²⁴ The incorporation contract was signed by Senator Vergueiro, his wife, and José Vergueiro; Freitas Caldas did not sign it and quit the company; Francisco Antonio de de Queiroz signed in name of the absentee Nicolau Vergueiro Jr.; Joaquim Vergueiro, equally absent, would not have been allowed to sign the contract for being underaged. However, these younger brothers of José Vergueiro did take up their posts upon returning from their travels (*Idem*, DI 18). Senator Vergueiro was the company's director for as long as it pleased him, in which case his decisions superseded those of the firm's Council. José Vergueiro was Head Manager ("Chefe da Administração") and his two brothers were assigned to lower managerial positions (*Idem*, DI 16). *Vergueiro & Co.*'s incorporation contract was renewed in Rio de Janeiro and Santos on May 8 and September 1, 1852, respectively (*Idem*,

²¹ Henceforth referred to as "BPML", for brevity.

²² Henceforth referred to as "DI", for brevity.

²³ *Vergueiro & Co.*'s Checking Accounts are curiously numbered as pages "90-93" in that physical object ([BPML #0001](#), DI 6-7), while one laborer's Current Account starts on a page numbered "1" (*Idem*, DI 8). The latter, however, is followed by another Checking Account from *Vergueiro & Co.* ("expenditures with travel"), numbered as page "1a" in the physical object (*Idem*, DI 9). In addition, there are many repetitions in the page numberings for the laborers' Current Accounts, with some of them ordered as "a", "b", and "c". It is therefore likely that contemporaneous managers bundled various ledgers into what became [BPML #0001](#). If that hypothesis is correct, only a few pages remain from what was once the opening ledger of *Vergueiro & Co.*

²⁴ The shares of Senator Vergueiro included all goods and assets he owned in Limeira and Rio Claro (SP) Counties. The shares of José Vergueiro included the net value of his "Commercial House" in Santos.

DI 18-9, 22-3). The reorganized company included only Senator Vergueiro (234 shares) and his sons José (40) and Joaquim (26) (*Idem*, DI 18-9).²⁵ The main purpose of the company remained in fostering its agriculture businesses. However, new emphasis was given to the “colonization” business it had established in Limeira County and commenced in Rio Claro (SP) County, given that *Vergueiro & Co.* had started hiring immigrants to other planters as of 1851 ([BPML #0005](#), DI 20; Witter 1982, pp. 35-36; Heflinger Jr. 2007, p. 28; Witzel de Souza 2024, p. 621).²⁶

It has been suggested that the economic decline of *Vergueiro & Co.* can be traced back to a labor strike of Swiss immigrants, temporarily joined by some Germans, in *Ibicaba* in 1856/7 (Davatz [1858] 1941; Buarque de Holanda 1941; Heflinger Jr. 2007; 2018; 2021; Pérez Meléndez 2024).²⁷ The so-called *Sharecropper’s Rebellion* requested that immigrants’ living and working conditions be inspected by a Swiss authority. The strikers complained that their contracts had not been adequately enforced, that management and accounting were fraudulent, and that living conditions were far too poor, including lack of access to health, educational, and religious facilities. A number of domestic and international inspections followed the *Sharecropper’s Rebellion*, culminating in an intense diplomatic communication in Central Europe (Heflinger Jr. 2021, pp. 63-75). The actual effects of the strike on immigration flows are contested, but it is beyond doubt that Davatz’s book had a long-lasting impact on European views about Brazil, particularly in regards to immigration to the coffee zones (Witzel de Souza 2021; Pérez Meléndez 2024).

Unfortunately, the [Ibicaba Collection](#) has no ledger from this critical period to finally allow for an impartial auditing of the accusations of accounting fraud. These ledgers did undergo inspections by contemporaneous, *e.g.* by a first Swiss delegation in 1857 and by Perret Géntil, who took up the management of *Ibicaba*’s colony after the *Sharecropper’s Rebellion* (Davatz [1858] 1941, p. 195; Witzel de Souza 2011, pp. 49-50). Even if one cannot rule out that these ledgers have been destroyed purposefully, it is also possible that they have been removed to

²⁵ *Vergueiro & Co.*’s managerial organization described in [BPML #0005](#) reflects the close familial ties that the Vergueiros weaved around their businesses. One scandalous example was Joaquim Vergueiro’s postulation to the position of Switzerland’s consular agent in Santos, in 1851. His name was suggested by Charles Perret Géntil, the Swiss Consul who left his post for his private colonization businesses in Brazil and whose son married into the Vergueiro family ([BPML #0005](#), DI 06). Joaquim’s nomination was, however, rejected by the Council of the Helvetic Federation (Witzel de Souza 2011, pp. 6-7). On José Vergueiro, *cf.* also Davatz ([1858] 1941, pp. 93, 131, 134, 144, 200-5). As the general manager of *Ibicaba* and *Angélica* plantations, Luiz Vergueiro monitored the execution of labor contracts and adjudicated disputes (Davatz [1858] 1941, p. 86); renegotiated prices of future harvests (p. 108); commanded over the plantation’s security, including the impediment of unannounced visits, also of independent farmers interested in trading with the immigrants (p. 91); managed the charity box in benefit of poor immigrants (p. 139); and promoted suited immigrants to positions of subdirectors and schoolmasters (pp. 144-5). Luiz Vergueiro was demoted from his posts after the *Sharecroppers’ Rebellion*, when José Vergueiro attempted to distance the businesses of *Vergueiro & Co.* from Joaquim’s handling of that labor strike (Davatz [1858] 1941, pp. 75, 195).

²⁶ Both the 1846 and 1852 articles of incorporation proclaimed *Vergueiro & Co.*’s intention to found an educational facility for the children of its partners and workers. The 1852 contract even referred to a school at the secondary level ([BPML #0005](#), DI 22-3).

²⁷ The strike was led by the schoolmaster Thomas Davatz. Initially reluctant, but thereafter a firm leader, Davatz published an account of his experiences in Brazil upon returning to Europe. His 1858 book is one of the most important and most frequently cited sources on immigration to Brazil, not least for the uniqueness of an account written from a laborer’s vantage point (Buarque de Holanda 1941).

currently unknown locations for additional auditing at the time, or even stored somewhere else, in Santos or Rio de Janeiro, as *Vergueiro & Co.*'s business property.

Commander José Vergueiro succeeded his father as Head of *Vergueiro & Co.* and of *Ibicaba* after the passing away of Senator Vergueiro on March 9, 1859. Six years later, José Vergueiro requested a mortgage loan of 2,200 million réis from the Brazilian Imperial Government to bailout the firm (Marcondes 2021, p. 170). José Vergueiro defended publicly that *Vergueiro & Co.* was too big to fail for its centrality in the immigration business and for leveraging loans and liabilities to planters all around the Brazilian coffee zones (Heflinger Jr. 2007, pp. 87-92; Witzel de Souza and Santin Gardenal 2021, p. 12). To avoid bankruptcy, *Vergueiro & Co.* signed a debt composition (“concordata”) with its creditors, thus obtaining a mortgage loan of 1,600 million réis (Marcondes 2021, p. 170). Manuscript [BPML #0005](#) (DI 23-32) contains a copy of that debt consolidation process.²⁸ On September 23, 1865, the creditors of “bankrupt *Vergueiro Co.*” met under judicial orders at the Municipal Chamber of Santos to discuss the possibilities of consolidating the firm’s debt or its take over.²⁹ José Vergueiro and Luiz Rolfs were then listed as *Vergueiro & Co.*'s only partners. The debt consolidation was accepted by 52 of the 53 creditors, totalling a capital of 2,321,052.413 réis (*Idem*, DI 28-9).³⁰ *Ibicaba*,

²⁸ This manuscript has been partially transcribed in 1962/3 and published by Witter (1971). A preliminary comparison with our own transcription indicates disparities that, albeit minor, are worth further investigation, not least because [BPML #0005](#) lists four times the goods inventoried in *Ibicaba*.

²⁹ 52 out of 53 creditors of *Vergueiro & Co.* have been listed in its bankruptcy records reproduced in [BPML #0005](#) (DI 23-25): (1) Antonio Ribeiro da Silva; (2) Antonio Ferreira da Silva Jr.; (3) Antonio Correa de Oliveira Santos; (4) *Bernardo Gavião Ribeiro & Gavião*, represented by Bernardo Avelino Gavião Peixoto; (5) Custodio Alves; (6) *C. Budik Co.*, represented by its partner Carlos Budik; (7) Francisco Antonio de Souza Queiroz; (8) *Gavião Ribeiro Martins & Co.*, represented by its partner Antonio Martins dos Santos; (9) Gustavo Backhauser; (10) Hygino José Botelho de Carvalho; (11) Henrique Pereira Bastos; (12) José Azurem Costa; (13) José Antonio Pereira dos Santos; (14) José Pereira Branco; (15) Joaquim Guilherme Peixoto; (16) José Manoel Arruda; (17) João Bertrand Vives; (18) João Pereira Lima; (19) João Bernardo; (20) João Manoel Alfaia Rodrigues; (21) João Goadair, manager of the *London & Brazilian Bank*; (22) Luiz José Ferreira; (23) Manoel Lourenço da Rocha; (24) *Salles Oliveira e Sá*, represented by its partner Antonio Nicolau de Sá; (25) *Souza Queiróz & Vergueiro*, represented by its partner Nicolau Vergueiro Souza; (26) *Guimarães e Lima*, represented by its partner João Bernardino de Lima; (27) *Silva Braga Filho & Co.*, represented by its partner Bento Pereira Soares; (28) *Theodoro Whille* [SIC for Wille] & *Co.*, represented by manager Carlos Wagner; (29) *Viera Barbosa & Cochrane*, represented by its partner Antonio Vieira Barbosa; (30) Victorino José Gomes Carmel; (31) Mrs. Angelica Joaquina Vergueiro de Faro, represented by Attorney Joaquim Benedicto Braga; (32) Administration of the bankrupt assets of Antonio José Alves Braga; (33) Administration of the bankrupt assets of Antonio José Alves Souto, represented by Attorney Manoel Pinto Soares; (34) Conselheiro Albino José Barbosa de Oliveira, represented by Porfirio José de Moraes; (35) Antonio Gonçalves de Amorim, represented by Manoel Pereira da Rocha; (36) Angelica [no surname], by Attorney Romão José Florindo; (37) Barão do Tietê, represented by José Torres Rossinam; (38) José Antonio Thomaz Romeiro, as Attorney of *Banco do Brasil*; (39) Candido Justiniano da Silva; (40) Olivio Baptista de Lima, his Attorney Camillo Barrier, represented by Miguel Gonçalves Flôres; (41) *D'Yllion[...] & Marques Braga*, represented by Bernardino Martins dos Santo; (42) Fidelis Nepomuceno Prat [SIC for Prates] Jr., represented by José Ferreira de Oliveira; (43) *Drak Hleins wst & Cahrum*, represented by Ernesto Grovei; (44) José Francisco Barrozo, represented by José Antonio Figueira Jr.; (45) José Lopes de Freitas, represented by Antonio de Freitas Caldas (the latter probably being the son of *Vergueiro & Co.*'s cofounder in 1846); (46) José Sertorio, represented by Antonio José da Fonseca Leite; (47) Luiz Pereira de Campos Vergueiro, represented by José Ricardo Wrigat [SIC for Wright]; (48) *Joh Becuberg Gassler and Co.*, represented by Soats de Pastere; (49) Dona Mariana Francisca de Oliveira, represented by Attorney Joaquim Ignacio dos Santos; (50) Manoel da Silva Prado, represented by Antonio Pereira da Costa Guimarães; (51) Oliveira e Phist [Platt?], represented by Melchior Machado de Figueredo Faro; (52) *Andrade and Co.*, represented by Attorney Manoel Antonio de Sá; (53) Manoel Antonio Bittencourt, represented by Attorney Antonio Domingues Martins.

³⁰ *Gavião Ribeiro Martins & Co.* and *Salles Oliveira e Sá*, totalling 91,612.522 réis, were the losing votes.

including its slaves, was mortgaged in favor of the firm *Bernardo Gavião Ribeiro & Gavião*.³¹ The plantation's assets were considered sufficient collateral to all debts in current accounts and debts ("letras") that *Vergueiro & Co.* then took up with *Bernardo Gavião Ribeiro & Gavião* in *Banco do Brasil* (São Paulo's branch) and in the *London and Brazilian Bank Ltd.* (Rio de Janeiro). The outstanding debt with *Bernardo Gavião Ribeiro & Gavião* was to be covered in 3-5 years after the debts with all other creditors had been paid. Collateral to this second group of creditors included the expected profits from *Ibicaba*'s coffee harvests from 1865 to 1867, *Angélica plantation*, including its slaves, and *Vergueiro & Co.*'s properties in Santos, Campinas, and Rio Claro (SP) (*Idem*, DI 26-7).³² A familial and judicial thorny issue, which became central during *Ibicaba*'s public auctioning more than two decades later, was the fact that *Vergueiro & Co.*'s 1865 debt consolidation explicitly mentioned that Senator Vergueiro and his wife's heirs sanctioned that debt consolidation and obliged themselves to the payment of the ensuing debts (*Idem*, DI 26, 31).

Public knowledge of *Vergueiro & Co.*'s bankruptcy plea disrupted the stability of the labor force in *Ibicaba* and *Angélica*. Some enslaved individuals saw a window of opportunity to flee *Ibicaba* (Marcondes 2021, p. 170). The work morale among immigrants seems to have plummeted. José Vergueiro responded by intensifying the monitoring of laborers, including of non-captives, and attempted to enforce labor contracts more rigidly, allegedly to the point of despotism and of inflicting corporal punishments against some immigrants (Heflinger Jr. 2021, pp. 77-84).³³ Ledger [BPML #0002](#) will shed new light into this transnational period in Brazilian labor history. This leather-bound ledger with the engraved title "Livro Mestre V"³⁴ is among the best preserved physical objects in all collections surveyed. Albeit known to the literature (Kuntz Busch 1967; Witter 1982), the content of this ledger has not yet been systematically analyzed. Extending from 1862 to 1872, this ledger contains Current Accounts both of immigrant families involved in judicial disputes with *Vergueiro & Co.* and of some that experienced substantial upward mobility. Among the latter is Jacob Levy's household, the German sharecroppers who bought *Ibicaba* in its 1890 public auction. In addition, manuscript [BPML #0005](#) contains the entire legal process that led to those public auctions. [BPML #0005](#) catalogues and reproduces all documentation from the case moved by Angelica Joaquina Vergueiro de Faro against her brother José Vergueiro, with the goal of inventorying and

³¹ Senator Francisco Antonio de Souza Queiroz and Dr. Bernardo Avelino Gavião Peixoto were selected by majority vote as auditors of *Vergueiro & Co.*'s debt consolidation ([BPML #0005](#), DI 27, 30).

³² Funds for the debt consolidation were supplied by *Banco do Brasil*, *The London and Brazilian Bank*, *D'Yelen & Marques*, José Azurene Costa, José Antonio Pereira dos Santos, José Pereira Branco, Viera Barbosa Cochrane, and Dr. Antonio Vieira Barbosa ([BPML #0005](#), DI 29).

³³ Based on reports by Jorge Krug, Swiss Vice-Consul in Campinas County. Krug started numerous legal cases against *Vergueiro & Co.* for protecting Swiss and German sharecroppers in this period. Passionate at times, Krug's reports provide detailed accounts of working conditions after the *Sharecropper's Rebellion* (cf. Heflinger Jr. 2021, pp. 77-84). Views on the personality of José Vergueiro and his treatment of immigrants and slaves are contradictory and based on short-term visits to *Ibicaba*; a review of publications from international visitors to *Ibicaba* can be found in Witzel de Souza and Santin Gardenal (2021, pp. 14-23). For a contrasting view to that of Krug, cf. Delden Laërne (1885, p. 366) and the balanced personality portrait given by Lamberg (1899, pp. 296-8). For the obviously biased, but close perspective of Davatz on the allegedly despotic nature of the Vergueiro family, cf. Davatz ([1858] 1941, pp. 74-6, 124, 130-1, 136-7, 190-3).

³⁴ This object's original title demonstrates, beyond doubt, that other ledgers might be found in private and public archives in Limeira, Rio Claro (SP), and São Paulo; Santos (where *Vergueiro & Co.* had its headquarters); Cubatão and Xiririca Counties (José Vergueiro's last residence), and Rio de Janeiro (Senator Vergueiro's last residence).

proceeding with the legal division of Senator Vergueiro and his wife's bequests. Beyond *Vergueiro & Co.*'s 1846 and 1852 articles of incorporation and the 1865 debt composition discussed above, this manuscript further contains: inventory certificates; lists and corrections of Senator Vergueiro's descendants and heirs; copies of all legal processes and documents (dispatches, orders, petitions, power of attorney etc.) related to *Ibicaba*'s inventory; and four inventories of *Ibicaba* from 1889 to 1890 (for details, see below).

These severe financial difficulties notwithstanding, the 1865 debt consolidation and mortgages, as well as the income derived from projects of road construction and maintenance under the direction of José Vergueiro provided the financial wind for *Vergueiro & Co.* to survive until the late 1880s. In fact, well-informed visitors noticed no sign of economic downswing. Quite the contrary: *Ibicaba*'s rural management and *Vergueiro & Co.*'s marketing capabilities were internationally praised in the 1880s. The French agronomer Louis Couty did not restrain himself in his high praises of *Ibicaba*'s history and contemporaneous conditions (1883, pp. 19, 45, 164).³⁵ Circumspect and accurate in his technical observations and using data collected by himself in 1882, Couty praised the agronomical planning, agricultural techniques, and technologies adopted in *Ibicaba* (pp. 10, 31).³⁶ These included fertilizing the soil with guano and lime (pp. 19-20);³⁷ using effective construction techniques, such as refractory bricks for drying the berries and slightly elevated platforms for storage at night (pp. 44-5); and long washing processes for a less bitter product that was highly demanded in Europe (p. 43).³⁸ The management of slave labor was also praised, especially the attentive screening for specialized tasks, such as turning the cherries in the drying process, or carefully executing the prunings (pp. 31, 44-5).³⁹ Couty also defended the thesis that the labor force of immigrants was demonstrably more productive than that of slaves (pp. 143-9 ff). According to his personal assessment, the European immigrants in *Ibicaba* enjoyed a very productive and plentiful rural existence (pp. 135-7, 143-9 ff).⁴⁰ Similarly high praises came, independently, also from the Dutch attaché of Batavia's (Java) Department of Interior. Commissioned for evaluating Brazilian coffee production, C. H. van Delden Laërne visited *Ibicaba* in January 1884. He praised José Vergueiro's management in an equally positive manner: *Ibicaba*'s coffee trees were generally considered of high productivity and the berries, of high quality (1885, p. 257; 528). Vergueiro was also praised for marketing his produce directly in Hamburg and Bremen, without middlemen unconcerned with the quality of the coffee. The latter was so important as to justify the name distinction of the "Ibicaba coffee" in the marketplaces of northern Germany

³⁵ The altercation between Louis Couty and José Vergueiro in *Jornal do Comércio* (04/09/1883 p. 2) does not mirror, at all, the very positive tone of Couty's (1883) book.

³⁶ José Vergueiro seems to have been quite open to adopting technical innovations in *Ibicaba*, in spite of high risks. Just as fertilizing with guano proved rather unsatisfactory, so did the use of machinery for artificially drying the coffee cherries, which ended up abandoned (Couty 1883, p. 50; Delden Laërne 1885, p. 313).

³⁷ While guano had only minor effects on the productivity of coffee trees, lime worked better and had low production costs, as it used inputs from the province of São Paulo. The latter's chemical properties had been analyzed in Germany, as informed by *Ibicaba*'s manager, Detlef Brunne ("Brunnie" [SIC] by Couty).

³⁸ Other farms used similar systems. Compared to 24-hours washing in *Ibicaba*, coffee cherries were washed for 12 hours in *Santa Genebra plantation* and 36 hours in *Val das Palmas plantation* - all of which were considered prolonged washing periods (Couty 1883, p. 43).

³⁹ The infirmary and pharmaceutical facilities provided to the slaves were similarly praised (Couty 1883, p. 106).

⁴⁰ The *Saltinho colony* described by Couty bears no relation to the *Saltinho farm/colony* that was part of *Ibicaba*.

(p. 242). To complete the triad, the German photographer Moritz Lamberg, a keen observer, still portrayed *Ibicaba* as “exemplarily managed” as late as 1887 (Lamberg 1899, pp. 295-8).

In spite of its pioneering role in the immigration business, *Vergueiro & Co.* had much capital invested in slaves. Its chattel grew from 76 slaves in 1817-1827 to 215 in 1847, when the number of European immigrants surpassed that of enslaved Blacks for the first and only time (Pissinato and Vian 2021, p. 37). In 1865, however, *Ibicaba*’s 276 slaves amounted to a capital of 405 million réis, little less than the 445 million réis invested in its 1.25 million coffee trees (Marcondes 2021, p. 169). In 1875, *Vergueiro & Co.* owned, by far, the largest chattel in Limeira County: 419 enslaved people were registered as its property, compared to 151 from the County’s second chattel (*Idem*, p. 168). The Abolition of slavery on May 13, 1888, was, therefore, an irreversible blow to *Vergueiro & Co.*

As of 1888, two dramatic legal cases were moved against *Vergueiro & Co.* and José Vergueiro by the firm *Souza Queiroz & Vergueiro* (Heflinger Jr. 2021); and by Angelica Joaquina Vergueiro de Faro, who demanded the inventorying of her parents’ bequests ([BPML #0005](#)). José Vergueiro attempted in vain to renegotiate more than 800 million réis in debt accumulated by his firm, mortgaging *Ibicaba*’s future harvests. After even being sentenced to jail for selling parcels of the mortgaged coffee - a sentence never carried out (Heflinger Jr. 2021, pp. 86-91) -, *Ibicaba* was seized and publicly auctioned in 1889-1890. On February 21, 1889, José Vergueiro, undersigned “Partner and Manager of the *Vergueiro Company*”, and his wife gave up their rights over all goods being inventoried in *Ibicaba*.⁴¹ José Vergueiro passed away on December 31, 1893, in a location called Saudade, in Xiririca District. In 1901, *Souza Queiroz & Vergueiro* finally acquired the *Cubatão de Mogy* and *Pilar* farms, which belonged to the deceased Commander and had been encamped by *São Paulo Railway Co.* (Heflinger Jr. 2021, p. 91). Ledger [BPML #0004](#) covers the final days of the Vergueiros in *Ibicaba*.⁴² It contains demographic data from non-captive workers from 1888 to 1890.⁴³ In spite of the legal and familial chaos reigning over the last days of the Vergueiros in *Ibicaba*, registries remained impeccable in clarity, calligraphy, and accounting order, suggesting no sign of managerial disruptions. Interestingly, the 1889 accounts contain unfilled columns to record the coffee production of the residing laborers from 1889 to 1896, most likely the time horizons for the harvests lastly mortgaged by José Vergueiro.

⁴¹ José Vergueiro and his wife thus explicitly gave up: (1) Their hereditary rights over the bequests from Senator Vergueiro and his wife; (2) Allotments acquired by cession (“quinhões” adquiridos por “cessão”) from the following siblings of José Vergueiro: Nicolau Pereira de Campos Vergueiro (Viscount of Vergueiro), Joaquim Pereira de Campos Vergueiro (deceased in Dresden), and Antonia Vergueiro, married to the Baron Souza Queiróz; and (3) Allotments (“quinhões”) bought from the heirs of José Vergueiro’s brother Luiz Pereira de Campos Vergueiro and his wife, Balbina da Silva Vergueiro ([BPML #0005](#), DI 72-3).

⁴² The ledger further includes detailed accountings for *Saltinho* in 1909-1911, *i.e.* already during the Levys’s era.

⁴³ [BPML #0002](#) is a calendar for the historical year 1888, the year of the Brazilian Abolition. Given the dates registered in ledger [BPML #0004](#) and its typographical seal, we venture to say that the 1888 calendar was sent to the Vergueiros as a promotional item, together with the ledger. Digitally reunited, the physical items [Extras Docs #0002](#) and [BPML #0004](#) belong to the collections of *Ibicaba farm* and of Paulo Masuti Levy Library, respectively.

II.III. The Levy era (1890-1977)

Jacob Levy (born in 1806; unknown date and place of death) immigrated to Brazil in 1857 with five sons and his second wife, Babette Levy (*née* Heymann, born in 1809), who passed away in *Ibicaba*.⁴⁴ They were among the third wave of indentured sharecroppers hired by *Vergueiro & Co.* to work in *Ibicaba*.⁴⁵ The family started as agricultural laborers in *Ibicaba's Colônia Grande* and later ascended to the management of that colony's storehouse. According to genealogical records, Jacob Levy's family worked in *Ibicaba* until 1871, when they left with a net balance of 982\$133 *mil-réis* (Freitas Levy [1993] 2023, p. 469).

Ledger [BPML #0002](#) sheds new light onto the history of the Levy family in this crucial moment for their biographies and for *Ibicaba's*, permitting us to trace in detail an extraordinary case of upward mobility. Data for Jacob Levy's household span from March 5, 1863, to November 14, 1871. The accounts of Mathias Levy's household, the oldest of Jacob's sons to immigrate with him to Brazil, span from July 1, 1868 - *ca.* 18 months after his marriage to Catharina Levy, *née* Düpre (Masuti Levy 2023, p. 97) - to September 21, 1871.⁴⁶

As late as 1864, the Levys had an accumulated debt of 134.442 milréis with *Vergueiro & Co.*, the outcome of a catastrophic economic performance in 1863, when the family accumulated 221.547 milréis in debt and had an annual income of only 8.960 milréis. The actual reasons for the Levy's dismal situation in 1863 are unknown, but historical accounts of the time, including Davatz's ([1858] 1941), suggest the great burden of having a family member falling ill in the Brazilian countryside. This hypothesis seems to be in line with the evolution of their accounts in 1864 and 1865. The position started reverting in 1864, when their earnings reached 178.230 milréis, and in 1865, when their previously high disbursements, including in 1864, were cut short. The family's net balance turned positive for the first time in 1865 and then grew steadily from 463.680 milréis in 1866 to 2,332.737 milréis in 1871.

As sharecroppers, Jacob's and Matthias's main source of income was from coffee harvesting. Between 1864 and 1871, Jacob Levy's household harvested an average of 508.16 *alqueires* per year, which earned them 301.494 milréis per year, on average. Volatility, however, was a serious problem. Not only prices varied greatly, but also the natural productivity of coffee trees alternated cycles of high and low yields that, at times, could be as extreme as 100%. In fact, the

⁴⁴ Jacob Levy also signed his accounts as "Jakob Levÿ" ([BPML #0002](#)).

⁴⁵ As the surname suggests, the Levy family was of Jewish origins. Already converted to Lutheranism before their departure from Bollendorf, in modern Rhineland-Palatine, the family converted to Catholicism by influence of Angélica de Campos Vergueiro, Senator Vergueiro's wife. All four children from Jacob Levy's second marriage who immigrated with him - Angela, Isaak, Moses, and Salomon - were rebaptized with more Christian-atuned names: Maria, Simão, José, and Antonio (Freitas Levy 1993 [2023], p. 469; Masuti Levy 2023, pp. 93-8). [Extra Docs #0006](#) (DI 76) provides a brief genealogical account of José Levy, probably written by himself, mentioning the name "Moses". According to a member of the family's third generation in Brazil, the immigrants did not preserve any cultural practices (material or immaterial) traceable to Judaism (Freitas Levy 1993 [2023], p. 469). Rather, José Levy became one of the most distinguished and charitable providers to the Catholic communities in Limeira and Cordeiro Counties (Tamiazo 2021, pp. 103-6; see also [Extra Docs #0006](#), DI 76; Annexes to [Ledger #0089](#), DI 166-169). Connections to the Catholic Church were so prominent that [Ledger #0054](#) (DI 7-8) contains a copy of the bishopric foundation of the *Cascalho Parish*, dismembered from the Parish of Cordeiro in 1914.

⁴⁶ An exhaustive analysis of these accounts is in Online Appendix II, which also compares the Levys' production to other colonists in 1870, based on data published by José Vergueiro in [Correio Paulistano](#) (10/11/1870, pp. 1-2).

recorded physical harvests of Jacob Levy's household varied from a minimum of 166 (1864) to a maximum of 864.25 *alqueires* (1866). While the latter corresponds to their maximum earnings from harvesting (489.875 milréis), the former did not even match their minimum earnings of 55.100 milréis, which resulted, instead, from the abysmal average price of 0.200 milréis per *alqueire* earned by the family in 1867. Between 1868 and 1871, the smaller household of Matthias Levy harvested, on average, 328 *alqueires* annually, which earned them an annual average of 115.709 milréis. In their worst year, his household harvested only 135.75 *alqueires*; but that terrible 1869 harvest was immediately followed by their best in 1870 (595.750 *alqueires*). Differently from his father's history, Mathias Levy did not experience oscillations in prices earned, which remained constant at 0.600 milréis per *alqueire* harvested.

Other sources of income included tasks per piece rate, such as hoeing coffee groves (totalling 23.190 and 13.500 milréis in 1864 and 1865, respectively) and working on the maintenance of the road to Rio Claro (SP).⁴⁷ In addition, the net positive balances of Jacob Levy started to earn him interest as of 1866, reverting the burden that interest on debt had previously represented to his household. Except for 1867, from 1866 to 1871, Jacob Levy's household earned 41.593, 91.400, 56.768, 95.507, 144.592, and 217.788 milréis of interest on their positive balances with *Vergueiro & Co.*⁴⁸ That last year was of a poor harvest and the family hedged against it with the interest earned on their positive balances.⁴⁹ In 1870, Jacob Levy was also credited 140.000 and 42.270 milréis from the accounts of two other sharecroppers, J. B. Laby and José d. Silva, suggesting either the execution of piecerates by the Levys to these colonists or to unspecified debts between them.

Jacob Levy's cash withdraws do not show any trend over time, except for a decrease in the number of installments.⁵⁰ Other minor expenditures of his household included the buying of coffee from the plantation (averaging 4.350 milréis per year in 1865-1871), house rents in 1865 and 1866 (6.000 and 6.500 milréis, respectively),⁵¹ and partaking in an unspecified subscription in 1871 (15.000 milréis), to which Mathias Levy also contributed, independently (4.000 milréis).⁵² With a net balance of 2,332.737 milréis in 1871, Jacob Levy had exhausted his possibilities of socioeconomic ascension as sharecropper. Most likely in preparation for moving out of *Ibicaba*, between May and November 1871, Jacob received three payment

⁴⁷ Earning 1.280 milréis, which probably corresponds to one workday of one single person.

⁴⁸ As a fraction of earnings from harvesting, interest on balance increased from 8.5% in 1866 to an average of 25.8% in 1868-70, and reached as much as 75% in 1871. Annual figures and shares with respect to harvest earnings are approximations to the calendar year.

⁴⁹ Given the late formation of his independent household, Mathias Levy derived much less income from interest: 12.430, in 1868, and 4.300 milréis, in 1869.

⁵⁰ 72.000 milréis were withdrawn in 1864 (11 installments, most of 5.000 milréis); in 1865, 34.000 milréis (5 installments); in 1866, 60.000 milréis (two installments); and in 1867, 100.440 milréis at once.

⁵¹ No housing rents were registered in subsequent years.

⁵² Mathias Levy withdrew cash only in 1868 (90.170 milréis) and had an average expenditure of 5.200 milréis with coffee bought from *Ibicaba* in 1870-1871. All other expenditures from his household in 1869-1871 were on a credit system established with *Candido Valle*, in Rio Claro (SP) County. In 1873, the firm *Candido Valle & Irmão* owned a fabrics' shop ("Loja de fazendas"); an iron works shop ("Loja de ferragens", named *Loja do Sol*); an import, export, and factor house ("Casas de importação, exportação e comissões"); a salt's warehouse ("Depósitos de sal"); and a shoes' warehouse ("Depósitos de calçado") (Molina and Lisboa ([1873] 1981), pp. 23-4, 31-2, 34).

orders from the port city of Santos, the last in name of (?)W. Schmid.⁵³ The first amounted to 1,500.000 milréis, while the other two summed 982.133 milréis, which corresponds to the credit with which the family left *Ibicaba* (Freitas Levy [1993] 2023, p. 469).

Typical of the socioeconomic ascension of German-speaking immigrants in the region, Jacob Levy and two of his sons, Simão (1847-1914) and José (1849-1935), settled down in the urban area of Limeira County.⁵⁴ The three of them opened a storehouse with butchery - a trade that Jacob had already practiced in Bollendorf - and saddlery, with José as muleteer (Freitas Levy [1993] 2023, p. 469; Masuti Levy 2023, p. 97). Much atypical in the institutional milieu of the Brazilian Empire, however, was the fact that the brothers founded a local banking house with the capital raised in their commercial business. The financial house grew in the credit-based economy of that booming coffee zone, where credit institutions were as needed as rare (Freitas Levy [1993] 2023, pp. 469-70). It was this combination of commercial and financial capital that allowed the Levy Brothers to take part in the historical auction of *Ibicaba*.

As discussed, the auctioning of *Ibicaba* was the final step in a long legal case moved by members of the Vergueiro family against José Vergueiro, demanding the inventorying of Senator Vergueiro's and his wife's bequests. According to manuscript [BPML #0005](#), *Ibicaba* was inventoried in four consecutive days, as of April 1, 1889.⁵⁵ Summing up all its assets, facilities, appliances, furnitures, worktools, construction works, lands, and coffee trees, *Ibicaba* was appraised at 476,315.000 réis (DI 108).⁵⁶ The executor and representative of the litigating Vergueiros, Francisco das Chagas Pinto e Salles, proposed that *Ibicaba* be publicly auctioned: although its monetary valuation was below the plantation's fame, he argued, most coffee trees and assets were old or depreciated. Further, the auctioning was considered advisable given the impossibility of adequately dividing *Ibicaba's* lands and the possibility of attracting capital from other Brazilian regions where coffee production was in decline. That suggestion was accepted by the involved heirs and the competent judge on October 21, 1889 (DI 108-11). However, no bid was placed in the twenty three days of the first public auctioning. Consequently, the minimum bid was reduced by 20%, to 381,052.000 réis, on November 26, 1889, as determined by law (DI 111-2, 116). The second auction was announced for December 17-19, 1889 (DI 112). Once again, no bid was publicly placed in these sessions or in the legal bidding period of twenty days (DI 117). Given the urgency to close the case, Pinto e Salles brought to the competent judge the bid of 300,000.000 réis placed by Colonel Flaminio Ferreira de Camargo and José Levy for the plantation, sold altogether (DI 117). That bid was accepted by the judge and a third public session was scheduled for January 20, 1890 (DI 125). The furniture, appliances, and livestock were then appraised separately from the land and buildings. The consortium of Colonel Camargo and the Levy Brothers placed 5.000 réis over

⁵³ We have not been able to confirm whether this was the same person that *Vergueiro & Co.* commissioned to hire immigrants from Hamburg (Davatz [1858] 1941, pp. 233-7; Heflinger Jr. 2021, p. 59).

⁵⁴ Their siblings settled down in Pirassununga (Antônio and Mathias Levy) and Campinas (Maria Levy) (Freitas Levy [1993] 2023, p. 469).

⁵⁵ [BPML #0005](#) is a transcription from "Autos crimes No. 2055", copied in the city of São Paulo on July 10, 1901, by registrar Fran^{co}. Gonçalves da S^o Filho, in accordance with the "President's" dispatch. "President" might refer here to the governor of the State of São Paulo or of the Municipal Chambers of São Paulo or Limeira.

⁵⁶ Including *Tetéia* and *Saltinho*, which were evaluated as separate farms added to the assets of *Ibicaba*.

the initial bidding and since no further bids were placed, in spite of the judge's orders to open the biddings a second time, their proposal was victorious at last (DI 131-43). *Ibicaba's* landed and constructed assets were thus sold for 292,906.098 réis, to which were added 7,098.829 réis for furniture, appliances, and livestock (DI 142, 148).

From the winning bid of 300,005.000 réis, 50,000.000 réis were immediately paid to *Caixa Popular Limeirense*, a local bank with a pending mortgage over *Ibicaba* in name of José Vergueiro and his wife ([BPML #0005](#), DI 148-9, 151). The remaining 250,005.000 réis were paid to the Vergueiros' executor (DI 148-9). The final judicial sentence recognizing the proprietorship rights of Colonel Camargo and Levy Brothers was promulgated on March 6, 1890 (DI 153). These figures show the breathtaking socioeconomic ascension of the Levy Brothers in the two decades after their departure from *Ibicaba* as sharecroppers. Ignoring inflation, their winning bid for *Ibicaba* was equivalent to the hoeing of more than 15 million coffee groves, in prices they had earned in 1865;⁵⁷ at the ongoing remuneration of 0.600 milréis per *alqueire* harvested in 1868-1871 and considering their average harvests in that period, Jacob Levy's household would have had to work for 949 years as sharecroppers to place that bid.⁵⁸ The capital accumulated with commercial and financial businesses is therefore at the root of their socioeconomic ascension. This observation is in line with Warren Dean's (1977) and André Lanza's (2021) conclusions that the upward mobility of German-speakers to positions of appreciable landownership in São Paulo's Old West largely depended on the accumulation of capital in urban centers, commercial activities, or marriage into local elites.

Ibicaba's final register states that Colonel Camargo and the Levy Brothers contributed equally to the winning bid ([BPML #0005](#), DI 148). On July 22, 1896, Simão and José Levy purchased the shares of Colonel Camargo for 1,000,000.000 réis, thus becoming *Ibicaba's* sole proprietors (Tamiazo 2021, p. 100).⁵⁹

The economic foundations of Simão and José Levy's family branches were on solid grounds. In 1894, Jacob Levy Neto (1876-1906), José's eldest son, founded a coffee export firm in Santos. That Factor House was from then on managed by a first generation of Brazilian-borns who kept close academic and professional ties to Germany and England (Masuti Levy 2023, pp. 155, 251). After the passing away of Jacob Levy Neto, his brother Huberto Levy (1887-1955) took up the firm's management. In 1918, it was innovatively transformed into an S.A. corporation and from then on headed by Flaminio Levy (1889-1976), José's third son, for almost 45 years (Freitas Levy [1993] 2023, pp. 470-2). *S.A. Levy* grew to become one of Brazil's major coffee factors and exporters (Pereira da Silva 2023, pp. 323, 331, 335).⁶⁰ The

⁵⁷ 20 réis (= 0.020 milréis) per coffee grove hoed in 1865.

⁵⁸ $(300,005.000 / (0.600 * \text{Avg_harvest_Levy}))$.

⁵⁹ Values confirmed by the newspaper *O Estado de São Paulo* 07/22/1896, p. 3.

⁶⁰ *Pari passu* to their intergenerational upward mobility was the family's increasing leadership in political, social, and cultural milieus. José and Mr. Simão were both prominent figures in the local cell of *Partido Republicano Paulista*, São Paulo State's leading political party during the Brazilian First Republic (1889-1930) Their children and grandchildren reached a number of leading political, social, and cultural positions in Cordeirópolis, Limeira, and Santos (Freitas Levy [1993] 2023, p. 485; Levy [1994] 2023; Freitas Levy Farto [1994] 2023, p. 502; Masuti Levy 2023, pp. 155, 167, 181, 251, 379).

capital accumulated with coffee production, factoring, and exports allowed for prodigious economic progress. The family subsequently founded the *Companhia Aliança de Armazéns Gerais* (1923), for stocking and international trade; *Companhia Aliança Imobiliária* (1944), a real estate company; and *Aliança Importadora* (1944), for imports (Freitas Levy [1993] 2023, pp. 470-2).⁶¹ As discussed below, the [Ibicaba Collection](#) preserves managerial ledgers that speak directly to José Levy, as a private person, and to *S.A. Levy*.

Fourteen years after the passing away of Simão Levy, his descendants and José Levy proceeded with the friendly division of common properties in 1928, while keeping the joint management of their commercial firms. Beyond other real estates that do not concern this paper, Simão Levy received the proprietorship of *Itapema* farm,⁶² while the majority of other farmlands in Limeira County were assigned to José Levy (Freitas Levy [1993] 2023, p. 470). These included *Ibicaba*, whose proprietorship was granted to José Levy and his direct descendants (Tamiazo 2021, p. 102). In 1933, José Levy proceeded with the *inter vivos* donation of *Ibicaba* to his heirs. *Ibicaba*'s 2,664.42 hectares⁶³ and 600 thousand coffee trees neighbored *Santa Gertrudes* plantation, the urban center of Cordeiro District, the rural settlement of Cascalho, and farms *Perobas*, *Itaporanga*,⁶⁴ *São Francisco*, *Quilombo*, and *Iracema* (Tamiazo 2021, p. 103).⁶⁵

With the passing away of José Levy on July 3, 1935, his sons Huberto and Flaminio became *Ibicaba*'s head managers (Freitas Levy [1993] 2023, p. 472; Levy [1994] 2023, p. 496). In 1944, the heirs of José Levy proceeded with the friendly division of their own parts. Huberto Levy received $\frac{3}{8}$ of *Ibicaba*'s lands; Flaminio, Antonieta, and Antônio, $\frac{1}{4}$ each; and Ary Pereira, $\frac{1}{8}$. Compared to 1933, *Ibicaba*'s acreage was 237.16 hectares smaller;⁶⁶ while coffee production remained somewhat important (100,000 coffee trees), its economic structure was changing rapidly, with 25 thousand orange trees newly planted (Tamiazo 2021, p. 106; Pissinato and Vian 2021, pp. 47-50). Flaminio Levy rose to the headship of *Ibicaba*, while his brothers Huberto and Antônio took over *Bombocado* and *São Francisco* farms, founded on lands originally belonging to *Ibicaba* or immediately adjacent to it (Freitas Levy Farto [1994] 2023, pp. 479, 501; Levy Fleury [1997] 2023, p. 507; Tamiazo 2021, pp. 102-3).

II.I.III. The Hayden Carvalhaes era (since 1977)

Flaminio Levy and his son Cassio de Freitas Levy had to deal increasingly with further partitions of *Ibicaba*'s acreage by inheritance and incorporation into the urban expansion zones

⁶¹ An exhaustive study of Levy's family businesses goes beyond the scope of this paper. The interested reader is referred to Levy Machado de Barros (2002) and Masutti Levy (2023 org.)

⁶² On the succession of *Itapema*'s management by Simão Levy's son, José Levy Sobrinho, and grandson, Manoel Simão Levy, cf. Freitas Levy ([1993] 2023, pp. 474, 482).

⁶³ Converted from 1.101 *alqueires paulistas* (1 *alqueire paulista* = 2.42 hectares).

⁶⁴ It is worth noticing that *Itaporanga* farm was sold by José Vergueiro in 1874 to ameliorate the financial circumstances of *Vergueiro & Co.* (Heflinger Jr. 2021, p. 85).

⁶⁵ The bishopric decree establishing *Cascalho Parish* ([Ledger #0054](#), DI 7-8) lists the following properties as its parochial limits in 1914: *Bosque* (Dr. Fortunato dos Santos Moreira), *Jardim* (Olegario de Abreu Ferraz), *Perobas* (João Ferreira dos Santos), *Remanso* (João Mathiesen), and *Santa Theresa* (Dr. Portella) farms; "Núcleo *Fazenda Velha*", i.e. rural settlement "with many proprietors"; Araras District; and *Cordeiro* farm, from the "stream" of the squatter ("poço" [SIC]) in straight line until the farm of Dr. Rolim". Free translation from the Portuguese.

⁶⁶ Converted from 98 *alqueires paulistas* (1 *alqueire paulista* = 2.42 hectares).

of neighboring towns, especially of Cordeiro County (Tamiazo 2021, pp. 108-9). In 1976, *Ibicaba*'s historical farmhouse and surrounding lands were sold to José Theodoro Hayden Carvalhaes, who belonged to a traditional family of coffee factors from Santos (Freitas Levy [1993] 2023, pp. 473-5; Hayden Carvalhaes 2021, p. 330). José Theodoro Hayden Carvalhaes and Renato Levy, in particular, developed a personal friendship in their joint travels to trade coffee from the agricultural frontiers of Southern Brazil as of the mid-1950s (Hayden Carvalhaes 2021, pp. 329-34).

Ibicaba is currently a sugarcane and cattle raising farm. Beyond agricultural production, the sons of José Theodoro Hayden Carvalhaes have innovatively invested into the business of historical tourism since the 1990s (Hayden Carvalhaes 2021, p. 331; Pissinato and Vian 2021, pp. 51-2). The farm has developed the infrastructure for receiving guided tours, especially of schoolchildren ([Fazenda Ibicaba 2026](#)). Theodoro Hayden Carvalhaes, José Theodoro's son, actively participated in the academic events related to *Ibicaba*'s bicentennial, in 2017. From that event and from the Hayden Carvalhaes' cooperation emerged the concept of building up and digitizing *Ibicaba*'s historical archives. This idea was materialized via MEAP's *Ibicaba Project*, executed between 2019 and 2022. The new physical collection thus built has been incorporated as an additional asset to the historical tours (Figure 06-B).

II.II. The Collection

The [Ibicaba Collection](#) comprises 205 digital objects, amounting to *ca.* 65,000 pages.⁶⁷ 199 digital objects correspond to accounting and managerial ledgers or unique manuscripts. The other six digital objects bundle together the following physical items: four maps (genre: cartographic material); one drawing (visual work/pictorial view); an 1888 calendar (poster); two ground plans; nine notarial documents and deed registers; and 25 loose hardcovers and bookspines belonging to unidentified ledgers.

The digital collection encompasses all historical documents currently known about *Ibicaba* that do not belong to public repositories. The digital platform has put together, for the first time in more than half a century, the records belonging to the Vergueiros' and to the Levys' era that are owned and household at [Paulo Masuti Levy Library](#) and at [Ibicaba farm](#).⁶⁸

Six digital objects (2,368 pages), identified by the prefix "Paulo M. Levy's Library", belong to the private library of Paulo Masuti Levy, who kindly allowed their digitization by the *Ibicaba Project*. All objects in this collection are under ideal conservation conditions and have undergone professional restoration. Five of them refer to the Vergueiros' era.⁶⁹ As discussed, these include sources of general interest to economic and business historians, such as the opening ledger of *Colônia Senador Vergueiro* and all legal proceedings related to *Ibicaba*'s

⁶⁷ The number of pages reported in this paper corresponds to those in the digitized objects, including blank pages.

⁶⁸ An extra physical object related to the history of *Ibicaba* has been found after the completion of the *Ibicaba Project*, namely the plantation's guestbook from 1882 to 1893. That object belongs to the private collection of Fábio Furtado Pereira, who kindly allowed the project team to digitize it. The goal is to incorporate that digital object into the [Ibicaba Collection](#).

⁶⁹ Witter (1971a, 1971b, 1982) pioneered the usage of samples from these very objects.

auctioning. The sixth object in Paulo Masuti Levy's collection is *Ibicaba's* guestbook maintained by his ancestors from 1908 to 1945.

The other digital objects are surrogates from the paper-based historical objects owned by and housed in *Ibicaba farm*. Prior to digitalization, the *Ibicaba Project* undertook the material conservation of all physical objects (Section III). These objects have been thereafter stored in *Ibicaba's* historical office, located in the buildings neighboring the farmhouse (Figure 06-B). In line with MEAP's mission, the main goal of the *Ibicaba Project* was to support the farm's owners in preserving the physical objects *in situ* and digitizing their contents, as kindly allowed by José Theodoro Hayden Carvalhaes and Theodoro Hayden Carvalhaes. With few exceptions referring to the transitional period between the Vergueiros' and Levys' eras, the objects owned by *Ibicaba farm* are mostly from the Levys' managerial period. The vast majority of these historical documents refer to the management of *Ibicaba* itself; however, the collection also includes some business records of José Levy and of other farms owned by his family.

Tables 01 and 02 give an overview of the [Ibicaba Collection](#). They list the types of documents, quantity of digital objects, number of physical pages, and their time coverage, with temporal gaps listed in the tables' notes. Table 01 refers to the management of *Ibicaba* and its proprietors as natural persons (e.g. José Levy's private accounts) or firms (e.g. *Vergueiro & Co.* and *S.A. Levy*) Table 02 provides the same information for other farms owned by the Levys that have remained in *Ibicaba farm's* archives: *Iracema*, *São Francisco*, and *Ipiranga* farms (Limeira County), *Goyapá* farm (Rio Claro - SP County), and *Santa Marina* farm (Tatuí County).

Table 01 categorizes the sources according to three accounting types. "Plantation management" refers to ledgers and records primordially focused on the operational and strategic management of *Ibicaba* and its proprietors private accounts. The corresponding 102 ledgers and records (ca. 29,000 pages) contain the plantation's Current Accounts with customers and commercial partners, Cash Flows, General Journals and Daybooks, Inventories and Nominal Ledgers etc. "Labour accounting" refers primordially to the management and accounting of the plantation's labor force. The corresponding 73 ledgers and records (ca. 29,000 pages) include laborers' Current Accounts, Payrolls, Timesheets, and Demographic data of residing workers. The third heading lists the nine ledgers (ca. 3,000 pages) that contain more than one type of accounting in a single physical object. This was either due to managerial learning during the first years of management by Simão and José Levy, or the nature of the accounts, as with Coffee Harvest Registries that included both plantation managerial records and laborers' yields.

Table 01 - *Ibicaba Collection*: Summary of contents - *Ibicaba* plantation

	Time coverage	Overlap. years	Digital objects	Physical pages
Plantation management				
1. Current Account (Accounting of Customers and Commercial Partners)			18	4,912
Ibicaba farm & proprietors	1890-1943 ⁽¹⁾	Yes	13	3,902
Colonel José Levy ^(a)	1902-1938	No	3	794
Levy family / <i>S.A. Levy</i>	1949-1961	Yes	2	216
2. Cash Flows ^(b)	1898-1981 ⁽²⁾	Yes	15	4,531
3. General Journals & Daybooks	1943-1972 ⁽³⁾	Yes	26	11,970
4. Cost Accounting	1944-1978	Yes	12	2,468
5. Stamp Duties & Purchase Registries	1945-1952	Yes	6	298
6. Coffee Processing & Consignments			3	372
Ibicaba - Processing	1931-1944	No	1	132
<i>S.A. Levy</i> - Consignments	1930-1939	No	2	240
7. Sugarcane Harvests & Shipments			3	312
Sugarcane Harvest Registries	1958-1975	No	1	104
Shipments to mills	1961-1975	Yes	2	208
8. Inventories, Nominal Ledgers & Proprietorship ^(c)			14	3465 ^(d)
Inventories & Proprietorship	-	-	5	1436 ^(d)
Nominal Ledgers	1938-1943	Yes	4	1,485
Stockfarming Registries	1924-1939 ⁽⁴⁾	No	3	342
Pigsty Registries	1939-1945	No	1	100
Work Vehicle Registries	1958-1972	No	1	102
9. Facilities			5	594
Medical Cooperative	1912-1939	No	1	120
Butchery	1913-1915	No	1	204
Pottery	1930-1968	Yes	3	270
Labor accounting				
1. Checking accounts ^(e)	1862-1872			
	1889-1943	Yes	32	18,460
2. Timesheets	1890-1943 ⁽⁵⁾	Yes	14	2,152
3. Payrolls	1892-1942	Yes	7	2,488
4. Harvest Registries			10	3,060
Coffee Harvest Registries	1890-1966 ⁽⁶⁾	Yes	8	2,736
Unspecified	1973	Yes	2	324
5. Demographic Registries & Coffee Groves Assignments	1905-1943	Yes	9	2,413
6. Employment Registries	1968	No	1	185

Table 01 - *Ibicaba Collection*: Summary of contents (ctd.)

	Time coverage	Overlap . years	Digital objects	Physical pages
Ledgers w/ more than one type of accounting ^(f)				
1. Laborers' Checking Accounts + Plantation Current Accounts or Nominal Ledgers	1846-1850 1899-1912 1931-1942	-	3	1,080
2. Laborers' Checking Accounts + Daybooks	1890	-	1	604
3. Harvest Registries + Processing and Shipping Registries or Daybooks	1900-1930 1938-1965	-	3	1,000
4. Household Lists + General Journal	1877-1890 1909-1911	-	1	382
5. Crop Registries + Notes on labor arrangements	1962-1965	-	1	45

Notes on temporal gaps: (1) 1897-1898; 1917-1918; 1929-1931. (2) 1972-1974. (3) 1959. (4) 1926-1929. (5) 1895; 1900; 1904-1906; 1912; 1913; 1919-1921; 1926-1929; 1933; 1934. (6) 1922-1924.

Notes: (a) Including ledger [Extra Docs #0004](#) with only two pages written and two newspaper clippings. (b) Including one ledger with "Crop registries". (c) With information on *Goyapá* farm (*cf.* Table 02). (d) The reported number of pages exclude those of the nine physical objects from [Extra Docs #0003](#). (e) Two ledgers including laborers' Payrolls. (f) The following Digital objects do not fit in any of the previous categories: [BPML #0006](#): *Ibicaba's* Guestbook (1908-1945); [Extra Docs #0001](#): Drawing "O *Ibicaba*", by Jules Martin (1881); [Extra Docs #0002](#): Promotional calendar, by "Baruel, Pauperio & Co's." typography (1888); [Extra Docs #0005](#): Banking book, *Banca Italiana di Sconto* (1920) (blank); [Extra Docs #0010](#): Ordnance Surveys & Maps, *Ibicaba* (1977); [Extra Docs #0011](#): Loose covers, coversheets & bookspines; [Extra Docs #0012](#): Loose nominal indices; [Extra Docs #0013](#): Architectural wiring diagram of *Ibicaba's* farmhouse.

II.II.I. Plantation management

The oldest records in the group “Plantation management” are “Current Accounts (Accounting of Customers and Commercial partners)”. These 18 ledgers (4,912 pages) cover all but six years from 1890 to 1943. The corporate name and, in some cases, the address of a commercial partner or customer heads the account, which records chronologically all transactions with that customer or commercial partner. Some of these ledgers overlap in time, suggesting the maintenance of different accounts for the same commercial partner, due to distinct managerial purposes. The [Ibicaba Collection](#) also preserves five historical Current Accounts for *S.A. Levy*⁷⁰ and José Levy himself.⁷¹

The standardization of accounting practices, bureaucratization of tax collection, especially at the County level, and spread of commercial banking in the second half of the twentieth century led to the gradual extinction of plantations’ Current Accounts. As such, from 1943 to the 1970s, “General Accounting & Daybooks” and “Cost Accounting” substituted the plantation’s “Current Accounts”. Relatedly, six additional ledgers (298 pages) contain the *Ibicaba*’s “Stamp Duties & Purchase Registries” in 1945-1952. Reflecting the professionalization of tax collection at the time, these ledgers were officially stamped by the State of São Paulo’s *Treasury Office*, with the first of them ([Ledger #0129](#)) even having a 1937 decree on taxes and fees printed on its internal cover.

Given their purpose of recording all commercial and financial operations within the plantation every day, the 26 “General Journals & Daybooks” (11,970 pages) from 1943 to 1972 (with a gap only for 1959), are the most numerous accounts among those referring to plantation management. It is symptomatic of the standardization of managerial practices that these ledgers started to be bought from large editorial houses as of the 1940s (e.g. [Carteira Comercial Paulista](#) and [Tipografia Brasil](#)), in substitution to the local bookbinders that had prevailed before. The twelve ledgers (2,468 pages) on “Cost Accounting”, in turn, cover a period very close to that of the “General Journals & Daybooks”, suggesting their usage in parallel. Very well-ordered, including in the numbering of original titles, these ledgers are self-explanatory: they record, chronologically, every disbursement made for the management of the plantation on a daily basis.

The longest time coverage, in turn, is given by 15 ledgers on “Cash Flows” (4,531 pages), which cover the period 1898-1981, with a gap only for 1972-1974. Cash Flows have the most standardized format across all objects in the collection, both in terms of accounting practices and in their features as physical objects. Plantation’s daily operations, both internally and with external partners, were recorded chronologically, with clear specification of dates, operations, and ensuing credit or debit. With the passing away of José Levy in 1943, the managers of

⁷⁰ For an interesting insider on the managerial practices of *S.A. Levy* and the circulation of documents between the port city of Santos and *Ibicaba*, see Levy ([1994] 2023, p. 494).

⁷¹ We added *Joaquim Pereira & Co.*’s current account with *J. Levy & Co.* ([Extra Docs #0004](#)) to this category. Only two pages have been written in [Extra Docs #0004](#); however, that source includes two newspaper clippings from 1906 referring to ownership litigations over “S. Joaquim” and “S. José, named Cordeiro” farm.

Ibicaba started a new series of Cash Flows ([Ledger #0128](#)), which were then again sequentially numbered, with two exceptions towards the end of the series.

Beyond numerous ledgers on harvesting, the *Ibicaba Collection* contains other operational ledgers on the production of its two main cash crops, coffee and sugarcane. Two registries on “Coffee Consignments” (240 pages) were preserved for 1930-1939 (Ledgers [#0078](#) and [#0088](#)). These ledgers record the daily volume of coffee cherries consigned to *S.A. Levy* in the port city of Santos, discriminating by their quality and types, origins, destinations, and consignatories. Other three ledgers document the intermediary phases of coffee processing and dispatchments. [Ledger #0087](#) (132 pages) records the daily volume of coffee processed in *Ibicaba* and shipped to the market from 1931 to 1944. Complementary data on processing and shipments, mixed with other accounts, can be found in Ledgers [#0022](#) (1906-1911) and [#0044](#) (1911-1925).⁷² Put together, these five ledgers provide a complete panorama of a critical juncture in the global history of coffee, from 1906 to 1944. That the series starts in 1906 is symbolic, given that was the year when Brazilian coffee production reached its highest level up to that point in history. In a scenario of “overproduction” and fears of price drops in international markets, Brazilian coffee planters started pressing for State interventions in the market to guarantee them a minimum price floor in domestic currency. State interventions of that type became so recurrent (1907, 1917, and 1921) as to change producers’ mindsets and the political understanding and ideology on the relationship between market forces and State control, becoming a permanent federal policy as of 1924 (Delfim Netto 1979, Chaps. 2 and 3). With the substitution of sugarcane for coffee as the main cash crop in the region, the two ledgers ([#0165](#) and [#0168](#)) on “Sugarcane Shipments” (208 pages), from 1961 to 1975, played a similar role as the previous ones did for coffee. In sugarcane production, however, only the total amount of sugarcane harvested per day was recorded, while for coffee the volume was discriminated by working household (see next section). This reflects the profound transformations in Brazilian agricultural labor markets in the second half of the twentieth century, with daylaborers substituting the *colonos* who resided in the plantation.

Five additional ledgers refer to three organizations and facilities installed in *Ibicaba*. [Ledger #0045](#) (120 pages) is the Cash Flow of its Medical Cooperative in 1912-1939. Beyond lists of workers with taxable duties and their contributions to the cooperative, the ledger records the visits of medical doctors to residing households and the corresponding costs; the medical reasons for the visits were unfortunately not noted down. [Ledger #0046](#) (204 pages) contains the Daybook of *Ibicaba*’s butcher shop from 1913 to 1915, with the apportion of pork and beef sold to individual workers from records of slaughtered cattle. Finally, three ledgers (270 pages) record the amount of bricks and tiles produced or bought (“inflow”) and sold or given (“outflow”) by and in *Ibicaba*’s pottery from 1930 to 1968.

⁷² This ledger has a *suis generis* format. From the front cover, it chronologically registers the coffee harvests; turned around and having its back cover in front of the reader, the ledger registers the processing and shipment of coffee also chronologically, but starting at its last page. To facilitate the reading of the digital object, the project team has turned in 90 degrees those images that would be “upside-down” in the physical object as one proceeds reading from front cover to back cover.

Five digital objects (1,436 pages) contain inventories, legal proceedings, and notarial deeds on proprietorship. In addition to the notarial deeds of [Extra Docs. #0003](#) and the legal proceedings of [BPML #0005](#), three complete Inventories and General Balances were compiled for *Ibicaba* in 1938-1939 ([Ledger #0105](#)), 1940-1943 ([#0118](#)), and 1944 ([#0125](#)). Their contents and time coverage speak closely to the four “Nominal ledgers” (1,485 pages) of the collection. These list all commercial and financial operations of the plantation organized by type of capital, facilities, and stocks, with two of them ([#0109](#) and [#0122](#)) discriminating operations by crop and livestock.⁷³ In addition, three other ledgers (342 pages) record stocks and flows of livestock in *Ibicaba* in 1924-1939, including cattle, sheep, pork, and horses. An additional ledger ([#0121](#)) refers to the pigsty alone (100 pages), recording the name and location of each porcine, their progeny, sex, and date of birth from 1939 to 1945. Finally, [Ledger #0159](#) (102 pages) lists the work vehicles, including tractors, and agricultural implements between 1958 and 1972.

II.II.II. Labor accounting

The contents and time coverage of the labor registries in the [Ibicaba Collection](#) reflect the heydays of mass immigration to Brazil, its plateauing in the 1920s, and the long decline of *colonato* contracts until the mid-twentieth century. These documents will help shed new light onto basic, but still answered questions in Brazilian labor history. These include, among others, new estimates of total yields and productivity in coffee harvesting per household of different ethnolinguistic origins; changes in output per season (volatility) and over the long-run (productivity gains or losses); length, type of employment, and intrahousehold specialization in rural markets; and estimates of labor effort per type of labor arrangement.

With 32 ledgers totalling 18,460 pages, laborers’ “Checking Accounts” are the the most numerous type of object in the [Ibicaba Collection](#) as a whole. These accounts are headed by the name of an individual laborer or, most frequently, the head of a residing household. At times, labor categories were noted down (*e.g. colonos; camaradas, i.e. workers per piece rate or fixed time; empreiteiros, i.e. laborers per task; employees, artisans etc.*) Each individual account recorded all sources of credit and debt of that laborer or household, including labor remuneration for ordinary and extraordinary tasks, purchases in the plantation’s storehouse, cash withdrawals, and loans. Ledgers [BPML #0001](#) and [BPML #0002](#) contain the Current Accounts of the German pioneers of *Colônia Ibicaba* (1846-1850) and of the German, Swiss, and Portuguese indentured laborers in the post-*Sharecroppers’ Rebellion* (1862-1872), as discussed above.⁷⁴ All remaining accounts are from laborers employed by the Levys.

The seven “Payroll” ledgers (2,488 pages) mirror, temporally, the laborers’ Checking Accounts. Payrolls are nominal lists of various labor categories with the earnings perceived by each laborer or household head. Lists were separated by labor category (*colonos, camaradas, etc.*), by colony within the plantation where the task was executed, and, eventually, by task performed (pruning, cleaning groves, harvesting etc.). As of 1917, these records became very

⁷³ [Ledger #0102](#) mixes Crop Registries (DI 27 ff.) with Cash Flows. [Ledger #0167](#) contains Crop Registries that are primordially related to labor arrangements. Finally, [Ledger#0086](#) also contains Nominal Accounts (DI 30-49).

⁷⁴ We classified [BPML #0001](#) as “mixed” in Table 01 because it starts with *Vergueiro & Co.*’s Current Accounts.

standardized.⁷⁵ Laborers were still categorized by type (*colonos* and *employees & camaradas*, with the latter now recorded as one category), but data became richer and better organized in tabular formats. *Colonos'* accounts were more clearly distinguished between lean and harvest seasons. For the lean season, the accounts recorded the number of coffee trees cultivated (per type and price), earnings thereupon derived, number of days (eventually, even of hours) worked for the plantation in extra tasks, total labor income, debt accumulated in the period, and net income. For the harvest season, the accounts recorded the volume of coffee harvested and the corresponding earnings.⁷⁶ The sources of income were somewhat different for *employees and camaradas* and their accounts included occupation, number of days worked, and remuneration per time worked (including hours, in some cases).

Late Payrolls, in particular the very last one ([Ledger #0085](#), 1931-1942), have a layout and an accounting structure that make them almost identical to the 14 “Timesheets” (2,152 pages) of the collection. Timesheets recorded laborers’ occupations (frequently in non-agricultural tasks) and work shifts organized as one cell per person/day, in double sheets covering an entire month. The last columns recorded total time worked (according to occupations hired per month, day, or shift), remuneration per shift, and income thereupon derived. Various symbols were used to indicate one work shift, including single and double parallel traces (e.g. [Ledger #0002](#)), squares whose sides seemingly represent one shift in a four-shift working day (e.g. [Ledger #0014](#)),⁷⁷ circles and dots (e.g. [Ledger #0065](#)),⁷⁸ as well as numerical fractions.

The eight “Coffee Harvest Registries” (2,736 pages) are high-frequency records of coffee harvests.⁷⁹ They list the names of household heads, volume harvested per day engaged in harvesting, total output per agricultural season, and earnings thereupon derived. Discrimination by coffee quality and prices have been sporadically recorded.⁸⁰ By the end of each harvest season, the accountants computed the plantation’s total harvest (volume) and revenues, indicating also the amount and value harvested in the name of the plantation itself, *i.e.* not under any laborers’ headings. Three different accounting formats have been identified in Coffee Harvest Registries. First, from 1890 to 1921, they were structured as Current Accounts, with daily outputs recorded under a household head’s name (e.g. [Ledger #0021](#)).⁸¹ Second, ledgers [#0068](#) (1925-1928) and [#0077](#) (1929-1959) made use of Timesheets to record the volume harvested per day in the name of a household head; such ledgers identified more

⁷⁵ Compare the structure of ledgers [#0054](#), [#0063](#), and [#0085](#) to ledgers [#0011](#), [#0016](#), [#0023](#), and [#0031](#).

⁷⁶ Some few data points refer to the harvesting of cotton and sugarcane.

⁷⁷ Preliminary analyses of Timesheets revealed that while full squares do seem to represent an entire shift, the meaning of incomplete squares (written in conjunction with fractions) are less clear.

⁷⁸ Ledgers [#0024](#) and [#0026](#) contain day shifts recorded as circles, but the majority of entries are still recorded as squares. The Portuguese nomenclature for Timesheets is in fact “Livro-ponto”, which historically refer to a dot (in a ledger) or punch (in a punchcard) corresponding to a work shift.

⁷⁹ Extra documents [#0008](#) and [#0009](#) are most likely Harvest Registries (1973) of a crop unspecified in the source.

⁸⁰ Most of these ledgers specify the days of the first blossoming of the year and the harvest season’s starting date.

⁸¹ [Ledger #0005](#) was formatted as a General Journal in 1891. For the implications of that layouting for efficiency and clarity in accounting, *cf.* Witzel de Souza (2026).

clearly the colonies (also called “sections”) where harvest was taking place. Finally, ledger [#0151](#) (1953-1966) adopted very precise and specific metrics on volumes and values.⁸²

To gain an oversight of the composition of its labor force and of the people residing within its dominion, *Ibicaba*’s managers conducted population counts that we labelled “Demographic Registries & Coffee Groves Assignments”.⁸³ The [Ibicaba Collection](#) contains four ledgers (1,832 pages) with such information for the plantation as a whole from 1905 to 1943, as well as sparse data for specific colonies from loose sheets and four separate booklets (the latter totalling 396 pages).⁸⁴ “Demographic Registries & Coffee Groves Assignments” contain three types of data.⁸⁵ First and foremost, they were population counts, with demographic data on the sex, age, marital status, and nationality of every person residing in *Ibicaba*. Each individual was assigned to a single household head, even in households composed of more than one nuclear family.⁸⁶ Second, these sources specified the number of coffee groves that each household was contractually obliged to cultivate during the lean season, including their exact location within the plantation, clearly discriminated by colonies and *estacas* therein, *i.e.* by the smallest unit of rural planning that could be traced to a specific location within a colony.⁸⁷ The price for cultivating different *estacas*, the number of hoeings contracted per agricultural season, and the income thereupon derived were also recorded. Such information provided head managers with a clear overview of those areas within *Ibicaba* that required more or fewer laborers between agricultural seasons.⁸⁸ Third, the Registries also reported on housing, but did so more sparsely and with less rigor. In different ledgers, information was collected for colony of residence (for the vast majority of people, identical to place of work), number of houses occupied by the household, and some of their features, including number of rooms, doors, and windows, as well as number of front lockers and light bulbs for some few observations.

Ledger [BPML #0004](#) deserves special attention among the Registries for its degree of detail and for covering the period 1888-1890, *i.e.* the immediate pre- and post-Abolition of May 13, 1888.⁸⁹ The demographic data can be subdivided into three parts. DI 4-47 refer to the 86 free

⁸² Metrics of volume included coffee bags, weight in kilos, “weight as measured” (possibly on a scale), and total weight. Monetary values were discriminated by unitary price, discounts, and total income.

⁸³ The overwhelming majority of registries refer to *colonos*. However, some few people worked as *camaradas* and sharecroppers under various crop-sharing schemes (*meeiros* and *terceiros*, *i.e.* by half- and third-shares in [Ledgers #0083](#) and [#0099](#); and by half, in an interesting orthographical misspelling in Portuguese: “*ameiрос*” in [Extras Docs #0007](#)). [Ledger #0083](#) includes rare identifications of occupations, while [Ledger #0107](#) records very specific piece rates (*e.g.* uprooting coffee trees, hoeing orange trees, coronating orchards, and working with the tractor).

⁸⁴ [Ledger #0177](#) records the history of *Ibicaba*’s laborers in 1968, including the duration of labor relations and, in some cases, of laborers’ ancestors. Ledger [#0167](#) documents labor arrangements for coffee cultivation in 1962. For an account of the 1960s labor reforms, *cf.* Freitas Levy ([1993] 2023, pp. 472, 485) and interviews with the Pott Brothers (2021), laborers whose ancestors had arrived in *Ibicaba* in the same immigration wave as the Levys.

⁸⁵ These ledgers have been transcribed by Witzel de Souza (2026). All data are available upon request.

⁸⁶ Household heads were usually the patriarch or his oldest son, or, much less frequently, widowed matriarchs.

⁸⁷ In Brazilian plantations, “colonies” were nuclei of residence and production, frequently with their own managerial bodies that reported back to head managers. The following colonies and locations have been identified in the [Ibicaba Collection](#): *Abundancia* [SIC]; *Centro*; *Colônia Ibicaba* (or simply *Ibicaba*); “Residing near the farmhouse” (“Morando perto da Fazenda”); *Centro-Olaria*; *Colônia Grande*; *Colônia Nova*; *Gramma Larga*; *Ipiranga* (*Ypiranga*); *Lage* (*Lagem* [SIC]); *Linha*; *Mariquita*; *Morro Alto*; *Paineira*; *Pão de Ló* (*Pão de Lot*); *Pinheiro*; *Portão Isabel*; *Saltinho*; and *Teteia*.

⁸⁸ The sources do not differentiate *talhão* (parcel of land) from *estaca* (picket indicating location on the ground).

⁸⁹ This mixed ledger also contains data on agricultural and zootechnical production as of DI 86.

households who lived in *Ibicaba* in 1888. A complete list of household members is provided beneath the name of the household head, for whom an occupation and colony of residence were also noted down. Beyond usual information on sex, age, civil status, and nationality, the records contain data on skin color, religion, occupation in the plantation, an assessment of the household's behavior by the plantation's manager, as well as date of entry and exit from *Ibicaba*. DI 48-55 cover the year 1889 with more parsimonious information on age, civil status, nationality, religion, literacy (binary, when noted), and date of hiring. Finally, DI 57-84 refer to the 138 households living in *Ibicaba* in 1890;⁹⁰ beyond all demographic data that had been collected in 1888, there is now further information on house numbers and, in addition to the 1889 data, a distinction between a person's ability to read and write (binary in both cases, when noted). The 1890 entries distinguish between agricultural laborers and managerial professionals and artisan, while DI 85 contains a list of 13 single laborers (*camaradas*).

II.II.III. Other farms

By the late 1920s, a trade token was coined by the Levys to circulate in four plantations and farms of the family. Unifaced, 5cm diameter aluminum disks, with 50mm hole on top for stringing them together, circulated in *Ibicaba*, *Iracema*, *São Francisco*, and *Ypiranga* (Figure 02). These plantations and farms constituted a private market where each token was assigned the fiat value of "One *Alqueire* of Cleaned Coffee".⁹¹ The tokens constituted a unit of account for households' production during the harvest season, exchanged for the produce delivered by the laborers to overseers, and as a medium of exchange in the storehouses of these rural units, where the token could be exchanged for credit in the accounting ledgers, products in the storehouse, or withdraws of actual Brazilian currency.

During the first survey of historical objects in the *Ibicaba farm* (Section III), the die for minting the tokens was found in the same cupboard where the paper-based historical sources were stored (Figure 02). This unique numismatic object - to the best of the authors' knowledge, the only die of a Brazilian plantation ever documented - has been incorporated to the farm's museological collection. Beyond their relevance to Brazilian monetary history - where the usage of local tokens, especially by planters, was a cause of monetary, political, and diplomatic distress -, for the purposes of this paper, the tokens and their die illustrate the managerial integration of the farms and plantations managed by the descendants of Simão and José Levy. Table 02 lists the remaining 13 digital objects (3,192 pages) of the [Ibicaba Collection](#) that refer to five different farms owned by the Levys in the first three decades of the twentieth century. They belong to the archives of *Ibicaba farm* and were found intermingled with the historical documentation of *Ibicaba plantation* itself. The three farms located in Limeira County - *São Francisco*, *Ypiranga*, and *Iracema* - constituted the market of the token. These rural units either neighbored or had been adjacent parts of the land grants that originated *Ibicaba*. *Goyapá* farm, in turn, was located in the then neighboring County of Rio Claro (SP), while *Santa Marina* farm was in Tatuí County.⁹²

⁹⁰ Data for household numbers 119-121 are missing in the source.

⁹¹ Free translation for "UM / ALQUEIRE DE CAFÉ LIMPO" (upper case in the physical object). *Alqueire* is here a metric of volume, corresponding to *ca.* 40 liters.

⁹² All geographic references are to borders contemporaneous to the sources, not to the modern counties.

Figure 02 - Trade token & die: *Ibicaba, Iracema, S. Francisco, and Ypiranga*



Table 02 - *Ibicaba Collection*: Summary of contents - Other farms

	Time coverage	Digital Objects	Physical pages
Iracema farm, Limeira County			
1. Cash Flow	1925-1931	1	202
2. Current Account (Accounting of Customers and Commercial Partners)	1926-1937	1	208
3. Laborers' Checking Accounts	1926-1934	2	1012
4. Demographic Registries & Coffee Groves Assignments	1934-1937	2	188
São Francisco & Ipiranga farms, Limeira County			
1. Laborers' Checking Accounts & Current Account (Accounting of Customers and Commercial Partners)	1920-1930	1	196
2. Cash Flow	1929-1938	1	204
3. Laborers' Checking Accounts	1926-1937	1	808
4. Demographic Registries & Coffee Groves Assignments	1937	1	48
Goyapá farm, Rio Claro (SP) County			
1. Summarized Inventory & General Journal	1919-1926	1	208
Santa Marina farm, Tatuí County			
1. General Balance Sheets & General Journal	1938-1940	2	118
Unnamed farm, Limeira County			
1. Inventories of unnamed property (Huberto Levy's)	1941-1942	1 ⁽¹⁾	94

Notes: (1) Recorded in two separate booklets annexed to [Ledger #0109](#), produced as one single Digital object; the number of pages corresponds to these two Annexes only. (2) All counties refer to contemporaneous borders.

After *Ibicaba*, *Iracema* farm has the largest number of historical documents in the [Ibicaba Collection](#). *Iracema* farm was founded by Colonel Silvério Rodrigues Jordão Jr. in the 1870s as a subdivision of the old colonial land grant of *Morro Azul*, which was also at the origins of *Ibicaba*. After the passing of Colonel Jordão Jr. in 1901, his widow Gertrudes de Araújo publicly auctioned the farm in 1905, when it was acquired by the international coffee factor *Theodor Wille & Co.* José and Simão Levy bought *Iracema* in 1923 and sold it in 1937 to the Ometto family, who founded the *Iracema Sugarmill*.⁹³ The six ledgers that remain from *Iracema* farm in the [Ibicaba Collection](#) (1,610 pages) cover the Levys' managerial era only.⁹⁴ The original numberings of Ledgers [#0069](#) and [#0070](#) suggest that earlier accounts have been lost. Nonetheless, the series are relatively complete for the Levys' era, including one Cash Flow (1926-1934), one Current Account (1926-1937), two laborers' Checking Accounts (1926-1934) and two Coffee Groves Assignments (1934-1937).

The four ledgers of *São Francisco* and *Ipiranga* farms (1,256 pages) are mostly mixed between managerial and labor accountings. Albeit separate farms, various ledgers from *São Francisco* included data from *Ipiranga*, and their accountants reported back to *Ibicaba*'s head managers.⁹⁵ Geographic proximity probably explains the common accounting of these farms, as *e.g.* the joint reporting of their revenues in 1930-1931 (Ledger [#0072](#), DI 140), and a unique list of houses inhabited by their *colonos* in 1937 (Ledger [#0101](#)). The only ledger referring exclusively to *Ipiranga* farm ([#0061](#)) started in December 1920. That ledger is *Ipiranga*'s second Current Account (the first has been lost) and refers to the farm as being located in *São Francisco District*. The oldest entry (1926) referring to *São Francisco* farm, in turn, is from Ledger [#0072](#), whose title was printed in the name of *Paolillo & Pasquale*, from Limeira County.⁹⁶ José Levy bought *São Francisco* farm from Salvador Paulillo [SIC] on February 1, 1929 and the first entry in its Cash Flow under the Levys is dated March 13, 1929 (Ledger [#0072](#), DI 402);⁹⁷ the name of José Levy was penciled on the cover of Ledger [#0076](#).

[Ledger #0058](#) (208 pages) is the only historical document from *Goyapá* farm remaining in the [Ibicaba Collection](#). Beyond a summarized inventory, that ledger contains a General Journal for 1919-1926. On the back of this ledger's cover, it is informed that José Levy bought *Goyapá* farm on May 23, 1919, in the second sale promoted by the heirs of Commander José Ferraz de Sampaio, in Rio Claro (SP) County.⁹⁸ A handwritten note further informs that the farm was

⁹³ For data on the economic relations between *Ibicaba* and the sugarmills of the Ometto family, see Ledger [#0165](#) and Ledger [#0158](#)'s metadata. See also the land limits of the 1970s ordinances in [Extra Docs #0010](#). On the Ometto's Sugarmill, cf. [Gazeta de Iracemápolis 05/ 27/2023](#) and [Jornal ACIAL No. 5 - November 2017](#).

⁹⁴ Ledgers [#0069](#) (1926-1930) and [#0070](#) (1925-1931) are stamped in the name of *Levy & Irmão*; [Ledger #0098](#) (1936-1937) is stamped in the name of *H. Levy & Cia*.

⁹⁵ See revenue reports from *São Francisco* and *Ipiranga* sent to and signed in *Ibicaba*, as annexed to *São Francisco*'s and *Ipiranga*'s Ledgers [#0061](#) (DI 107-23), [#0072](#) (DI 443-8), and [#0076](#) (DI 107-34). Also, the opening pages of Ledger [#0080](#) (DI 03) document the hiring of *Iracema* farm's managers in 1930, which took place not in *Iracema*, but *Ibicaba*.

⁹⁶ In 1904, a certain *São Francisco* farm, neighboring *Ibicaba*, was owned by Joaquim Antonio Machado de Campos (Tamiazo 2021, p. 101).

⁹⁷ Ledger [#0072](#) (DI 402-4) contain *São Francisco* farm's complete inventory.

⁹⁸ José Ferraz de Sampaio was a local potentate in Rio Claro (SP) (Françoia 2009, p. 61). The amount of 218.480 milréis was paid to Elizer A. de Toledo, the heirs' lawyer. The ledger's opening statement confirms that *Goyapá* farm was bought in a public auction in Rio Claro (SP) and that that ledger then belonged to Flaminio Levy.

sold by the Levys on February 20, 1926 (DI 2). The ledger's opening page includes a summarized inventory of furniture and livestock received by its new owner, José de Souza Pinto, on March 2, 1926 (DI 3). The ledger's last entry is from April 17, 1926, and refers to a money transfer executed in Santos, corresponding to the final balance of the ledger, 322.296 milréis (DI 19). Two letters attached to this ledger - one commercial and one personal, from Flamínio Levy - confirm that that balance was credited to José Levy's account on April 16, 1926 (DI 113, 119).

Two "General Balance Sheets & General Journals" (118 pages) remain from *Santa Marina* farm for 1938-1940. This farm was located in the more distant (relative to *Ibicaba*) Tatuí County and specialized in animal breeding (Ledger #0104, DI 21). The first entries in the ledgers, from March 1938, refer to notarial fees probably related to the buying of the property by *S.A. Levy* from Widow (of?) Firmo Camargo. The 1938 report on *Santa Marina's* General Balance was submitted to a consortium formed by José Levy's heirs: Flamínio, Huberto, and, Antonio Levy, as well as Zuleika Pereira Levy Choloniewski. Interestingly, that report was signed by Edward Myszka Choloniewski, the farm's bookkeeper (Ledger #0104, DI 25-8). "Eduardo Mishka Koshka" Choloniewsky, according to the family's memoirs, was an impoverished Count who arrived in Brazil as member of the Polish diplomatic legation in São Paulo, marrying Zuleika Levy in 1937 (Freitas Levy [1993] 2023, p. 478; Freitas Levy Farto [1994] 2023, p. 501).⁹⁹

Finally, an additional rural property of Huberto Levy was found among the numerous extra documents attached to [Ledger #0109](#). Two booklets annexed to that ledger contain the 1941 and 1942 inventories (DI 251ff; 277ff) of a property bought by Huberto Levy from Sebastião Monteiro (DI 278).¹⁰⁰ The name of the property was unfortunately not written down in these documents, but its neighbors were listed as "Fazenda Ibicaba H Levy + Co", "Fazenda Seb. Monteiro", and "Sítio Domingos Colecta + Filhos" (DI 279).

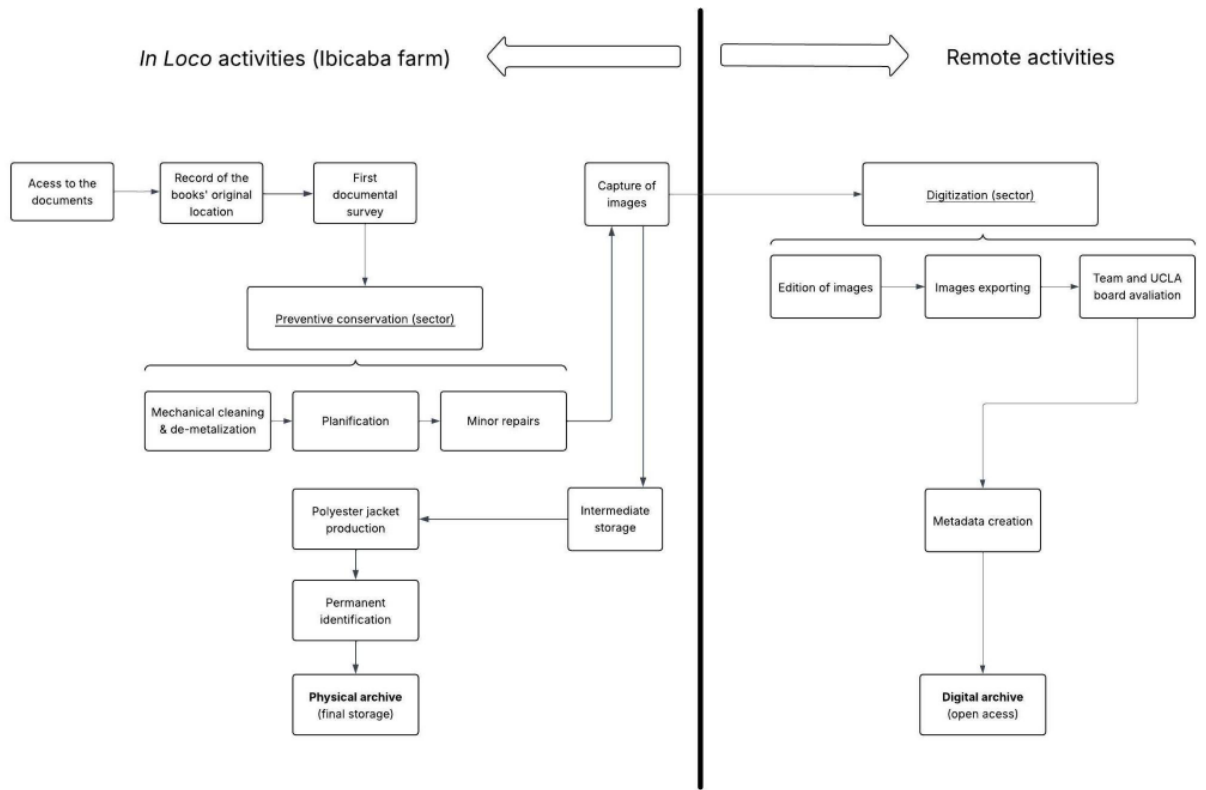
III. From data to data (I): Preserving physical collections of interest to Economic and Business History

The most important goal of the *Ibicaba Project* was to support local actors in preserving and conserving *in situ* the collection of paper-based historical objects owned by the *Ibicaba farm*. The *Ibicaba Project* combined physical and digital preservation for reaching such goal, as summarized by its fluxogram (Figure 03; cf. Carbajall and Michelle 2021). Digital preservation will be discussed in the next section. Here, we will describe some basic measures of physical conservation: (1) First documental surveying for the sorting of documents and identification of the most pressing sources of endangerment; (2) Basic preventive material conservation (I): mechanical cleaning & de-metalization; (3) Basic preventive material conservation (II): planification & minor repairs; and (4) Measures for enhanced safety of physical storage *in situ*.

⁹⁹ Cf. [Diário de Notícias \(10/30/1931\)](#), p. 10) and Levy ([1994] 2023, p. 492). Edward and Zuleika also owned the *Santo Antonio do Barreiro* farm, in Limeira County (Freitas Levy Farto [1994] 2023, p. 501).

¹⁰⁰ Sebastião Leite de Barros Monteiro was a councilor in Limeira's Municipal Chamber in 1929-1931. He was then the owner of *Santo Antônio* and *Santa Olympia* plantations ([Annals of Limeira's Municipal Chamber](#)).

Figure 03 - Ibicaba Project's flowchart for material & digital conservation



Even if the final product of the *Ibicaba Project* for most users is content preservation via digitalization, there is a rank order of safety priorities preceding the creation of digital objects that must be observed at all times. The first and most important priority is the safety of personnel. Research teams engaging with previously unsurveyed collections, whose conservation conditions are unknown, must comply with all safety procedures established by the regulatory bodies of the country where the collections are located and by those suggested by professional archivist associations. Personal Protective Equipment (PPE) must be used at all times when handling the historical collections and while in the environment where measures of preventive conservation and digitalization are taking place (Paletta, Yamashita, and Penilha 2005, pp. 72-5). For the *Ibicaba Project*, required PPEs included: (1) Handgloves appropriate for work that might encounter hazardous materials; (2) N95 particulate respirator masks; (3) Safety glasses; and (4) Surgical gown, including surgical cap.¹⁰¹ The second priority is the safety and integrity of all physical objects. Digital preservation is a supportive extension to material preservation, not a substitute for it. As such, the team must refrain at any time from conducting any intervention that might damage or worsen the condition of a physical object. It is indispensable that team members working with sources have or receive adequate training on handling historical documents, identifying causes of endangerment, and, eventually, dealing with them if technical conditions and expertise permit. Ideally, the research team should count with at least one specialist in material conservation or be closely assisted by one.¹⁰² For Brazil, the *Ibicaba Project* further recommends the reading of the following technical documents: (1) *Brazilian National Library's* guide on [Conservation](#) (Brazil 2023); (2) *Public Archive of São Paulo State's* directives on [Preventive Conservation in Archives and Libraries](#) (Cassares and Moi 2000); and (3) *Brazilian National Council of Justice's* technical manual on [Preservation and Conservation](#) (Spinelli, Brandão, and França 2011).

III.I. First Documental Survey

As for any type of accounting, rural accounting serves the multiple purposes of managing, planning, and controlling agricultural and non-agricultural tasks of a rural unit (Carneiro and Carneiro 1933, pp. 24-5). In the credit-based economy of rural Brazil, historical accounting in plantations was both extensive and complex, but varied greatly in frequency and quality according to the skills of bookkeepers (Brandão 1945, pp. 61-2; Roland de Castro 2021). As suggested by the variety in types of records and overlapping time coverages (*cf.* Table 01), the same type of information had to be recorded in different ledgers. In a centennial plantation like *Ibicaba*, these records had to be archived for managerial and legal purposes ([Brazil 1969](#)). The ordering of ledgers and the structure of business archives (operational, not historical) followed managerial principles: consulting, updating, and cross-referencing them was the daily life of managers and bookkeepers (for *Ibicaba*, *cf.* Freitas Levy 1993, p. 472; Roland de Castro 2001, p. 341). The structure of such archives changed over time according to the productive organization of the plantations (*e.g.* crops cultivated) and institutions regulating them (*e.g.*

¹⁰¹ In rural Brazilian archives, for instance, it was common practice in the past to apply agricultural pesticides over paper-based objects to eliminate biological hazards (Cunha and Matos 2015). Fortunately, the managers of *Ibicaba* have never used such technique.

¹⁰² The *Ibicaba Project* thanks the *Centro de Memória da UNICAMP (CMU)* for its institutional support. Training on basic document handling and preventive conservation was provided to us by Dr. Alessandra Barbosa, to whom the project team thanks in particular. All errors and omissions are the sole responsibility of the *Ibicaba Project*.

changes in corporate, labor, and tax laws; legal and best-practices in auditing and controlling etc.), as well as the radical junctures of changes in ownership, when such records had to be handed over to new proprietors.

The last operational consultations to *Ibicaba*'s archives were probably conducted in the late 1970s, when the farm was bought by José Theodoro Hayden Carvalhaes. It was likely at that occasion that the archive was split, with all ledgers from the Levys' era remaining in *Ibicaba farm* itself. Some managerial records from the Hayden Carvalhaes have been added to the operational archive.¹⁰³ However, the outsourcing of accounting services to professional firms have significantly diminished the importance of such records over time.¹⁰⁴ In addition, to the best of our knowledge, the last academic research conducted in *Ibicaba farm* was José Sebastião Witter's, also in the late 1970s.¹⁰⁵ Since then, Theodoro Hayden Carvalhaes has used some historical ledgers in historical tourism.

Therefore, the purposes and logic of rural accounting and its archiving differ radically from those of professional historical archivists and from the research goals of economic and business historians (Berrance de Castro and Baiocco 1969, pp. 669-70). A first step to bridge such distant purposes in a conservation project is to execute the first documental survey for gaining an overview of the collection and of its state of conservation. Such surveys must identify archival contents (types of documents, quantities, and volumes), sources of endangerment, and those physical objects that most urgently require interventions for preventive conservation.

MEAP offers two tools for conducting such surveys. The [Inventory Template](#) details data that are useful for posterior metadata creation (Section IV). The [Survey Planning Template](#) is less ingrained, but still provides an adequate overview of the historical collections. After collecting protocolar information on surveyors, dates of survey, legal authorizations etc., the latter documents collections' titles, historical periods, and general summaries of contents. Material and budgetary conditions allowing, additional information can be surveyed on collections' locations, languages, extents, copyright issues (if any), existence of physical items made of non-usual materials, list of supplies required for future material conservation and digitization, plan for future digitization, and identified physical problems with the structure of the collections, in general, and with specific objects therein.

In the *Ibicaba Project*, the first documental survey was conducted by removing all physical objects from the cupboard where they were stored in the plantation's historical office. In this, all physical objects underwent a first process of mechanical cleaning. Ledgers and books had their covers and bookspines cleaned up with a dry soft brush for removing the most salient debris (dust and insects' organic matter). Moreover, in an attempt to preserve the logic (if any) behind the organization of the collection as left by the last operating manager, the project team

¹⁰³ Due to trade secrets of an operating business, the records from the Hayden Carvalhaes' do not belong to the digitized sources.

¹⁰⁴ In personal communications with the authors of this paper, Theodoro Hayden Carvalhaes has further reported consultations to *Ibicaba*'s archive by few former rural laborers to verify their employment history for retirement.

¹⁰⁵ Witters's (1971a) paper explicitly mentions the years 1962-3; however, he must have conducted research in *Ibicaba farm* also later, given José Theodoro Hayden Carvalhaes's reminiscences of his.

divided the cupboard into six quadrants corresponding to the divisions of its shelves, annotating the location of each ledger as we first found them.

Given the extent of the collection and the complexity of themes covered by each ledger, all physical items were first ordered by the decade of their first recorded entry. Subsequently, by decade, each document was sorted as pertaining to “plantation management” or to “labor accounting” (Table 01; Figure 04). Finally, by decade and within these categories, each physical item was sorted by type of accounting and by year of first entry. By the end of each working day, all physical items were stored back into the cupboard per decade, with slips of paper clearly identifying the decades and distinguishing between sorted and unsorted items.¹⁰⁶

For each ledger or document, the following information was annotated on a bookmark put approximately in the middle of the physical object:¹⁰⁷ Quadrant in the cupboard where the object was found, estimated dates based on first and last written pages, and type of account. Because the first and last pages of accounting ledgers do not necessarily correspond to their oldest and most recent entries, and because ledgers can encompass more than one type of accounting (*cf.* Table 01), the information collected during the first documental survey had to be iteratively updated as the project progressed. Therefore, while the first survey provides a solid basis for subsequent metadata creation, a thorough content analysis should only be expected in the project’s final stage, once all digital surrogates are available.

During the first survey, the project team identified some ledgers and covers that did not in fact belong together. The corresponding covers were put aside and assigned to the correct physical item once these were identified in the surveying process. Covers and bookspines whose actual contents could not be identified with certainty were, in the end, grouped together in the digital object [Extra Docs #0011](#).¹⁰⁸ Whenever any question remained as to physical items belonging together or not, we opted to keep them as separate, independent objects.

III.II. Measures of preventive conservation: Mechanical cleaning, de-metalization, planification, minor repairs, and physical storage

Measures of preventive conservation are minimum and reversible material interventions that aim at guaranteeing the integrity and conservation of a physical object (Brazil 2023, p. 4). These measures have the intrinsic goal of conserving the physicality of the source and the instrumental aim of allowing for or enhancing the quality of its digital surrogates (Conway 2001, pp. 14-9). The following measures of preventive conservation were applied onto all paper-based historical objects in *Ibicaba farm*: mechanical cleaning, de-metalization, planification, and page stabilization via minor repairs.

¹⁰⁶ Necessary in any project, clear documentation was particularly useful for the workflow during the Covid-19 pandemic, when measures of social distancing implied that team members had to work in individual shifts.

¹⁰⁷ Special attention should be given to the size and placement of these slips to avoid losses.

¹⁰⁸ [Extra Docs #0012](#) contains all nominal indices that were originally found as loose items and could not be attributed to any ledger with certainty.

Figure 04 - First documental survey in *Ibicaba farm*, January-February 2019



Notes, from top to bottom: (1) Identification of sources of endangerment and of physical objects with highest priority for measures of preventive conservation. Depicted bookspine with debris from biological hazard (termites). (2) Example of fallen-off cover and bookspine. (3) Ordering of historical objects per decades. (4) Intermediary storage after the first week of work, with clear identification of surveyed objects

After almost six decades since the end of its daily usage as a business archive, the main sources of physical degradation identified in the paper-based historical collections of the *Ibicaba farm* were: (1) Biological hazards (insects, particularly termites, but only minor incidence of fungi); (2) Vestiges of water infiltration and humidity; and (3) Debris of various kinds, most prominently dust and insects' remains and excrements. To some physical objects, another source of endangerment was the bent position of their last storage, damaging their spines, bookbinders, and/or covers and pages by irregular pressure.

The first and most basic process of mechanical cleaning of paper-based historical objects is the removal of dirt and debris, as well as of any metallic object attached to the source, such as staples, paper clips, metal pins etc. (*cf.* Berrance de Castro 1965, pp. 372-4). Dirt and debris were removed with soft dusting brushes; whenever necessary, Staedler rubber powder was distributed over the surface of the pages and worked with a sponge to enhance the efficiency of the cleaning process (Cassares and Moi 2000, p. 29).¹⁰⁹ De-metalization, in turn, was executed with a scalpel (blade N° 15) and a spatula (N° 31) (*Idem*, p. 29). Given that a professional table for mechanical cleaning with dirt suction was not available to the *Ibicaba Project*, the mechanical cleaning was executed in an open-air environment; to the corners of a plain wooden table, the team added cardboards with their extremities folded inwards to collect the dirt for subsequent clean disposal or for gathering fragments that should not be discarded.

Since the project was executed in an operational farm, all steps in material conservation were subjected to exposure to additional debris, especially dust. To minimize this problem, cleaned objects were individually wrapped with non-woven fabrics. These individual wrappings were accommodated in bundles (ordered per decade and type) into closed polypropylene boxes, which were daily put back into the historical cupboard (Cassares and Moi 2000, p. 35).

The next phase of preventive conservation encompassed: (1) Planification of pages and covers (Figure 05-A); and (2) Minor repairs of pages and covers structurally damaged by tears and cuts (Figure 05-B). All minor repairs must be executed under the supervision of a trained team member and with completely reversible methods that allow for any future interventions.

In line with archivist best-practices and given the available budget, planification in the *Ibicaba Project* was executed mechanically, with a glass board and weights used to apply controlled pressure on paper-based historical objects. In cases of more prominent or severe bending, the paper fibers were slightly hydrated with a brush of fine bristles and deionized water (mineral-free) with neutral pH (*ca.* 6.8-7.0). The minor repairs, in turn, were executed with *Methyl Cellulose Paste*. The best results for executing minor repairs in the type of paper found in the collection (*cf.* Table Appendix I.7 for their provenance) were obtained with *Japanese Maruishi Paper* (9 grams/m²). This choice was driven by the size of repairs to be executed in the ledgers, for the transparency of the repair on the repaired pages, and because they did not cause any lever effect when flipping the physical pages ([National Diet Library](#) 2023, pp. 8-29).

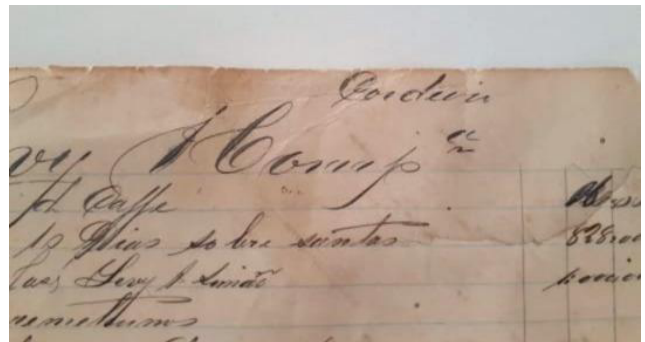
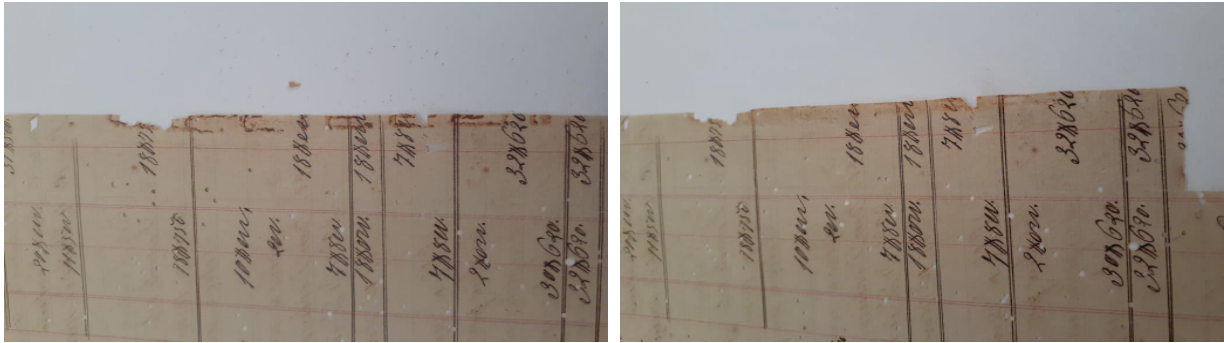
¹⁰⁹ Given the available budget and the team's expertise, the physical objects were not subjected to any type of bathing, chemical cleaning, or decontamination and sterilization with radiation (Rela *et al.* 2007, pp. 286-92).

Figure 05-A - Illustrations of basic measures of preventive conservation in the *Ibicaba Collection*: Planification



Note: [Extra Docs #0002](#) as originally found in the first documental survey and after undergoing all measures of preventive conservation, including planification.

Figure 05-B - Illustrations of basic measures of preventive conservation in the Ibicaba Collection: Minor repairs



Notes: Illustrations on planification and structural repairs with *Methyl Cellulose Paste* to guarantee the stability of the physical object for material preservation and subsequent digitalization.

After the ordered completion of mechanical cleaning, de-metalization, planification, and minor repairs, batches of up to 15 ledgers were forwarded for digital capturing in a separate location in *Ibicaba farm*.¹¹⁰ After image capturing, the workflow continued in two separate fronts (Figure 03): digital surrogates underwent image treatment and metadata production, while physical objects returned for final storage.

As discussed, the main goal of the *Ibicaba Project* was to create a physical collection that remained *in situ* as a historical asset to the farm.¹¹¹ The cupboard where the ledgers were found in the first place was considered an adequate final repository. It offered adequate conditions for storage, was placed in the old plantation's office, and could be easily integrated into the circuits of historical tours conducted in *Ibicaba farm* (Figures 06-A and 06-B).

To minimize problems with the lack of a controlled environment, some additional conservation measures were taken by the *Ibicaba Project*. The cupboard was fully sanitized and sprayed from the inside and outside with fungicide; a layer of *Expanded Polyethylene* (EPE) was added to the full length and width of each shelf to avoid direct contact of paper-based objects with the cupboard's wood; and a waterproof plastic coating was placed on top of the cupboard to protect it from water infiltration. In addition, an intermediary door of temperate glass was installed between the original cupboard's door and the physical collection within. During usual workdays in the farm, all doors are kept shut (the office's and the two cupboard's doors), thus diminishing pollution and helping with the maintenance of temperature and light incidence. During the guided tour visits to *Ibicaba farm*, the office's and the original cupboard's doors are opened, with the material still protected by the temperate glass. Finally, the wrappings with non-woven fabrics used during preliminary storage were substituted by polyester sleeves prepared individually for each ledger, book, or document. These sleeves reduce pressure and friction between bookbindings and covers, protect the objects from debris, and lower the risk of biological contamination by contact (if insects or fungi survived the mechanical cleaning).¹¹²

¹¹⁰ In the *Ibicaba Project*, mechanical cleaning, de-metalization, and planification were accomplished by two workers trained on basic conservation. Small repairs were accomplished only by the PI with more experience in preventive conservation. Such labor inputs led to an optimal workflow with batches of *ca.* 15 ledgers each.

¹¹¹ The project leads are well-aware that archiving paper-based historical objects in an operating farm is conservationally inferior to storage in professional archives. However, the experience of the *Ibicaba Project* unequivocally favored the creation of an *in situ* collection. First, for the immediate impact that its creation had on local communities by building up human capital and promoting awareness to cultural heritage preservation. Second, for the renewed interest in local history it sparked. Third, and more generally, for the economic value and incentives that such collections might have for those rural units that have preserved their private archives to date.

¹¹² The project team is also available on a voluntary basis for consultations and interventions, whenever requested.

Figure 06-A - Intermediate storage for material preservation *in situ*



Notes: (1A) & (1B) In the phase of preventive conservation, clean and de-metalized objects stored in the vertical; (2) Intermediary storage prior to digitalization; (3) Intermediary storage post-digitilization, with extra measures for material preservation, especially against water infiltration and eventual contamination between ledgers.

Figure 06-B - Final storage for material preservation *in situ*: A new physical collection incorporated as an asset to the *Ibicaba farm*



Note: To facilitate consultation, all ledgers displayed in *Ibicaba farm*'s historical cupboard were ordered chronologically (*cf.* Berrance de Castro 1965, pp. 372-4). The wooden and extra glass doors of the cupboard are kept shut during normal operational days in the farm; during tour days, the illumination system is turned on.

IV. From data to data (II): Creating digital collections of interest to Economic and Business History

In material conservation, digitalization is a crucial complement to physical preservation. Digital objects allow for content preservation, (machine-enhanced) research with the newly available sources, and accessibility to audiences with no access to the physical collections (Conway 2001, p. 12). Digitalization is simultaneously an intermediary step in creating the physical collection and a product itself (Figure 03). After the measures of preventive conservation, batches of physical objects were handed over for image capturing in a different location in *Ibicaba farm*. Data from the first documental survey allow the image capturing team to properly identify the digital surrogates. The measures of preventive conservation, in turn, are necessary for stabilizing the physical conditions of the objects to be imaged and removing any structural problem that would have hampered consultants' experience with the digital surrogates. After all contents in each batch were imaged, physical objects returned for storage (Section III). The digital surrogates, in turn, advanced toward the creation of the digital collection, as described in this section. After imaging (first step in digitalization), editing, exporting, and quality control follow (second step); once the edited images meet publication standards, metadata can be produced for the digital objects (third step); online storage and publication complete the creation of the digital collection (fourth step)¹¹³.

The same safety protocols adopted in preliminary conservation apply unmodified to image capturing. Safety of personnel is the priority, implying the necessity of wearing PPEs at all times while working with the physical objects. The safety of physical objects follows suit. The digitalization team should not take any action in the process of image capturing that might harm the physical object. Coordination between team members is thus crucial for solving pending problems with objects' physical structure and in determining whether or not a digital surrogate can be improved according to the conditions given by the physical object (Conway 2001, pp. 22-3).

IV.I. Image capturing, editing, and quality control: *Toolkits & on-the-ground practices*

The equipment and technical expertise required for capturing high definition images from physical objects will vary according to their conservation conditions, dimension of collections and objects, and projects' budgets.¹¹⁴ Based on UCLA Library's [IDEP Partner Toolkit](#),¹¹⁵ the *Ibicaba Project* built up a relatively low-cost set of equipment, adapting IDEP's requirements to the Brazilian markets of peripheral and lighting equipment, while strictly following the toolkit's suggestions on camera and lenses. The core equipment for image capturing in the project included one *Nikon D810*© camera body and one *AF-S Micro Nikkor 60mm/2.8G*©

¹¹³ [Vilanova Artigas collection](#) brings important insights on team coordination (Azevedo 2001).

¹¹⁴ [Donalis Delgado Photography](#)© provided capturing services and training on digital imaging and editing to the *Ibicaba Project*. If funding is available, the hiring of a professional photographer or designer to accompany image capturing, or to train the team, is highly advisable.

¹¹⁵ The [Toolkit](#) supports UCLA's [International Digital Ephemera Project \(IDEP\)](#). Together with MEAP's guidelines, the [Toolkit](#) offers exhaustive protocols on equipment, settings, capturing, file naming, and metadata production. MEAP's [Grantee Resources](#) provide links to other institutional guidelines of interest, as well.

lens, which amounted to 54% of the project's budget for equipment.¹¹⁶ Peripheral and lighting equipment summed up the rest. Because the [IDEP Toolkit](#)'s recommendations for the latter could not be found in Brazil at costs fitting the project's budget, they were substituted by equivalent counterparts produced in the country.¹¹⁷ A complete list of equipment used by the *Ibicaba Project*, contrasted to suggestions from the [IDEP Toolkit](#), can be found in Online Appendix III.¹¹⁸ Beyond peripheral items (tripods, cables etc.), the lighting set was composed by two softboxes for lighting large-dimension objects, which proved useful for ledgers with long wingspans, maps, and posters. The *Ibicaba Project* opted for battery-powered flashes, which might be necessary in rural environments where electricity is unavailable or unstable.¹¹⁹ Moreover, considering the instability of internet connections in rural environments in low- and middle-income countries, a fully offline capturing workflow was found best by the *Ibicaba Project*. This was executed with a tethered capture directly onto an external hard drive and the automatic importing of the captured images into an editing software.

Surveyed, cleaned, de-metalized, planified, and repaired physical objects were brought in batches of *ca.* 10-15 items into a separate room reserved for image capturing, where external light incidence was minimal. The majority of physical objects were imaged upon a standard background of black cloth clipped in its four corners to a table. The first capture was that of a randomly opened page of contents (*i.e.* not covers or annexes) with the *XRite Color Checker*® on top of it. This image was subsequently used for color corrections in the editing phase. In the sequence, the physical object was imaged with one shot per page (cover, back cover, and annexes, if any) or sheet (double pages captured at once, emulating the sensorial experience of looking at an opened ledger). For expediting image editing thereafter, it is highly recommendable that the physical object remains as aligned as possible with the corners of the table and be moved as little as possible. Moreover, after every few shots, it is important to clean up the background cloth, as remaining dirt will drop from bookspines.

The *Ibicaba Project* conducted a tethered capturing, with RAW files automatically saved onto an external hard drive and imported into *Adobe Lightroom*® for editing and exporting the digital images. Editing was deliberately limited to: (1) Automatically adjusting colors to the real ones as imaged with the *XRite Color Checker*®; and (2) Cropping the images to maintain a standardized frame across all images (Rieger *et al.* 2023, pp. 13-4, 17-9).

Digital samples with randomly selected images from different physical objects were regularly uploaded onto a cloud for quality control by MEAP's publishing team. Once individual

¹¹⁶ This percentage excludes import taxes, which amounted to 43% of the pretax value of the camera plus lens. Especially in low- and middle-income countries, it is highly recommendable that projects add a "Financial Contingencies" rubric to their budgets for dealing with macroeconomic shocks, and import fees and taxes.

¹¹⁷ The equipment produced by ATEK® had the closest specifications to that of the [IDEP Toolkit](#) and was evaluated as the most adequate for the purposes of the *Ibicaba Project*. Disclaimer: This paper does not evaluate ATEK's® products for commercial purposes and bears no relationship to that or to any other commercial firm.

¹¹⁸ MEAP now has its own [Guide on Print/Image Digitalization](#) and [Grantee Resources](#) for audio and video. These sources provide equipment alternatives according to technical needs, equipment availability, and import costs.

¹¹⁹ Such batteries require periodic recharging. The equipment used by the *Ibicaba Project* has an official battery autonomy of 400 shots at maximum potency. The average number of pages across all physical objects in the [Ibicaba Collection](#) is 319, *i.e.* equivalent to approximately 160 shots per physical object.

samples were approved, including after recaptures, each image corresponding to a physical object was exported in .TIFF and .JPEG formats. In the [Ibicaba Collection](#), all digital objects are “complex”, *i.e.* composed by more than one digital image. Preliminary file names were assigned to the digital images, which were stored for metadata production before the assignment of final file names for online publication.

IV.II. Metadata production & online storage: MEAP’s resources & products from the *Ibicaba Project*

Metadata creation is the final step in producing digital objects. Even if such skill is not required in daily research practices of economic and business historians, knowledge about the logic behind metadata creation can enhance users’ experience with archival collections (Berrance de Castro and Baiocco 1969, p. 670). It might also support non-professionals in developing more accurate information systems for collecting, digitizing, and publishing primary data. This section presents a simple and open-access information system used to create the metadata for the [Ibicaba Collection](#), in accordance with MEAP’s [Handbook](#) and [Template](#). The protocols described here are applicable to other collections containing historical accounting records. In the sequence, we will briefly revisit the contents of the [Ibicaba Collection](#) using the metadata as an additional source on authorship, time coverage, and collection’s materiality.

To produce metadata that adhere to best-practice criteria of clarity, accuracy, and consistency the following components are required: (1) Well-defined objects; (2) Consistent vocabularies; and (3) Homogenous categories to describe the digital objects.

The digital “object” is the unit of metadata production. Each digital object will have one line of metadata describing its contents and the features of its physical source.¹²⁰ One single digital object might be composed by one or more digital surrogates and map onto one or more physical objects. Digital objects are defined as “simple” if they contain one single digital file, or “complex” if they contain two or more digital files ([Handbook](#) pp. 4-5, 44-45). The first step in metadata production is, therefore, to define what constitutes the digital objects of a collection, taking into account the physical nature of source material(s); the logical, historical, and thematic organization that the project intends to imprint onto the digital collection; and practical considerations of budget and deadlines (*Idem*, pp. 26-39).¹²¹

The *Ibicaba Project* defined an “object” either as a ledger/book with all documents found within it, or as bundles of physical items that belonged together historically (*e.g.* notarial deeds and proprietorship documents bundled together in [Extra Docs #0003](#)), or by physical features (*e.g.* loose covers and bookspines in [Extra Docs #0011](#) and nominal indices in [Extra Docs](#)

¹²⁰ The [Ibicaba Collection](#) did not include digitally-born objects; all source materials were physical in origin.

¹²¹ Different levels of metadata creation are possible, depending on the archives and research goals (*e.g.* metadata can be produced for entire collections, instead of itemized objects; [Handbook](#), p. 5). Beyond disciplinary and archivist best-practices, defining digital objects will also depend on practical considerations of budget and deadlines, as there is a trade-off between execution costs and the production of evermore detailed metadata. During the First Documental Survey, the PIs of the *Ibicaba Project* considered the possibility of producing metadata for each page in the collection (*i.e.* simple objects), which would provide information on every laborer and customer ever recorded in the collection. With the technology, funding, and human resources available (and assuming no economies of scale), such an approach would have demanded 31 years for the project’s completion.

[#0012](#)). Such definition led to the production of the 205 digital objects summarized in Tables 01 and 02. Researchers working with historical managerial and accounting records will likely find physical objects that once belonged together, but that have been put apart or even torn apart by contemporaneous daily handling. Unless a definitive decision on the contrary could be reached, the *Ibicaba Project* has kept these items separately, thus defining them as distinct objects (e.g. Ledgers [#0008](#) and [#0012](#); Ledgers [#0013](#) and [#0021](#)). The goal was to interfere as least as possible with the structure of the collection as first found and to preserve the logic of the last practitioner, which might contain relevant managerial information for future research.

Controlled vocabularies, in turn, are “[a]n existing or predefined list of terms that facilitate the creation of consistent metadata” ([Handbook](#), p. 5). They establish a set of systematic and authoritative words capable of describing objects in a collection in an accurate and internally consistent manner; and guaranteeing comparability between collections that might be related historically, thematically, geographically etc. Controlled vocabularies facilitate consultation, increase the likelihood of identifying relevant overlaps in contents (within and between collections), decrease definitional errors and false positives in search engine returns, and improve digital research if some vocabularies are used as facets or links ([Handbook](#), pp. 7-8).

Controlled vocabularies can be derived from international authoritative sources, from authority lists related to specific themes and scholarship areas, or defined internally to the project.¹²² The *Ibicaba Collection* combined three listings from the U.S. *Library of Congress Controlled Vocabularies* (*Names*, *Genres*, and *Headings*) with its own set of specific words related to Brazilian labor history. The latter have been used in abstracts and notes written in the vernacular, but were mapped back onto Headings from the *Library of Congress Controlled Vocabularies* in their English translations. Therefore, a user with no prior knowledge of Brazilian labor history, by searching for the general Heading “agricultural labor”, will have the full pallet of results (in the English metadata) that another researcher with deeper knowledge on specific labor categories would by individually searching for “parceiro”, “meeiro”, “terceiro”, “colono”, “camarada” etc. (in the Portuguese metadata).

The final component for producing metadata is a set of homogenous categories to describe each digital object with the defined vocabularies. MEAP’s [Template](#) is a spreadsheet that provides a set of such categories, aligned with the *Dublin Core Metadata Standards* and adaptable to various disciplinary needs. Each column of the spreadsheet contains mandatory and optional categories to describe features of the (physical) source material(s) and of their digital surrogate(s). The information to be conveyed in each category is explained below and is further illustrated with the metadata produced for the *Ibicaba Collection*.

The [Template](#) most basic section relates to the identification of objects (digital and physical) and the features of their source materials. “Identifiers” uniquely identify each digital object via its “File name” and digital extent (“Number of files”), mapping it back onto its uniquely

¹²² For suggestions, including specific authorities by language and themes, see [Handbook](#) (pp. 8-10).

identified physical source(s) via the field “Local identifier”.¹²³ Fields in the “Item overview” section, in turn, provide detailed information on titles, authorship, time coverage,¹²⁴ places of origin,¹²⁵ and languages of the source materials.

The [Template](#) lists three different types of title. The “Title” proper refers to a title assigned by the project team to a source material in the original language, which is translated into English in a separate field (“Translated title”). Since managerial and accounting records rarely have explicit titles, the *Ibicaba Project* used a set of controlled vocabularies to assign titles that reflected the actual contents of a source. This makes the collection more consistent and lowers the costs of identifying time series within it. Some source materials, however, do contain handwritten, typewritten, printed, or engraved titles, but these do not necessarily reflect the contents of an actual object. In fact, the [Ibicaba Collection](#) contains various ledgers that were repurposed and, therefore, had meaningless original titles in regard to their contents; frequent among the latter are booklets originally intended for laborers’ current accounts that were transformed into managerial records (e.g. Ledgers #0078, #0081, #0087; #0082 and #0101). These titles - derivable from the sources, but illusive with respect to content - were recorded in the [Template](#)’s third field for titles, the “Alternative title”.

“Authors and creators” are recorded in different fields, according to their roles. MEAP offers an authoritative list of roles in its [Handbook](#) (p. 20), while the [LC - Names](#) is recommended for controlled vocabularies on authorship.¹²⁶ With rare exceptions, historical ledgers and commercial documents do not record the names of all (or any) managers and accountants that produced the source material. In these cases, the [Ibicaba Collection](#) assigned generic authorships to the objects, such as “Ibicaba farm (Year range)” or “Levy family (Year range)”, depending on the account’s main objects and subjects. Table Appendix I.1 tabulates all creators and contributors identified in the [Ibicaba Collection](#), including generic authorships. The list is obviously non-exhaustive, since all ledgers have many more contributors who could not be identified during the process of metadata production or were not even named in the sources.

The languages of source materials are recorded in the field “Language codes” ([ISO 639-2](#)). The overwhelming majority of content in the [Ibicaba Collection](#) was written in Portuguese. All objects in other languages are listed in Table Appendix I.2. In line with the intellectual milieu of the time, Brazilian immigration history, and the origins of the Levy family, these sparse notes were written in French, Italian, and German. The lack of more material in German is noteworthy, given the commercial and educational ties of the Vergueiros and the Levys to German-speaking countries, as well the origins of the latter.¹²⁷

¹²³ For final storage of the physical collection, project ledgers must be attentive in clearly identifying the physical objects *in situ* according to the metadata.

¹²⁴ Time coverage listed as (1) Computer-readable single date (YYYY-MM-DD) or Date range (YYYY-MM-DD/YYYY-MM-DD); and (2) Humanly meaningful “Date Created (human readable)”, which allows for further details, e.g. references to imprecise dates.

¹²⁵ Including pairs of “City (Country)” since the 2024 reformulation of the [Template](#).

¹²⁶ The 2018 [Template](#) included one field for “Authors” and another for “Contributors”. Elaborated in 2024, the current [Template](#) dropped the category “Contributors”, while adding fields for different authorship roles.

¹²⁷ One of his grandsons observed that José Levy spoke German only to those who could not understand Portuguese. Attributed to him is the saying: “House built up, tamed donkey”, alluding to José Levy’s intent of

The sections “Physical description”, “Find this item”, and “Access conditions” describe the materiality and location of physical objects, as well as copyrights over physical and/or digital objects. The first unfolds into the fields “Extent” and “Dimensions” (height per length, in cm) of the physical object. In the [Ibicaba Collection](#), the extent of ledgers was measured in number of pages, excluding annexes, while bundles of documents were measured by number of folios. “Institution/Repository” documents the organization or personal archive where the collection is housed, which generally overlaps with ownership or stewardship.¹²⁸ Finally, “Copyright status” has the drop-down options of “copyrighted”, “public domain”, and “unknown”; as well as three additional statuses for publication-related items: “published”, “unpublished”, and “unknown”. As most business archives, the [Ibicaba Collection](#) is composed mostly of unique documents that can be considered in “public domain” and “unpublished”, as long as the owners of the collections authorize their publication.

Sections “Keywords” and “Description and notes” describe in detail the contents of a digital object. Together with “Title” and “Authors”, controlled vocabularies should be used here in a systematic way to guarantee internal consistency and comparability to other collections.

Keywords are assigned to object’s types, genres, time and geographic coverage, and themes.¹²⁹ First, all digital objects must be classified as “text”, “still image”, or “cartographic” in the field “Resource type”.¹³⁰ These are then refined by “Genres”, which may follow a [list](#) elaborated by MEAP from published collections, including *Ibicaba*’s. The *Ibicaba Project*, however, based its genres on [LC - Genre/Form Terms](#) and [LC - Subject Headings \(LCSH\)](#). Second, “Subject.Temporal” assigns a time-, epoch-, or historic-related periodization to the object. The *Ibicaba Project* derived its “Subject.Temporal” from [LCSH](#)’s periodizations of Brazilian history, which is based on the country’s political history.¹³¹ Third, “Subject.Topic” lists the “topics, themes, and ideas” of an object’s contents ([Handbook](#), p. 31). Table Appendices I.3 and I.4 tabulate and list all “Subject.Topics” in the [Ibicaba Collection](#) derived from [LCSH](#). The headings “coffee industry - Brazil - São Paulo (State) - history” and “coffee industry - Brazil - history” were assigned to 204 and 202 objects, respectively, reflecting the project’s choice of always starting the description of an object with the broadest possible historical category. General terms referring to accounting follow closely: “records and correspondences” were assigned to 198 objects, and “farm management” to 193. After these, more specific types of

remaining where the family had built up their good fortune. It is also likely that growing xenophobia in the Brazilian First Republic and the animosity against Germans during World War I, including against José Levy personally, may have contributed to his attitude toward the usage of the German language, in spite of his profound cultural, but not patriotic, ties to Germany (Freitas Levy [1993] 2003, p. 471).

¹²⁸ For multiple collections, the fields “Archival Collection Title [physical]”, “Archival Collection Number”, and “Box” and “Folder” are of interest.

¹²⁹ The current (2026) [Template](#) further includes the subcategories “Subject.Geographic” and “Subject.Name”.

¹³⁰ Other categories refer to audiovisual, 3D-objects, and software/digitally-born materials ([Handbook](#), p. 30).

¹³¹ These categorizations were somewhat imperfect for the purposes at hand, as the time coverage of a ledger can include many distinct political regimes. For the purposes of metadata creation, this imperfection is eliminated by the time ranges contained in the categories “Title” and “Dates”. This solution notwithstanding, a Subject Heading classification of Brazilian economic history is certainly due.

accounting and labor categories appear, unsurprisingly mirroring the description given by Table 01: “agricultural laborers” (80), “coffee plantation” (77), and “coffee plantation workers” (71).

“Description” and “Notes” complete the metadata. Written in the vernacular and translated into English, they expand upon the summarized conceptualization given by the keywords. The field “Description” details the contents of the digital objects. In the [Ibicaba Collection](#), it first describes the type of accounting, managerial information, and time coverage of the object. If applicable, this field provides details identified in the source, such as labor categories, major customers, important historical events etc. The field “Notes” gives additional information on the objects’ physical conditions and/or extra content. The [Ibicaba Collection](#) has an average of three notes per digital object, with 197 out of 205 digital objects with at least one note.

The contents of these notes vary substantially. Table 03 is an attempt to summarize them. Each individual note (available in Online Appendix IV) has been classified as referring primarily to “Object Integrity”, “Pagination”, “Markers”, “Provenance”, and “Annexes”. “Object integrity” refers to notes reporting problems with the physicality of a source, *e.g.* missing covers, torn pages, loose bookbinders etc.; it also pinpoints ledgers whose actual number of pages differ from expected pagination, suggesting that a ledger has been torn apart or is missing a certain number of pages. Other issues related to page ordering or to any inconsistency in pagination if done manually by contemporaneous are referred to as “Pagination”. On average, one in every three and one in every twelfth digital objects include notes on “Object Integrity” and “Pagination”, respectively. “Markers”, in turn, are notes about noteworthy historical remarks or markers left on the sources. These markers include checks and ticks made in the course of rural accounting, arithmetic operations and reminders that were particularly common on the backs of covers, and, most importantly, alternative titles written, glued, or printed on ledgers. Because of their daily nature, this is the most common note in the [Ibicaba Collection](#), with an average of 1.4 per digital object. “Provenance” refers to the existence of seals, stamps, and trademarks in the physical object that allows for tracing its provenance back to the producer of the object itself. Notes on “Provenance” have been written for every second digital object, allowing conservationists to trace back their material history, while also providing glimpses of business relations and networks to economic and business historians.¹³² A complete list of typographies and publishers found in the [Ibicaba Collection](#) is available in Table Appendix I.7. Finally, notes on “Annexes” deserve special attention, as they refer to physical items that contemporaries attached (by gluing, stapling, clipping etc.) or added as extra sheets onto or into a ledger. These include extra accounting sheets, scraps of paper and bookmarks, newspaper clippings, advertisements, commercial and personal letters, bills of purchase etc. In the phase of preliminary conservation, these objects were stored in acid-free envelopes for improved preservation; notes on their original placement within a ledger (page numbers, coversheet etc.) were recorded in the metadata for conservation purposes and future attempts of tracing the managerial logic behind them, if any.

¹³² The [Ibicaba Collection](#) includes notes for ledgers whose provenance could not be identified (“No typographical seal”). This information was not used in compiling Table 03.

Table 03 - Descriptive statistics on Notes and Annexes from *Ibicaba Collection*

Variable	Mean	S.D.	Min	Max
Only Digital Objects with Notes (N = 197)				
Object Integrity	0.350	0.566	0	3
Pagination	0.081	0.340	0	3
Markers	1.472	1.086	0	6
Provenance	0.503	0.511	0	2
Only Digital Objects w/ Annexes (N = 120)				
Annexes - Notes	0.995	1.086	0	6
<u>Digitized Annexes</u>				
Objects	5.892	8.047	0	47
Images	14.542	20.442	0	141
<u>Non-digitized Annexes</u>				
Objects	0.283	2.220	0	24
Images	0.533	4.429	0	48

Notes: (1) [Ledger #0025](#) contains reference to the advertisement of a rotating hay rake, which is currently unavailable online due to technical problems (April 2026). Albeit to be corrected, that object entered in this table as *Non-digitized Annexes*. (2) [Ledger #0043](#) contains one extra attachment that was not listed in the *Notes*: a scrap of paper, probably used as bookmark. That object is included in the statistics compiled in this table. (3) [Ledger #0047](#) contains reference to a “relatively new piece of paper bookmarking pages 234-235”. This physical object was not digitized, probably because it referred to a bookmark made for current (not historical) managerial purposes. This object has not been considered in the statistics of the current table. (4) [Ledger #0061](#) contains one extra attachment that was not listed in the *Notes*: one loose sheet with “Payment statements to laborers in São Francisco farm (May 1936)”. That object is included in the statistics compiled in this table. (5) [Ledger #0064](#) contains one extra attachment that was not listed in the *Notes*: a letter to the head of the train station regarding packages, under the letterhead of “José Levy / Cordeiro / Estado de S. Paulo”, May 07, 1929. That object is included in the statistics compiled in this table. (6) Metadata of [Ledger #0083](#) mentions a scrap of paper used as bookmark. This physical item, however, was not digitized, probably because it referred to a bookmark made for current (not historical) managerial purposes. This object has not been considered in the statistics of the current table. (7) [Ledger #0108](#) contains reference to four scraps of paper used as bookmarks. However, only two of them have been digitized, probably because the others referred to bookmarks made for current (not historical) managerial purposes. (8) [Ledger #0109](#) contains an incorrect reference to 32 certificates from *Instituto Agrônomico do Estado de São Paulo*, when the Digital object in fact includes 38 such certificates. The correct number has been used in the statistics compiled here. (9) [Ledger #0114](#): The three deposit slips from *Banco Commercial do Estado de São Paulo* were not digitized. These three items have not been added to the statistics of this table. (10) For any additional inquiry on non-digitized sources, please contact Bruno Witzel de Souza.

Every second digital object of the [Ibicaba Collection](#) contains Annexes. The average digital object with an “Annex” contains six extra documents (totalling 15 images, on average). These Annexes provide still unexplored information on the functioning of plantations; new data on commercial and accounting networks between family businesses, including accounting reports exchanged between managers of different farms owned by *S.A. Levy*; glimpses on the social history of Brazilian planters, including personal and commercial letters; and iconographic items with a potential not yet fully explored (examples in Figure 07). A catalogue of Annexes is available in Online Appendix IV.

Bundles of digital objects (digital images plus metadata) were then sent to MEAP for online publication complying with three open-access tools ([Handbook](#), p. 45). First, each collection and every digital object therein were assigned [Archival Resource Keys \(ARK\)](#), which correspond to a persistent digital identifier. With a clearly identifiable anatomy, ARKs aim at long-term digital preservation.¹³³ Second, metadata was made “accessible and harvestable” through the [Open Archives Initiative Protocol for Metadata Harvesting \(OAI-PMH\)](#), a protocol for invoking structured metadata from data providers (in this case, MEAP’s platform) that are interoperable across multiple collections and operating systems. Third, all published digital objects comply with the [International Image Interoperability Framework \(IIIF\)](#), defined by [UCLA Library](#) as “[...] a standard for rapid delivery of high resolution digital content over the web” that allows for interoperability between digital repositories and various viewing and editing tools. The IIIF-manifest for the [Ibicaba Collection](#) as a whole is available [here](#), while each digital object has also a corresponding JSON manifest assigned to it (e.g. IIIF manifests for [BPML #0001](#) and [Ledger #0001](#)). As for any collection in [MEAP’s portal](#), the [Ibicaba Collection](#) can also be simply retrieved via MEAP’s platform, where digital objects can be browsed by relevance, date, or alphabetically by “Title”, or found with a search engine mapped onto the metadata. Every digital object can be visualized by content or as a gallery. Each digital image can be opened and thereafter downloaded as the view currently displayed in the browser (“Current View”), or as a small or large .JPEG image; to each option, a IIIF URL is provided (e.g. [BPML #0001 in a specific “Current View”](#), or in [small](#) and [large .JPEG](#)).

To guarantee safe storage of the digital collection, one external hard drive (HD) has been given to each PI of the *Ibicaba Project*, to the head manager of the *Ibicaba farm* and to the head of *Paulo Masuti Levy Library*. Each HD contained all digital images, including those few not published online for reasons of data security, and one spreadsheet with the complete metadata.

¹³³ The [Ibicaba Collection](#) has been assigned the permanent ark:/21198/z15t5c4z. “21198” identifies the “Name Assigning Authority Number (NAAN)” (in this case, UCLA Library Digital Collections) and “z15t5c4z”, the “Assigned Name” (in this case, the [Ibicaba Collection](#)).

Figure 07 - Illustration of Annexes from the *Ibicaba Collection* (ctd.)



Notes: (1) Annexes with information on laborers' living conditions in Ibicaba ([Ledger #0016, DI 155 - List of students enrolled in Ibicaba's primary school, 1901](#); [Ledger #0080, DI 262 - Medical bill of Dr. Sebastião de Barros, 1920](#)) and on business networks and history of the Levy family ([Ledger #0114, DI 224 - Bill of purchase Number 1 of H. Levy & Co. with Manoel Baraldo](#); [Ledger #0155, DI 253 - Bill from Ibicaba's own cart workshop, 1956](#); [Ledger #0174, DI 277 - Bill of sale \(empty\) from "Fazenda Ibicaba / Flaminio Levy's" cornmill](#)). (2) Online Appendix IV contains a complete and standardized list of all Annexes in the *Ibicaba Collection*.

IV. Concluding remarks

One of the most important Brazilian plantations of the nineteenth century, *Ibicaba* has been visited, revisited, and visited yet again¹³⁴ by contemporaneous observers of its heydays and by a multitude of scholars ever since. The *Ibicaba Project* has opened new gates into that history. The collection of paper-based historical documents now preserved *in situ* in *Ibicaba* is a private asset to the farm and a patrimony to surrounding communities. The collection is visited almost weekly by schoolchildren, has been used as source for new pedagogical tools,¹³⁵ and provides innovative ways to interpret local histories.¹³⁶ In addition, by digitally reuniting the historical documents from the Levys' era (owned by *Ibicaba farm*) to the remainders of the Vergueiros' era (owned by *Paulo Masuti Levy Library*) after almost six decades apart, the [Ibicaba Collection](#) has added a new dimension of conservation to the contents of those two archives.¹³⁷

Hosted in an open-source platform, their digital surrogates provide new sources for scholarship on classical themes in economic history. With essentially zero consultation costs, *Ibicaba's* records contain abundant microdata on labor remuneration, productivity, consumption, and budgets from workers of very diverse ethnolinguistic and religious origins; high frequency managerial data on rural assets, agricultural outputs, revenues, and costs; as well as information on business networks of regional and national elites. Interesting in general, such records are particularly relevant in a country that has a severe scarcity of censitary microdata.

Therefore, the *Ibicaba Project* needs no further justification than its legacy in patrimonial preservation and fruitfulness for future research. Notwithstanding, it can also be seen as the first step in a concerted cultural and scientific effort to systematically survey, locate, preserve *in situ*, and digitize historical records referring to Brazilian rural history.

The *Accounting for the Countryside Project*, an MEAP's [Regional Grant](#), is currently applying the measures of preventive conservation and digitalization described in this paper to five other collections. That project aims at scaling up the preservation (physical and digital) commenced by the *Ibicaba Project*. Records analogous to those of *Ibicaba*, as well as new sources on environmental and cultural history, will be made available in MEAP's portal until the end of 2027. New collections encompass the archives of (1) *Santa Gertrudes* plantation (Santa Gertrudes County): Managerial and labor records;¹³⁸ (2) *Casa Feltrin* (Itaqueri da Serra County), a smallholding and general store founded by Italian immigrants: Managerial and labor records;¹³⁹ (3) *Casa da Cultura de Cascalho*, a museum in the homonymous rural settlement

¹³⁴ Paraphrasing the titles of Witter (1996) and Mendes (2017).

¹³⁵ By guides trained in *Ibicaba farm* and by innovative pedagogical proposals, such as that conceptualized by Carolina Carvalho da Silva, an ex-tour guide in *Ibicaba*, geography teacher, and *Ibicaba Project's* Lead R.A.

¹³⁶ E.g. the 2022 events promoted by *Casa da Cultura de Cascalho*, independently using the materials from the *Ibicaba Project* (tour "Rota do Imigrante" and exhibit "Ibicaba. Berço da colonização in São Paulo").

¹³⁷ We are confident about the existence of additional ledgers from *Ibicaba*, as evidenced by the cover of ledger [BPML #0002](#), which suggests the existence of four previous ledgers, including records of the *Sharecroppers' Rebellion*; or by references to *Vergueiro & Co.*'s accounting records in [BPML #0005](#) (e.g. DI 15-6, 104-5).

¹³⁸ Similarly to *Ibicaba's* records, *Santa Gertrudes'* collections are separately housed in [Santa Gertrudes plantation](#) (owned and managed by Luis F. de Arruda Botelho) and in [Arquivo Público e Histórico de Rio Claro](#).

¹³⁹ Owned and managed as a local museum by Benedicta Feltrin.

founded by the State of São Paulo in 1893 (Cordeirópolis County): Economic and cultural records;¹⁴⁰ and (4) *Floresta Estadual “Edmundo Navarro de Andrade”*, a conservation unit from *São Paulo State’s Forest Conservation Foundation* (Rio Claro - SP County): Managerial and labor records from *Cia. Paulista de Estrada de Ferro* and *FEPASA* railroads, as well as managerial and research papers from the agroforestry station of those companies and of its scientific head, Dr. Edmundo Navarro de Andrade.¹⁴¹ Another team of researchers is surveying, in parallel, the contents of three plantations in the *Paraíba Valley* region of Rio de Janeiro, *i.e.* the first expansion zone of coffee plantations in Brazil. These groups are improving upon the protocols established by the *Ibicaba Project*, while also demonstrating their scalability.

The *Ibicaba* and the *Accounting for the Countryside* projects led up to the strategic goal of establishing an institutional structure for scaling up conservation and digitalization of Brazilian historical rural records. Surveying the existence, extent, and degree of endangerment of these collections is the first step. By the mid-twentieth century, in a manual on rural bookkeeping, Erly Brandão (1945, pp. 61-2) estimated that less than 1% of all rural units in the Brazilian State of Minas Gerais kept any type of organized accounting; however, within that minor fraction, 55.2% of the largest units (plantation-like) did keep such records (*cf.* Berrance de Castro and Baiocco 1969, pp. 669-70). Beyond Citizen Science, which was the origin of all collections found for the *Accounting for the Countryside Project*, we are further relying on cooperations with GLAMs that house such collections, as well as surveying the historical literature and sources to identify plantations and farms that kept any form of historical rural accounting (*e.g.* Couty 1883; Delden Laërne 1885). Such efforts are not at all limited to large archives, complete series, or by records’ antiquity (*cf.* Berrance de Castro 1965, p. 371). Rather, even a single ledger from later periods is an important piece to a puzzle whose number of observations remains very small for historical reasons that can now start being improved.

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Online Appendix - I

Extra Tables from Metadata and Annexes of the [*Ibicaba Collection*](#)

1. **Table Appendix I.1** - Authors & Contributors to the *Ibicaba Collection*
 - a. List of uniquely identified authors/contributors, in alphabetical order
2. **Table Appendix I.2** - Languages identified in the *Ibicaba Collection*
3. **Table Appendix I.3** - Number of “Subject Topic” headings used to identify digital objects in the *Ibicaba Collection*
4. **Table Appendix I.4** - *Ibicaba Collection*: Count of Subject Topics
5. **Table Appendix I.5** - Number of notes in the metadata of the *Ibicaba Collection*, per Digital object
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7. **Table Appendix I.7** - Typographical seals & stamps in the *Ibicaba Collection*

Table Appendix I.1 - Authors & Contributors to the *Ibicaba Collection*

Creators/Contributors	Digital Objects ⁽¹⁾	Physical pages	Digital Objects
Creators			
Fazenda Ibicaba (Cordeirópolis, SP)	193	-	-
Levy, Flaminio	5	324	Ledgers #0129; 0136; 0138; 0139; 0141
Garcias Santiago, Ricardo	3	184	Ledgers #0136; 0138; 0139
Judicial institutions of the Brazilian Empire	1	316	PMLL #0005 ⁽³⁾
Judicial institutions of the Brazilian Federative Republic	1	316	PMLL #0005
Levy, Fernando	1	220	PMLL #0006
Levy, Huberto	1	220	PMLL #0006
Fazenda Goyapá (Rio Claro - SP)	1	208	Ledger #0058
Fazenda Goyapá (Rio Claro - SP)	1	208	Ledger #0058
Banca Italiana di Sconto	1	94	Extra docs #0005
Silveira Filho, Francisco	1	40	Ledger #0129
Levy family, Members of (unidentified)	1	9 docs	Extra docs #0003
Baruel, Pauperio & Comp.	1	1 poster	Extra docs #0002
Martin, Jules-Victor-André	1	1 drawing	Extra docs #0001
Contributors⁽²⁾			
Levy family, Members of (unidentified)	13	2956	Extra docs #0006; Ledgers #0006; 0008; 0012; 0038; 0064; 0078; 0088; 0089; 0090; 0095; 0146; PMLL #0006
Levy, José	9	2714	Extra docs #0004; Ledgers #0017; 0038; 0064; 0078; 0085; 0088; 0089; PMLL #0005
Levy, Flaminio	6	1083	Ledgers #0038; 0058; 0127; 0130; 0134; 0177
Administration of Iracema farm	5	1510	Ledgers #0069; 0070; 0071; 0080; 0093
Levy, Sociedade Anônima (S.A.)	5	1212	Ledgers #0078; 0088; 0089; 0095; 0143
Vergueiro & Cia.	3	1162	PMLL #0001; PMLL #0002; PMLL #0005
Administration of Ipiranga and São Francisco farms	3	1060	Ledgers #0072; 0076; 0101
Levy, Huberto	3	1026	Ledgers #0089; 0109; 0124
Medeiros, Raul R.	2	140	Ledgers #0139; 0141
Administration of Santa Marina farm	2	118	Ledgers #0104; 0112
Almeida Guimarães, Francisco de	1	9 docs	Extra docs #0003
Amarante, João Baptista	1	9 docs	Extra docs #0003
Della Coletta Brothers ("Irmãos")	1	9 docs	Extra docs #0003

Table Appendix I.1 - Authors & Contributors to the *Ibicaba Collection* (ctd.)

Creators/Contributors	Digital Objects ⁽¹⁾	Physical pages	Digital Objects
Ferraz de Abreu, Alberto	1	9 docs	Extra docs #0003
Leão Bourroul, Estevam	1	9 docs	Extra docs #0003
Rodrigues, Octaviano José	1	9 docs	Extra docs #0003
Silveira, Jacintho C.	1	9 docs	Extra docs #0003
Glasser, Carlos	1	4 maps	Extra docs #0010
Ometto, Luiz	1	4 maps	Extra docs #0010
Sabino Ometto, João Guilherme	1	4 maps	Extra docs #0010
Barbosa Pinho, José	1	25 items	Extra docs #0011
von der Heyde, Dr.	1	25 items	Extra docs #0011
Weber, Otto	1	25 items	Extra docs #0011
Castro, Joaquim de	1	504	Ledger #0080
Prado, Candido	1	504	Ledger #0080
Fischer, Antonio	1	480	PMLL #0002
Freitas Levy, Cassio	1	470	Ledger #0161
Granço, Ezequiel	1	404	Ledger #0085
Levy & Irmão	1	404	Ledger #0085
Levy, Edegar	1	404	Ledger #0085
Chagas Pinto Salles, Francisco das	1	316	PMLL #0005
Ferreira de Camargo, Coronel Flaminio	1	316	PMLL #0005
Gonçalves da So. Filho, Francisco	1	316	PMLL #0005
Levy, Simão	1	316	PMLL #0005
Vergueiro, José	1	316	PMLL #0005
Roland Sobrinho, Ernesto	1	306	Ledger #0142
Bueno, Emilia	1	298	Ledger #0016
Held, Antonio Carlos de	1	298	Ledger #0016
Mello, Juvenal	1	298	Ledger #0016
Joaquim Pereira & Cia.	1	278	Extra docs #0004
Levy & Cia., J.	1	278	Extra docs #0004
Guests in Ibicaba farm	1	220	PMLL #0006
Administration of Goyapá farm	1	208	Ledger #0058
Souza Pinto, José de	1	208	Ledger #0058
Administration of Ipiranga farm	1	196	Ledger #0061
Baptista, Lazaro	1	100	Ledger #0107
Roland, Flaminio	1	100	Ledger #0141
Del Gigante, Mariano	1	94	Extra docs #0005
Souza Dias, Carlos Augusto de	1	40	Ledger #0139

Notes: (1) Entries are ordered by number of “Digital objects”, “Physical pages”, and then alphabetically. This provides only a rough approximation of volume of authorship, as most sources have a number of unknown contributors. (2) Except for “Administration of Goyapá farm”, all other entries refer to objects classified as created by “Fazenda Ibicaba” (see “Creators”). (3) The abbreviation “PMLL” refers to “Paulo Masuti Levy Library”.

List of uniquely identified authors/contributors, in alphabetical order

1. Almeida Guimarães, Francisco de
2. Amarante, João Baptista
3. Banca Italiana di Sconto
4. Baptista, Lazaro
5. Barbosa Pinho, José
6. Baruel, Pauperio & Comp.
7. Bueno, Emilia
8. Castro, Joaquim de
9. Chagas Pinto Salles, Francisco das
10. Del Gigante, Mariano
11. Della Coletta Brothers (“Irmãos”)
12. Fazenda Ibicaba
13. Ferraz de Abreu, Alberto
14. Ferreira de Camargo, Coronel Flaminio
15. Fischer, Antonio
16. Freitas Levy, Cassio
17. Garcias Santiago, Ricardo
18. Glasser, Carlos
19. Gonçalves da So. Filho, Francisco
20. Goyapá farm
21. Granço, Ezequiel
22. Guests in Ibicaba farm
23. Held, Antonio Carlos de
24. Ipiranga and São Francisco farms
25. Iracema farm; Joaquim Pereira & Cia.
26. Judicial institutions of the Brazilian Empire
27. Judicial institutions of the Brazilian Federative Republic
28. Leão Bourroul, Estevam
29. Levy & Cia., J.
30. Levy & Irmão
31. Levy family, Members of (unidentified)
32. Levy, Edegar
33. Levy, Fernando
34. Levy, Flaminio
35. Levy, Huberto
36. Levy, José
37. Levy, Simão
38. Levy, Sociedade Anônima (S.A.)
39. Martin, Jules-Victor-André
40. Medeiros, Raul R.
41. Mello, Juvenal
42. Ometto, Luiz
43. Prado, Candido
44. Rodrigues, Octaviano José
45. Roland Sobrinho, Ernesto;
46. Roland, Flaminio
47. Sabino Ometto, João Guilherme
48. Santa Marina farm

49. Silveira Filho, Francisco
50. Silveira, Jacintho C.
51. Souza Dias, Carlos Augusto de
52. Souza Pinto, José de
53. Vergueiro & Cia.
54. Vergueiro, José
55. von der Heyde, Dr.
56. Weber, Otto

Table Appendix I.2 - Languages identified in the [Ibicaba Collection](#)

Digital Object ⁽¹⁾	Time coverage	Creators and Contributors ⁽²⁾	Notes on language
German			
PMLL #0002 - Workers' checking accounts	1862-1872	Fazenda Ibicaba Vergueiro & Cia. Antonio Fischer	Handwritten slip of paper sent to a certain Mr. Laby on commercial operations (1863 and 1864)
PMLL #0006 - Guestbook	1908-1945	Huberto Levy Fernando Levy Members of family Levy Guests in Ibicaba farm (1908-1945)	Beyond German-speaking visitors, book's opening in Frankfurt am Main, 1908
Extra docs. #0006 - Current account & Miscellanea	1927-1933	Fazenda Ibicaba Members of family Levy	Short notes on the Levys' genealogy
Extra docs. #0011 - Loose covers, coversheets & book spines	-	Fazenda Ibicaba Otto Weber Dr. von der Heyde José Barbosa Pinho	Loose coversheet (free translation): "Mr. Otto Weber, Engineer – to the Royal-Imperial Consul Dr. von der Heyde, German Consulate [in] São Paulo"
Italian			
Extra docs. #0005 - Banking book, Banca Italiana di Sconto (1920)	1920	Banca Italiana di Sconto Mariano Del Gigante	Account holder's book of the "Banca Italiana di Sconto" (blank)
Ledger #0011 - Laborers' payroll	1892-1896	Fazenda Ibicaba	List of pork meat sold to colonists, probably in Italian
Ledger #0017 - Cash flow	1898-1909	Fazenda Ibicaba José Levy	List of pork meat sold to colonists, probably in Italian
Ledger #0020 - Current account (Accounting book of customers and commercial partners)	1899-1906	Fazenda Ibicaba	
Ledger #0022 - Coffee harvest & Registries of processing and shipping	1900-1911	Fazenda Ibicaba	
Ledger #0028 - Current account (Accounting book of customers and commercial partners)	1905-1908	Fazenda Ibicaba	

Table Appendix I.2 - Languages in *Ibicaba Collection* (ctd.)

Digital Object ⁽¹⁾	Time coverage	Creators and Contributors ⁽²⁾	Notes on language
Italian (ctd.)			
Ledger #0081 - Stockfarming registries	1930-1934	Fazenda Ibicaba	Laborer's booklet with printed info in Portuguese and Italian
Ledger #0087 - Coffee processing registries	1931-1944	Fazenda Ibicaba	Laborer's booklet with printed info in Portuguese and Italian/
PMLL #0006 - Guestbook	1908-1945	Huberto Levy Fernando Levy Members of family Levy Guests in Ibicaba farm (1908-1945)	Signatures and notes in Italian
French			
PMLL #0006 - Guestbook	1908-1945	Huberto Levy Fernando Levy Members of family Levy Guests in Ibicaba farm (1908-1945)	Signatures and notes in French

Notes: This table does not take into consideration typographical seals and advertisements of specific typographies glued to older ledgers, which have other languages or further entries in French, German, and Italian. (2) This table's column of "Creators and contributors" is purely suggestive: it adds here the corresponding metadata column, without implying that these authors/contributors wrote the notes in the corresponding foreign languages.

Table Appendix I.3 - Number of “Subject Topic” headings used to identify digital objects in the [Ibicaba Collection](#)

Subject.Topic Count	Frequency	Ledgers
16	1	Extra docs #0003
14	2	PMLL #0001; PMLL #0005
12	3	Ledger #0086; #0158; PMLL #0004
11	21	Ledgers #0001; #0004; #0007; #0010; #0015; #0018; #0019; #0054; #0061; #0072; #0082; #0103; #0104; #0110; #0112; #0118; #0125; #0136; Extra docs #0006; PMLL #0002; PMLL #0003
10	7	Ledgers #0076; #0102; #0107; #0111; #0117; #0121; #0122
9	39	Ledgers #0011; #0016; #0023; #0031; #0063; #0066; #0081; #0085; #0094; #0109; #0120; #0123; #0127; #0132; #0135; #0140; #0144; #0147; #0148; #0149; #0152; #0153; #0155; #0156; #0158; #0161; #0164; #0166; #0167; #0169; #0171; #0173; #0174; #0175; #0176; #0178; #0180; #0181; Extra docs #0005
8	40	Ledgers #0003; #0022; #0027; #0030; #0032; #0035; #0039; #0041; #0044; #0047; #0048; #0051; #0052; #0053; #0055; #0059; #0060; #0065b; #0067; #0069; #0073; #0075; #0080; #0084; #0087; #0091; #0092; #0096; #0108; #0119; #0129; #0130; #0134; #0138; #0139; #0141; #0165; #0168; Extra docs #0008; Extra docs #0009
7	47	Ledgers #0005; #0006; #0008; #0012; #0013; #0020; #0021; #0025; #0028; #0034; #0038; #0040; #0042; #0045; #0050; #0057; #0058; #0064; #0068; #0070; #0071; #0077; #0089; #0090; #0105; #0114; #0126; #0131; #0137; #0143; #0145; #0146; #0150; #0151; #0157; #0160; #0162; #0170; #0177; #0179; #0182; #0183; #0185; Extra docs #0001; Extra docs #0004; Extra docs # 0011; Extra docs #0012
6	39	Ledgers #0002; #0009; #0014; #0017; #0024; #0026; #0029; #0033; #0036; #0037; #0043; #0046; #0049; #0056; #0062 #0065; #0074; #0079; #0083; #0093; #0095; #0097; #0098; #0099; #0100; #0101; #0106; #0113; #0115; #0116; #0124; #0128; #0133; #0142; #0154; #0163; #0172; #0184; Extra docs #0007
5	4	Ledgers #0078; #0088; PMLL #0006; Extra docs #0010
4	2	Extra docs #0002; Extra docs #0013

Note: All “Subject Headings” used by the *Ibicaba Project* are derived from the [Library of Congress Subject Headings \(LCSH\)](#)

Table Appendix I.4 - *Ibicaba Collection*: Count of Subject Topics

Subject	Count
coffee industry--Brazil--São Paulo (State)--history	204
coffee industry--Brazil--history	202
records and correspondence	198
farm management	193
agricultural laborers	80
coffee plantation	77
coffee plantation workers	71
commercial documents	68
balance of trade	64
checking accounts	47
bookkeeping	45
farm shops	41
account books	33
accounts current	30
cash flow	25
coffee plantations	18
coffee growers	17
cost accounting	14
historical costs (Accounting)	14
coffee--harvesting	13
labor costs	12
payrolls	12
wages--accounting	12
agricultural estimating and reporting	8
cropping systems	
sales; sales tax	6
animal industry--accounting; crop yields; livestock; livestock productivity;	4
livestock--breeding--Brazil	
animal feeding; brick trade; ceramic tiles; coffee--processing; orchards;	3
pottery industry; roofing, tile; selling-bricks; sugar plantations; sugarcane;	
sugarcane industry; tiles, roofing; wages-livestock workers	
coffee industry--Brazil—history; sugar factories	2

Table Appendix I.4 - Count of Subject Topics (ctd.)

Subject	Count
Architecture--Designs and plans--Working drawings; Brazil--genealogy; Christian saints--Calendar; Drawing, Brazilian; Drawing--Private collections; German--genealogy; Jews--German--genealogy; Landscape drawing; Landscape drawing--19th century; Monochrome drawing	1
articles of incorporation; bank accounts; bank buildings; bank customers; Landscape drawing; Landscape drawing--19th century; Monochrome drawing; articles of incorporation; bank accounts; bank buildings; bank customers; bankruptcy; bankruptcy examiners; bankruptcy--Brazil; banks and banking, Brazilian; banks and banking, Italian; book covers; book spines; butcher shops; calendars; church committees; contracts for deeds; corporate meetings--Law and legislation; corporate minutes--Law and legislation; corporate reorganizations--Law and legislation; electric wiring, Interior--Charts, diagrams, etc.; farm tractors; genealogy; government auctions; government auctions; guest books; inheritance and succession; inheritance and succession--Brazil; inheritance and succession--law and legislation; inventories of decedents' estates--Brazil; inventories--accounting; inventories--accounting--law and legislation; inventory control--data processing; lunar calendars; motor vehicle--registration and transfer; motor vehicles; motor vehicles--maintenance and repair; mutual health organizations; notaries; notaries--Brazil; orange industry--employees; oranges; parish houses; printing--calendars; real property auctions; real property--maps; selling--farm tractors; slaughtering and slaughter-shops; swine; swine--breeding; swine--housing; topographic maps; tractors--maintenance and repair; tractors--valuation; used farm tractors	1

Notes: (1) Each "Subject.Topic" is listed only once for each Digital object; (2) LCSH's Headings are case sensitive.

Table Appendix I.5 - Number of notes in the metadata of the *Ibicaba Collection*, per Digital object

Number Notes	Freq.	Percent	Cum.
0	8	3.9	3.9
1	27	13.17	17.07
2	32	15.61	32.68
3	51	24.88	57.56
4	43	20.98	78.54
5	26	12.68	91.22
6	10	4.88	96.1
7	3	1.46	97.56
8	3	1.46	99.02
10	2	0.98	100
Total	205	100	

Table Appendix I.6 - Number of images from Annexes in the [Ibicaba Collection](#)

Number Images	Freq.	Percent	Cum.
0	88	42.93	42.93
1	4	1.95	44.88
2	26	12.68	57.56
3	5	2.44	60
4	18	8.78	68.78
6	10	4.88	73.66
7	1	0.49	74.15
8	6	2.93	77.07
9	2	0.98	78.05
11	2	0.98	79.02
12	2	0.98	80
13	1	0.49	80.49
14	4	1.95	82.44
15	1	0.49	82.93
16	1	0.49	83.41
17	1	0.49	83.9
20	2	0.98	84.88
22	2	0.98	85.85
23	1	0.49	86.34
26	2	0.98	87.32
27	2	0.98	88.29
28	4	1.95	90.24
30	1	0.49	90.73
32	2	0.98	91.71
34	2	0.98	92.68
35	3	1.46	94.15
36	1	0.49	94.63
38	3	1.46	96.1
41	3	1.46	97.56
45	1	0.49	98.05
83	2	0.98	99.02
89	1	0.49	99.51
141	1	0.49	100
Total	205	100	

Table Appendix I.7 - Typographical seals & stamps in the *Ibicaba Collection*

Link to image in the Ledger ⁽³⁾	Typography, Brand, or Company	Description of stamp, seal or trademark in the source	County	Remarks
Ledger #0001 - Workers' checking accounts & Laborers' payroll (1889-1892)	Moreira, Maximino & Cia.	Tipografia, litografia, encadernação, loja de papel e livros em branco	Rio de Janeiro	Glued seal; blank field for numbering the ledger
Ledger #0002 - Daily workers' timesheet (1890-1892)	Ao Livro Azul / A. B. de Castro Mendes & C.	Papelaria, Pianos e Tipografia	Campinas	Stamped
Ledger #0010 - Workers' checking accounts (1893-1897)	Ao Livro Azul / Castro Mendes & Irmão	Loja de papel, livros em branco, artigos de escriptorio e desejo, objectos para presentes e brinquedos para crianças. Tipografia e pautação	Campinas	Glued seal
Ledger #0011 - Laborers' payroll (1892-1896)	Au Monde Elegant / A. Genoud	Livraria, Musicas	Campinas	Stamped
Ledger #0015 - Workers' checking accounts (1896-1901)	Casa Rosenhain	Typographia, papelaria, fábrica de livros em branco, artigos de desenho e de pintura e instrumentos de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Note: "Para obter livro igual queira dar o n. 439 de 300 fls"; Price = 58\$000; Postal address: Caixa do correio, número 385; Telephone: "Central 335"
Ledger #0022 - Coffee harvest & Registries of processing and shipping (1900-1911)	Farani Magaldi & Cia.		Limeira	Stamped
Ledger #0024 - Daily workers' timesheet (1901-1902)	Casa Livro Azul / Castro Mendes & Irmão	Papelaria, artigos de escriptorio, objectos de fantasia e brinquedos para crianças. Depósito e importação de pianos, typographia e fábrica de livros em branco	Campinas	Glued seal; Steampowered production plant
Ledger #0026 - Daily workers' timesheet (1902-1903)	Ao Livro Azul		Campinas	Glued seal; With field for numbering the ledger; Price = 7\$
Ledger #0027 - Workers' checking accounts (1902-1905)	Pauperio & Cia.	Typographia a vapor, papelaria, fábrica de livros em branco, artigos de fantasia e de escriptorio	São Paulo	Glued seal; Note: "Para obter outro livro igual dará o n. 4353 com 300 fls"; Address: Caixa postal n 151; Steampowered production plant

Ledger #0028 - Accounting book of customers and commercial partners, Ibicaba farm & proprietors (1905-1908)	Ribeiro, Macedo & Comp.	Papelaria, oficinas de typographia, lithografia, encadernação e pautaçaõ	Rio de Janeiro	Glued seal; Note: "Obtem-se um livro do igual modelo, indicando este número com a quantidade de folhas que precisar. N. 203"; Sold by "Farani, Magaldi & Cia.". Extra stamp with info: "Estado de S. Paulo - Limeira"
Ledger #0029 - Registry of coffee trees assigned to laborers (1905-1911)	Farani Magaldi & C.		Limeira	Stamped
Ledger #0030 - Workers' checking accounts (1905-1907)	Ao Livro Azul / A. B. de Castro Mendes	Livros em branco e artigos de escriptório, oficinas typographicas	Campinas	Glued seal; Note: "Fls 300, custo (blank), venda (blank)".
Ledger #0033 - Daily workers' timesheet (1907-1909)	Ao Livro Azul / Castro Mendes & Irmão	Typographia, papelaria, encadernação e pautaçaõ. Artigos para escriptório, depósito de pianos	Campinas	Stamped
Ledger #0035 - Workers' checking accounts (1908-1910)	Paulillo, Magaldi & Cia.		Limeira	Stamped
Ledger #0036 - Cash flow (1909-1918)	Typographia Siqueira	Encadernação, pautaçaõ, douraçaõ, [?] de livros em branco, [?] carimbos de borracha		Glued seal; partially illegible due to overlapping seal
Ledger #0037 - Daily workers' timesheet (1909-1911)	Casa Livro Azul		Campinas	Stamped
Ledger #0038 - Accounting book of customers and commercial partners, Colonel José Levy (1909-1932)	Espíndola & Comp.	Encadernação, Pautaçaõ e Douraçaõ. Fábrica de livros em branco e carimbos de borracha. Artigos para escriptorio e objectos de Phantasia	São Paulo	Glued seal; Note: "Para obter livro igual dará o N. 309 fls.100"; Steampowered production plant
Ledger #0039 - Workers' checking accounts (1910-1912)	Cardozo, Filho & Co.	Typographia, encadernação, pautaçaõ, douraçaõ, fábrica de livros em branco e carimbos de borracha. Artigos de escriptorio e objectos de fantasia	São Paulo	Glued seal; Note 01: "Papelaria Paupério, casa fundada em 1884, caixa postal 151 e telephone 341"; Note 02: "para obter outro livro igual dará o n. 7213 com 300 fls"
Ledger #0041 - Workers' checking accounts (1911-1913)	Augusto Siqueira & Comp.	Typographia, encadernação, pautaçaõ, douraçaõ, fábrica de livros em branco e carimbos de borracha	São Paulo	Glued seal; Address: "Caixa do correio, 178, oficinas e depósito na rua Xavier de Toledo, 16 e loja na Rua Alvares Penteado, 5-B. Telephone, 1216"; Note: "para obter livro igual dará o n. 1380 fls 250"

Ledger #0042 - Accounting book of customers and commercial partners (1911-1915)	Espindola & Comp.	Encadernação, fábrica de livros em branco e carimbos de borracha; estereotypia, artigos para escriptorio e objectos de phantasia. Pautação e douração	São Paulo	Glued seal; Note: "Para obter livro igual dará o n. 310 fls 150"; Electric powered production plant
Ledger #0044 - Coffee harvest & Registries of processing and shipping (1912-1930)	Typographia Siqueira / Augusto Siqueira & C.	Encadernação, pautação, douração, fábrica de livros em branco e carimbos de borracha	São Paulo	Glued seal; Address: Endereço das oficinas, Rua Xavier de Toledo, 16. Caixa do correio 178 e Telefone 1216; Note: "Para obter livro equal dará o n. 1587 fls 100"
Ledger #0046 - Daybook, Ibicaba's butchery (1913-1915)	Typographia Siqueira / Augusto Siqueira & C.	Encadernação, pautação, douração, fábrica de livros em branco e carimbos de borracha	São Paulo	Glued seal; Address: Endereço das oficinas, Rua Xavier de Toledo, 16. Caixa do correio 178 e Telefone 1216; Note: "Para obter livro equal dará o n. 1587 fls 100"
Ledger #0047 - Workers' checking accounts (1913-1914)	Siqueira, Nagel & Comp.	Typographia, encadernação, pautação, douração, fábrica de livros em branco e carimbos de borracha	São Paulo	Glued seal; Address: Caixa do correio 178, telefone 1216. "Endereço das oficinas Rua Conde de São Joaquim, 22"; Note: "Para obter livro equal dará o n. 259 fls 200. Preço 26\$"
Ledger #0051 - Workers' checking accounts (1915-1916)	Oliveira Scartezini & Cia.		Limeira	Stamped
Ledger #0053 - Workers' checking accounts (1917-1918)	A Propagandista / Levy Sobrinho & Coruja		Limeira	Stamped
Ledger #0054 - Laborers' payroll & List of households (1917-1921)	Oliveira Scartezini & Cia.		Limeira	Stamped
Ledger #0055 - Workers' checking accounts (1918-1920)				Glued seal; Initialled "W I"
Ledger #0056 - Cash flow (1918-1927)	Pocai & Cia	Estabelecimento Graphico e papelaria; artigos de escriptorio, impressos e livros commerciaes		
Ledger #0060 - Workers' checking accounts (1921-1923)	Papelaria Carvalho	Importação directa de livros para escriptorio	São Paulo	Glued seal; Telephone: "Central [?]. Caixa, [?]; Note: "Para um livro equal dará o n. [?] fls. [?]", with illegible handwritten notes

Ledger #0064 - Accounting book of customers and commercial partners, Ibicaba farm & proprietors (1922-1928)	[torn] deaux / Illegible	Illegible	Illegible	Illegible
Ledger #0065 - Daily workers' timesheet (1922-1925)	Casa Rosenhain	Typographia, fábrica de livros em branco, papelaria	São Paulo	Glued seal; Note: "Para obter livro igual queira pedir o n. 391 de 100 fls. Preço 12\$500"
Ledger #0065b - Workers' checking accounts (1923-1926)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: Central 335; Note: "para obter igual queira dar o n. 439 de 300 fls."
Ledger #0066 - Stockfarming registries (1924-1925)	Casa Espindola		São Paulo	Glued seal; Note: "N. 3826 Dará este nº para obter um livro igual com 50 fls."
Ledger #0068 - Coffee harvest registries (1925-1928)	Casa Espindola		São Paulo	Glued seal; Note: "N. 12623 Dará este nº para obter um livro igual com 50 fls."
Ledger #0071 - Accounting book of customers and commercial partners, Iracema farm (1926-1937)	Casa Rosenhain	Typographia. Fabrica de livros em branco. Papelaria	São Paulo	Glued seal; Note: "Para obter livro igual queira pedir o n. 336 de 100 fls. Preço 16\$500"
Ledger #0073 - Workers' checking accounts (1927-1929)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: Central 335; Note: "para obter igual queira dar o n. 439 de 300 fls. Preço 58.000"
Ledger #0074 - Cash flow (1927-1934)	Casa Rosen[hain]	Typographia, fábrica de livros em branco, papelaria	São Paulo	Glued seal; Note: "Para obter livro igual queira pedir o n. 339 de 250 fls. Preço 34\$000"
Ledger #0075 - Workers' checking accounts (1929-1931)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: Central 335; Note: "para obter igual queira dar o n. 439 de 300 fls. Preço 58.000"
Ledger #0077 - Coffee harvest registries (1929-1959)	Casa Espindola	Encadernação - typographia, pautação - douração, fábrica de livros em branco	São Paulo	Glued seal; Address: Oficinas e depósito: Rua do Hippodromo n. 293. Caixa, 333. Telephone 2-0962. Note: "Para obter um livro igual dará o n. 12623 fls. 200"

Ledger #0078 - Coffee consignments, S/A Levy (1930-1931)	Originally, printed laborer's booklet			
Ledger #0081 - Stockfarming registries, (1930-1934)	Originally, printed laborer's booklet			
Ledger #0082 - Pottery registries (1930-1937)	Originally, printed laborer's booklet			
Ledger #0084 - Workers' checking accounts (1931-1933)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: 2-0335. Note: "para obter igual queira dar o n. 439 de 300 fls. Preço 65.000"
Ledger #0085 - Laborers' payroll (1931-1942)		Ledger produced on demand (pages headed by "Ibicaba farm / José Levy & Sons" (free translation)		
Ledger #0087 - Coffee processing registries (1931-1944)	Originally, printed laborer's booklet			
Ledger #0092 - Workers' checking accounts (1933-1935)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: 2-0335. Note: "para obter igual queira dar o n. 439 de 300 fls. Preço 65.000"
Ledger #0096 - Workers' checking accounts (1935-1938)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do Correio, 385; Telephone: 2-0335. Note: "para obter igual queira dar o n. 493 de 300 fls. Preço 92.000"
Ledger #0098 - Registry of coffee trees assigned to laborers, Iracema farm (1936-1937)	Originally, laborer's booklet			
Ledger #0099 - Registry of coffee trees assigned to laborers, Colônia Grande in Ibicaba farm (1936-1941)	Originally, laborer's booklet			

Ledger #0100 - Registry of coffee trees assigned to laborers, Colônias Grama Larga, Morro Alto, and Lage in Ibicaba farm (1936-1941)	Originally, laborer's booklet			
Ledger #0101 - Registry of coffee trees assigned to laborers, São Francisco and Ipiranga farms (1937)	Originally, printed laborer's booklet			Laborers' booklet with São Francisco farm seal
Ledger #0108 - Workers' checking accounts (1938-1942)	dpn [?]	Para obter um livro igual é suficiente citar o numero n. 523 c		Glued seal
Ledger #0117 - Nominal ledger (1940-1943)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do correio, 385. Telephone 2-0335; Note: "Para obter livro igual queira dar o N. 487 de 200fls."
Ledger #0118 - Inventories & General balances (1940-1943)	Casa Rosenhain	Typographia, Papelaria. Fábrica de livros em branco, artigos de desenho e de pintura. Instrumento de engenharia. Especialidade em trabalhos commerciaes	São Paulo	Glued seal; Address: Caixa do correio, 385. Telephone 2-0335. Note: "Para obter livro igual queira dar o N. 484 de 300fls."
Ledger #0119 - Workers' checking accounts (1941-1943)	dpn [?]	Para obter um livro igual é suficiente citar o numero n. 523 c		Glued seal
Ledger #0122 - Nominal ledger & Crops registry (1943)	Typographia Siqueira / Siqueira, Nagel & C.	Encadernação, pautação, douração, fabrica de livros em branco e carimbos em borracha	São Paulo	Glued seal; Contact info: Rua Xavier de Toledo, 16. Caixa do correio, 178. Telephone 1216; Note: "Para obter livro igual dará o n. 127 fls. 300"
Ledger #0123 - General journal accounting & Daybook (1943-1944)	Carteira Comercial Paulista 1943 / Rothschild Loureiro & Cia Ltda		São Paulo	See DI 12
Ledger #0130 - Stamp duty registry (1945-1949)	Unidentified typographical stamp	Fundada em 1906. Marca registrada		Note: "Para obter livro igual dará o L. N. 8576 fls. 20"
Ledger #0131 - Cost accounting (1946-1948)	Tipografia Ipiranga / Moreira & Moreira Ltda.	Papelaria, encadernação, pautação, livros em branco e objetos para escritório	Santos	Glued seal; Contact info: "Caixa n. 456. Telefone n. 6534"; Note: "Para obter um livro igual, pedirá o n. 482 com 100 fls."

Ledger #0132 - General journal accounting & Daybook (1947)	Tipografia e papelaria Brasil / Acacio Leite & Cia	Fundada em 1893. Usa os envelopes Café - Marca Registrada. Objetos de escritório. Importação direta. Encadernação, douração, pautaço, livros em branco	Santos	Contact info: "Telefones: 2985 e 6849. Caixa, 37"
Ledger #0133 - Cash flow (1947-1949)	Tipografia Ipiranga / Moreira & Moreira Ltda.		Santos	Glued seal; Contact info: "Telefone, 6534. Caixa postal, 456"; Note: "Para obter um livro igual, pedirá o N. 470 com 50 fls."
Ledger #0135 - General journal accounting & Daybook (1948)	Tipografia Atlantica / Irmãos Borowski	Artigos escolares. Objetos para escritorio. Livros em branco. Impressos em geral	Santos	Santista Edition of "Carteira Comercial Paulista para 1948". Contact info: "Fone 6890"
Ledger #0137 - Cost accounting (1948-1950)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Encadernação, pautaço, douração, objetos para escritorio, etc.	Santos	Glued seal; Contact info: "Fones, 2985 e 6849. Caixa, 37"; Note: "Para obter um livro igual indicar o N. 482 Fls. 100"
Ledger #0140 - General journal accounting & Daybook (1949)	Tipografia e papelaria Aragão / José Pinto de Aragão	Artes gráficas em geral e objetos para escritório. Impressos em alto relevo	Santos	Santista Edition of "Carteira Comercial Paulista para 1949"; Contact info: "Telefone 2-6860. Filial: Rua D. Pedro II, 24. Telefone 2-5111. Caixa postal, 470"
Ledger #0142 - Cash flow (1949-1955)	Tipografia Ipiranga / Moreira & Moreira Ltda.		Santos	Glued seal; Contact info: "Telefone, 6534. Caixa postal, 456"; Note: "Para obter um livro igual, pedirá o N. 473 com 150 fls."
Ledger #0144 - General journal accounting & Daybook, (1950)	Tipografia Atlantica / Irmãos Borowski	Grande sortimento de artigos para escritorio. Encadernação. Douração. Pautaço. Impressos em geral	Santos	Santista Edition of "Carteira Comercial Paulista para 1950"; Contact info: "Telefone 2-6890"
Ledger #0145 - Cost accounting, Ibicaba farm (1950-1953)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Encadernação, pautaço, douração, objetos para escritorio, etc.	Santos	Glued seal; Contact info: "Fones, 2985 e 6849. Caixa, 37"; Note: "Para obter um livro igual indicar o N. 482 Fls. 100"
Ledger #0147 - General journal accounting & Daybook (1951)	Gato Preto / Siqueira			"Agenda Siqueira para 1951". "Gato Preto" Trademark
Ledger #0148 - General journal accounting & Daybook (1952)	Vera Cruz - Marca Registrada / Tipografia São Paulo Ltda.	Pautaço. Encadernação. Fabrica de livros em branco. Completo sortimento de Artigos para escritório	Santos	Contact info: "Telefone, 2-5744"; Note on modern equipment for expedited typographical works

Ledger #0149 - General journal accounting & Daybook (1953)	Tipografia Atlantica / Irmãos Borowski	Impressos em geral. Impressos em alto relevo. Encadernação. Artigos escolares. Objetos para presentes. Caixas de papeis fantasia. Pastas de couro. Alburns para fotografia	Santos	Santista Edition of "Caderneta Comercial para 1953"; Contact info: "Fone 2-6890"
Ledger #0150 - Cost accounting (1953-1957)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Encadernação, pautação, douração, objetos para escritorio, etc.	Santos	Glued seal; Contact info: "Fones, 2-2985 e 2-6849. Caixa, 37"; Note 01: "Para obter um livro igual indicar o N. 482 Fls. 100" Annotations on the seal: "g b" "1 ano" B. 10125
Ledger #0151 - Coffee harvest registries (1953-1966)	Tipografia Ipiranga / Moreira & Moreira Ltda.		Santos	Glued seal; Contact info: "Telefone, 2-6534. Caixa Postal, 456"; Note: "Para obter um livro igual, pedirá o N. 3172 com 100 fls."
Ledger #0152 - General journal accounting & Daybook (1954)	Tipografia Atlantica / Irmãos Borowski	Impressos em geral. Impressos em alto relevo. Encadernação e artigos escolares. Objetos para presentes. Caixas de papeis fantasia. Pastas de couro. Alburns para fotografias	Santos	Santista Edition of "Caderneta Comercial para 1954 - IV Centenário de São Paulo"; Contact info: Fone, 2-6890"
Ledger #0153 - General journal accounting & Daybook (1955)	Vera Cruz - Marca Registrada / Tipografia Carvalho Ltda.	Papelaria	Santos	"Vera Cruz" Trademark
Ledger #0154 - Cash flow (1955-1960)	Tipografia Ipiranga / M. H. Moreira & Cia. Ltda.	Artes gráficas. Artigos para escritório	Santos	Glued seal; Contact info: "Caixa postal 456. Telefone 2-6534"; Note: "N. 473 Fl. 150. C. pm/mx. V. 150"
Ledger #0155 - General journal accounting & Daybook (1956)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Objetos de escritório. Importação Direta. Encadernação, Douração, Pautação. Livros em branco	Santos	Contact info: "Telefones 2-2985 e 2-6849. Caixa, 37"
Ledger #0156 - General journal accounting & Daybook (1957)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Objetos de escritório. Importação Direta. Encadernação, Douração, Pautação. Livros em branco	Santos	Contact info: "Telefones 2-2985 e 2-6849. Caixa, 37"
Ledger #0157 - Cost accounting (1957-1960)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Encadernação, Pautação, Douração, Objetos para escritorio, Etc.	Santos	Glued seal; Contact info: "Fones, 2-2985 e 2-6849. Caixa, 37"; Note: "Para obter um livro igual indicar o N. 502 Fls. 100". Annotations on the seal: "Proced. g. c/ ges;" "1 ano". B. 25998.

Ledger #0158 - General journal accounting & Daybook (1958)	Tipografia e Papelaria Brasil / Acacio de Oliveira Leite	Impressos em Geral. Pautação e Encadernação. Papeis de todas as qualidades. Artigos para Escritorios	Santos	Santista Edition of "Caderneta Comercial para 1958"; Contact info: "Telefones, 2-2985 e 2-6849. Caixa Postal, 37"
Ledger #0161 - General journal accounting & Daybook (1960)	RL Marca Registrada / Rothschild Loureiro & Cia. Ltda.	Caderno Escolar Paulistano. Paulista. Paulistinha. Paulistano	São Paulo	"Carteira Comercial Paulista para o ano de 1960". Contact info: "Fones: 32-1181 - 34-8202. Caixa Postal 8007"
Ledger #0164 - General journal accounting & Daybook (1961)	Vera Cruz - Marca Registrada			
Ledger #0166 - General journal accounting & Daybook (1962)	Vera Cruz - Marca Registrada			
Ledger #0169 - General journal accounting & Daybook (1963)	Vera Cruz - Marca Registrada			
Ledger #0170 - Cost accounting (1963-1969)	Tipografia Carvalho Ltda.	Fabrica de Livros em Branco	Santos	Glued seal; Contact info: "Telefones 2-5929 e 2-8778. Oficinas e Depósito: Rua D. Pedro II, N. 79"; Note: "Para obter um livro igual cite o N. 403"
Ledger #0171 - General journal accounting & Daybook (1964)	Vera Cruz - Marca Registrada			
Ledger #0173 - General journal accounting & Daybook (1965)	Tipografia e Papelaria Brasil / Accacio de Oliveira Leite & Cia Ltda.	Impressos em geral. Pautação e Encadernação. [?] de todas as qualidades. Artigos para escritórios	Santos	Santista Edition of "Carteira Comercial Paulista para o ano de 1965"; Contact info: "Telefones, 2-2985 e 2-6849. Caixa Postal, 37"
Ledger #0174 - General journal accounting & Daybook (1966)	Tipografia e Papelaria Brasil / Accacio de Oliveira Leite & Cia Ltda.	Impressos em geral. Pautação e Encadernação. [?] de todas as qualidades. Artigos para escritórios	Santos	Santista Edition of "Carteira Comercial Paulista para o ano de 1966"; Contact info: "Telefones, 2-2985 e 2-6849. Caixa Postal, 37"
Ledger #0175 - General journal accounting & Daybook (1967)	RL Marca Registrada / Rothschild Loureiro & Cia. Ltda.			"Agenda Constitucional para o ano de 1967"
Ledger #0176 - General journal accounting & Daybook (1968)	RL Marca Registrada / Rothschild Loureiro & Cia. Ltda.	Paulista. Paulistinha. Constitucional. Roteiro. Produção. Sideral. Normalista. Miniaturas		"Carteira Comercial Paulista para o ano de 1968"
Ledger #0178 - General journal accounting & Daybook (1969-1970)	RL Marca Registrada / Rothschild Loureiro & Cia. Ltda.	Paulista. Paulistinha. Constitucional. Roteiro. Produção. Sideral. Normalista. Miniaturas. Agendas. Blocos e Cadernos		"Carteira Comercial Paulista para o ano de 1969"

Ledger #0179 - Cost accounting (1969-1972)	Tipografia Carvalho Ltda.	Fábrica de Livros em Branco	Santos	Glued seal; Contact info: "Telefone 5929"; Annotation: "c/ rina [?]; Note: "Para obter um livro igual cite o N. 401"
Ledger #0180 - General journal accounting & Daybook (1970-1971)	RL Marca Registrada / Rothschild-Loureiro Ltda.		São Paulo	"Carteira Comercial Paulistinha para o ano de 1970"; Contact info: "End. Teleg: <ROTHSCHILD>. Tels. 227-0212 e 227-4718. Caixa Postal 8007"
Ledger #0181 - General journal accounting & Daybook (1972)	RL Marca Registrada / Rothschild, Levi & Loureiro Ltda.		São Paulo	"Carteira Comercial Paulistinha para o ano de 1972"; Contact info: "End. Teleg: <ROTHSCHILD>. Tels. 227-0212 e 227-4718. Caixa Postal 8007"
Ledger #0182 - Cost accounting (1972-1977)	Tipografia Carvalho Ltda.	Fábrica de Livros em Branco	Santos	Glued seal; Contact info: "Telefone 5929"; Annotation: "c/ rina [?]; Note: "Para obter um livro igual cite o N. 401"
Ledger #0183 - Cost accounting (1974-1976)	Tipografia Carvalho Ltda.	Fábrica de Livros em Branco	Santos	Glued seal; Contact info: "Telefone 5929"; Annotation: "c/ tmima[?]; Note: "Para obter um livro igual cite o N. 401"
Ledger #0185 - Cost accounting (1976-1978)	Tipografia Carvalho Ltda.	Fábrica de Livros em Branco	Santos	Glued seal; Contact info: "Telefone 5929. Telefones 2-5929 e 2-8778. Oficinas e depósito: Rua D. Pedro II, n. 79"; Note: "Para obter um livro igual cite o N. 414-NTG"
PMLL #0003 - Daybook & Workers' checking accounts (1890)	Ao Livro Azul / A. B. de Castro Mendes & C.	Papelaria, Planos	Campinas	Firm's stamp
PMLL #0004 - List of households (1877-1890) & General journal accounting (1909-1911)	Baruel, Pauperio & Comp.	Livros em branco. Pautação. Encadernação.	São Paulo	Glued seal; Note: "Para outro egual dê o N. 174"
PMLL #0006 - Guestbook (1908-1945)	Wilhelm Büttel	Papier Lager. N. 109/0593. [?] Nel. [?] 150.		

Notes: (1) Only ledgers and books have been listed here, *i.e.* excluding the "Extra documents". (2) [Ledger #0044](#) contains one typographical seal that had not been identified during the execution of the *Ibicaba Project*. That information is added to this table, but is absent from the Project's metadata. (3) All data refer to ledgers from *Ibicaba*, unless otherwise explicitly stated.

Online Appendix - II

Accounting history of the Levy family in *Ibicaba* (1863-1871)

Data from ledger [Biblioteca Paulo M. Levy #0002](#). We compiled all entries from the households of Jacob Levy and of his eldest son in Brazil, Matthias Levy. Additional information on labor productivity for the cultivation of coffee groves and harvesting in 1870 are from a report on *Ibicaba* published by José Vergueiro in the newspaper [Correio Paulistano \(10/11/1870, pp. 1-2\)](#).

1. **Appendix Table II.1** - Annual balances of José Levy's household in *Ibicaba* (1863-1871)
2. **Appendix Table II.2** - Annual balances of Mathias Levy's household in *Ibicaba* (1868-1871)
3. **Table Appendix II.3** - Descriptive statistics on harvesting and nominal income, Levy households (1863-1871)
4. **Figure Appendix II.1** - Annual harvest series of the Levys: Volume (*alqueires*) and nominal income (*milréis*) from coffee harvesting in *Ibicaba* (1864-1871)
5. **Table Appendix II.4** - Other sources of income beyond coffee harvesting: Jacob Levy's household in *Ibicaba* (1864-1871)
6. **Table Appendix II.5** - Sources of expenditures of the Levys households in *Ibicaba* (1864-1871)
7. **Figure Appendix II.2** - Relative position of the Levys *vis-à-vis* other sharecroppers - *Ibicaba*, 1870

Appendix Table II.1 - Annual balances of José Levy's household in *Ibicaba* (1863-1871)

Month	Year	Content	Debt	Credit
Jacob Levy's household				
March	1863	Total	221.547	8.960
March	1864	Total	312.672	178.230
March	1864	Balance	134.442	
August/Sept	1865	Total	221.628	469.900
August/Sept	1865	Balance		248.272
March	1866	Total	22.100	485.780
March	1866	Balance		463.680
November	1866	Total	7.200	757.640
November	1866	Balance		750.440
May	1867	Balance ⁽¹⁾		600.000
June	1868	Total	62.800	1127.500
June	1868	Balance ⁽²⁾		1064.500
February	1869	Total	0.000	1302.368
February	1869	Balance		1302.368
October	1870	Total	2.400	1949.875
		Balance ⁽³⁾		1947.475
January	1871	Total	19.800	2353.537
January	1871	Balance ⁽⁴⁾		2332.737
November	1871	Total	2484.533	2484.533

Notes: (1) The source refers to a balance from November 1, 1866; that is most likely a mistake, as that balance had already been computed and the entry here corresponds to May 1867. (2) Accountant's error in the source (0.200 réis against the family); we transcribed the data as in the source and did not correct the values here. (3) Computed by the authors of this paper. (4) Accountant's error in the source (1.000 réis against the family); other accounting errors have been contemporaneously noticed and corrected.

Appendix Table II.2 - Annual balances of Mathias Levy's household in *Ibicaba* (1868-1871)

Month	Year	Content	Debt	Credit
Mathias Levy's household				
August	1868	Total	90.170	190.170
August	1868	Balance		100.000
March	1869	Total	185.740	185.740
March	1869	Balance ⁽¹⁾	0.000	0.000
July	1870	Total	357.440	357.440
July	1870	Balance		
January	1871	Total	112.400	124.950
January	1871	Balance		12.550
April-Sept.	1871	Total	58.150	58.150
April-Sept.	1871	Balance	0.000	0.000

Notes: (1) Mathias Levy kept almost always a perfectly balanced account by getting loans or receiving orders of payment on credit at the storehouse of Candido Valle, in Rio Claro (SP) County.

Table Appendix II.3 - Descriptive statistics on harvesting and nominal income, Levy households (1863-1871)

Variable	Mean	Std. Dev.	Min	Max
Harvest - Physical yields				
<u>Jacob Levy's household</u>				
Total harvest	508.156	238.306	166.000	864.250
Harvest pc (min)	93.474	43.168	27.667	144.042
Harvest pc (max)	78.866	36.384	23.714	123.464
<u>Mathias Levy's household</u>				
Total harvest	328.000	192.849	135.750	595.750
Harvest pc (min)	164.000	96.425	67.875	297.875
Harvest pc (max)	164.000	96.425	67.875	297.875
Harvest - Nominal income				
<u>Jacob Levy's household</u>				
Avg. harv. price	0.589	0.190	0.200	0.880
Harvest income (HH)	301.494	157.244	55.100	489.875
Harvest income (pc, min)	55.518	28.224	9.183	81.646
Harvest income (pc, max)	46.834	23.835	7.871	69.982
<u>Mathias Levy's household</u>				
Avg. harv. price	0.600	0.000	0.600	0.600
Harvest income (HH)	196.800	115.709	81.450	357.450
Harvest income (pc, min)	98.400	57.855	40.725	178.725
Harvest income (pc, max)	98.400	57.855	40.725	178.725

Notes: (1) N = (8,4) for the households of Jacob and Mathias Levy, respectively; (2.1) For Mathias Levy: Nuclear family after his wedding in 1867; (2.2): For Jacob Levy: Min until 1867 (inclusive) = (Jacob, Mathias, Maria, Simão, José, and Antônio), i.e. assuming that Babette Levy would have already passed away; (2.3) For Jacob Levy: Min as of 1868 (inclusive) = (Jacob, Maria, Simão, José, and Antônio), i.e. further excluding Mathias, who had then formed his own household; (2.4) For Jacob Levy: Max until 1867 (inclusive) = (Jacob, Babette, Mathias, Maria, Simão, José, and Antônio), i.e. assuming that Babette Levy was still alive.

Figure Appendix II.1 - Annual harvest series of the Levys: Volume (*alqueires*) and nominal income (*milréis*) from coffee harvesting in *Ibicaba* (1864-1871)

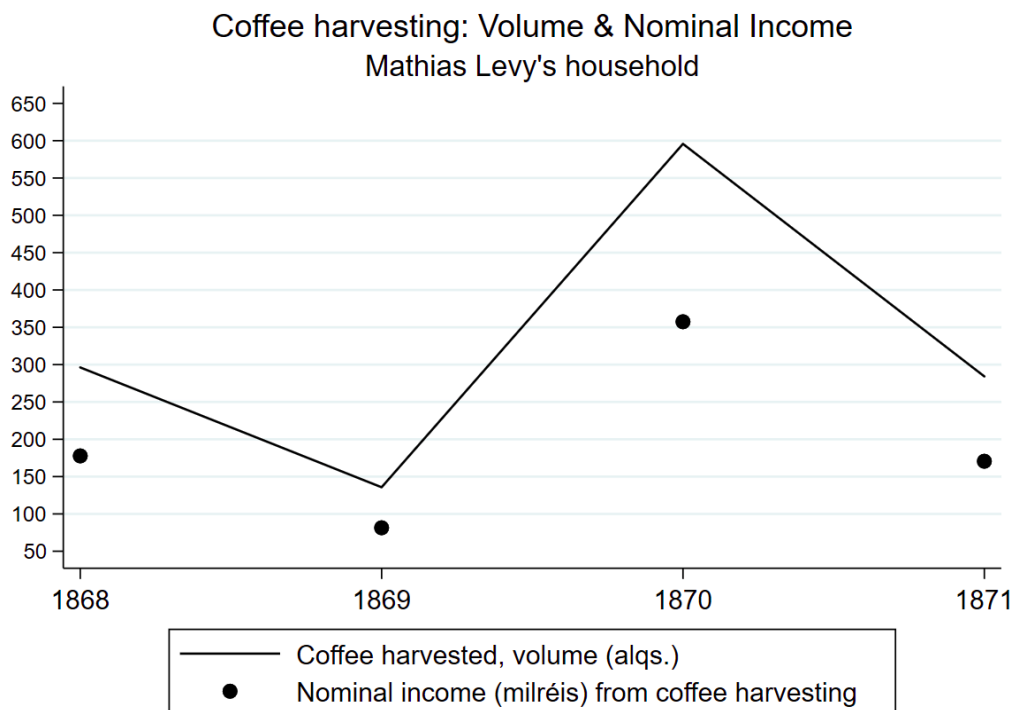
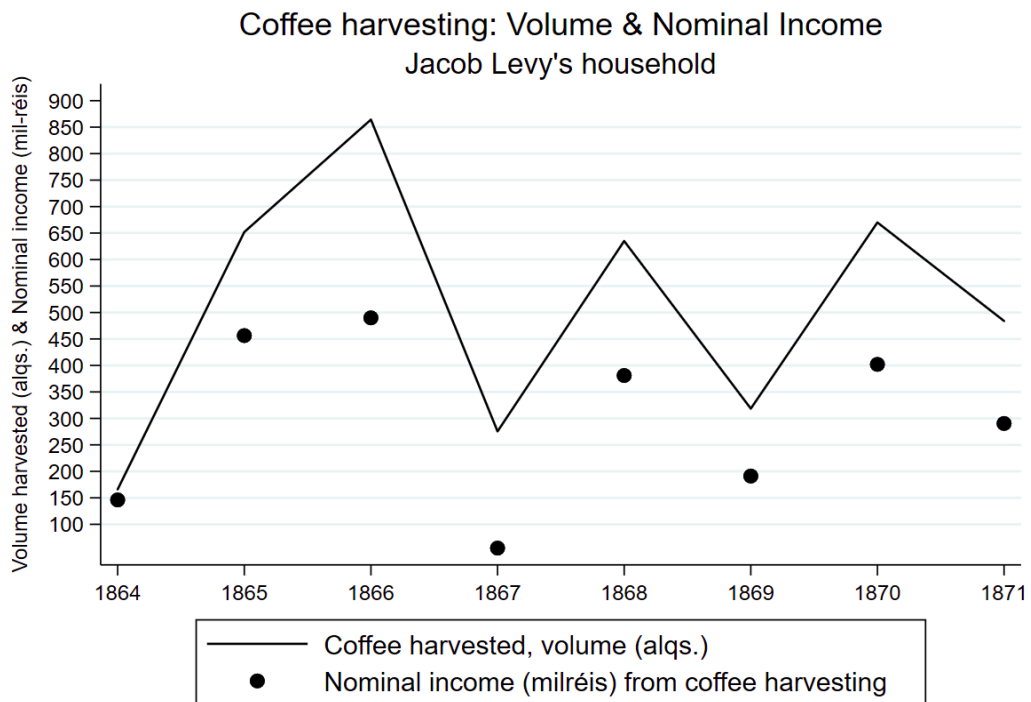


Table Appendix II.4 - Other sources of income beyond coffee harvesting: Jacob Levy's household in *Ibicaba* (1864-1871)

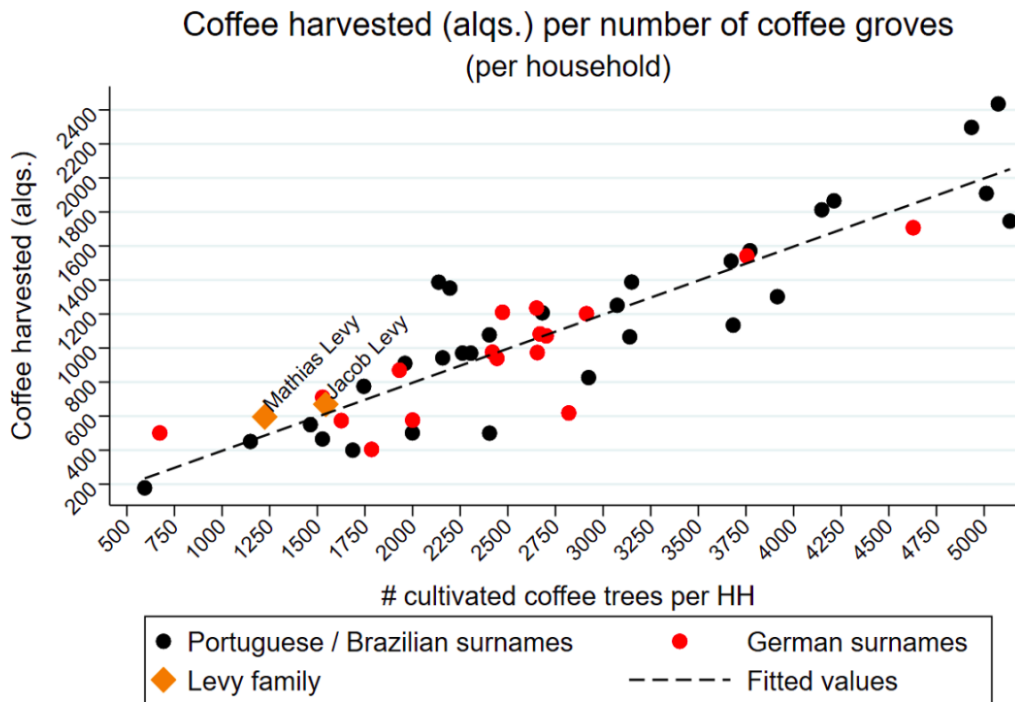
Year	Earnings (milréis)
<u>Hoeing coffee groves</u>	
1864	23.190
1865	13.500 ⁽¹⁾
<u>(Day) labor in road maintenance ⁽²⁾</u>	
1867	1.280
<u>Interest and bonuses on positive net balance</u>	
1864	9.935
1865	8.086
1866	41.593
1868	91.400
1869	56.768
1870	95.507
1871	217.788
<u>Credit perceived from other laborers' accounts ⁽³⁾</u>	
1870	187.270
<u>Commercial orders discounted against Jacob Levy's credit in <i>Ibicaba</i> ⁽⁴⁾</u>	
1871	-2482.133

Notes: (1) Corresponding to 675 coffee groves at 0.200 milréis each; (2) On the road to Rio Claro (SP) County; (3) 140.000 from J. B. Labÿ and 42.770 milréis from José (Illegible second name) d. Silva; (4) In clear preparation for leaving *Ibicaba*. Mathias Levy, in turn, earned 16.730 milréis in interest in total in 1868 and 1869; his positive net balances were netted out with commercial order over the storehouse of Candido Valle, in Rio Claro (SP) County, as discussed above.

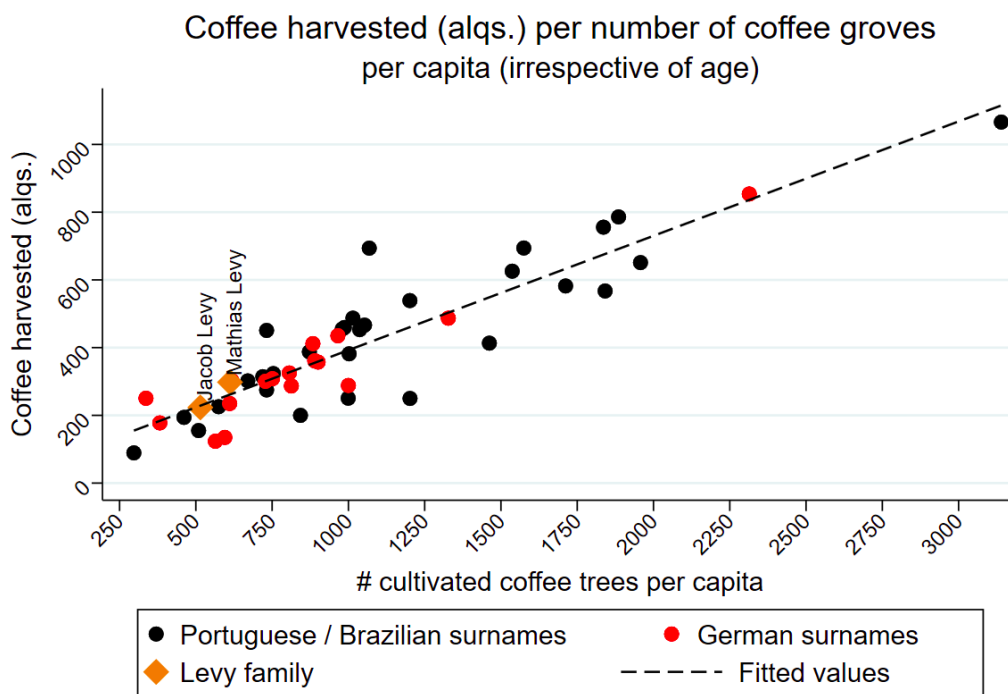
Table Appendix II.5 - Sources of expenditures of the Levys households in *Ibicaba* (1864-1871)

	Value (milréis)	Frequency
Jacob Levy's household		
<u>Cash withdraws</u>		Withdraws
1864	72.000	10
1865	34.000	5
1866	60.000	2
1867	100.440	1
<u>Coffee bought from the plantation</u>		<i>Alqueires</i> bought
1865	5.600	4
1866	5.600	4
1868	7.700	3
1870	2.400	5
1871	4.800	2
<u>House rents</u>		Payments
1865	6.000	1
1866	6.500	1
<u>Contribution to unspecified subscription</u>		Payments
1871	15.000	1
Mathias Levy's household		
<u>Cash withdraws</u>		Withdraws
1868	90.170	1
<u>Coffee bought from the plantation</u>		<i>Alqueires</i> bought
1870	4.800	2
1871	10.800	4.25
<u>Contribution to unspecified subscription</u>		Payments
1871	4.000	1
<u>Commercial orders & financial advancements w/ Candido Valle's storehouse (Rio Claro - SP)</u>		Orders
1869	285.740	2
1870	252.64	2
1871	143.2	2

Figure Appendix II.2 - Relative position of the Levys vis-à-vis other sharecroppers - *Ibicaba*, 1870



Fitted values: $harv_hat = -102.783 + 0.37 * trees + 54.13 * members$



Fitted values = $harv_pc_hat = 54.65 + 0.34 * trees_pc$

Notes: (1) Scatterplot of the cross-sectional volume of coffee harvested (*alqueires*) per number of coffee groves cultivated in the lean season, *Ibicaba* (1870). (2) Fitted lines correspond to estimates of regressions that control for the indicated independent variables; German surnames were not statistically significant and affected only the estimates of households' sizes. Households' age compositions are not informed in the source.

Data: [Correio Paulistano \(10/11/1870, pp. 1-2\)](#).

Online Appendix - III

[IDEP Partner Toolkit](#)'s suggestions and on-the-ground practices with regard to equipment for image capturing in the *Ibicaba Project*

Suggestions by IDEP Toolkit	Equipment used by <i>Ibicaba Project</i>	Evaluation of equipment used by the <i>Ibicaba Project</i>
<p style="text-align: center;">Camera body</p> <p style="text-align: center;">Nikon D810©</p>	<p style="text-align: center;">Camera body</p> <p style="text-align: center;">Nikon D810© (Refurbished)</p>	<p>Plus: Excellent performance for the type of object imaged (dimensions and material conservation). Optimal benefit per cost of a camera body refurbished by Nikon ©.</p> <p>Cons: Nikon© ceased its operations in Brazil as of 2017. This augments the risk of using the equipment if technical assistance is necessary.</p>
<p style="text-align: center;">Camera lenses</p> <p style="text-align: center;">60mm prime lens</p>	<p style="text-align: center;">Camera lenses</p> <p style="text-align: center;">Lens AF-S Micro Nikkor 60mm/2,8G© (Refurbished)</p>	<p>Idem as to the camera body (see above).</p>
<p style="text-align: center;">XRite Color Checker© reference target and software</p>	<p style="text-align: center;">XRite Color Checker© reference target and software</p>	
<p style="text-align: center;">Lighting kit</p> <p style="text-align: center;">Flash heads</p> <p style="text-align: center;">Charger + Battery pack & Extra batteries</p> <p style="text-align: center;">Case + lighting kit extension cables (x2)</p>	<p style="text-align: center;">Lighting kit ATEK©</p> <p style="text-align: center;">AT-450 Conjunto (Set) Shine 500 Flash Shine 500 (x2)</p> <p style="text-align: center;">Charger with battery (x2)</p> <p style="text-align: center;">Case + Network, Sync., and 12 volts (2m) cables</p>	<p>Pros: Perfectly adequate substitutions for the purposes of the <i>Ibicaba Project</i>.</p> <p>Cons: Given <i>Ibicaba farm's</i> stable connection to electricity, batteries proved unnecessary for this project and delayed capturing <i>vis-à-vis</i> electric-powered systems.</p>
<p style="text-align: center;">Softboxes</p> <p style="text-align: center;">Softboxes (x2) + Speedrings (Profoto) (x2)</p>	<p style="text-align: center;">Softboxes ATEK©</p> <p style="text-align: center;">Soft Light Strip - 140 x 35cm recessed (x2)</p>	<p>Pros: Perfectly adequate substitutions for the purposes of the <i>Ibicaba Project</i>. Speedrings were unnecessary.</p>
<p style="text-align: center;">Light stands</p> <p style="text-align: center;">Light stands (x2)</p>	<p style="text-align: center;">ATEK© Tripods</p> <p style="text-align: center;">Tripod Black III, w/ 3 sections (x2) Max. height = 2.50m Min height = 0.96m Weight = 2.9kg Male thread mount $\frac{3}{8}$</p>	<p>Pros: Perfectly adequate substitutions for the purposes of the <i>Ibicaba Project</i>.</p>

<p>Camera Tripod</p> <p>90-degree capable center column (Manfrotto© 190xPRO3)</p>	<p>Camera Tripod</p> <p>Tripod Hasse 3, without head; non-gearred column & threaded mount Max. height = 1.60 m Min. height = 0.58 m</p> <p>+ ATEK's© Articulated arm for camera tripod with vertical shooting adapter</p>	<p>Pros: Very robust tripod + articulated arm, which held well throughout the entire project.</p> <p>Cons: Difficult adjustment sensitivity of the tripod and articulated arm whenever the position of the camera had to be adjusted on the tripod.</p>
<p>Tripod Head</p> <p>Including quick release plate (Manfrotto© 410)</p>	<p>Tripod Head</p> <p>ATEK's© standalone master head ("Cabeça Master avulsa ATEK") w/ quick-release mount, 3-way movements for medium and small formats</p>	<p>Pros: Perfectly adequate substitutions for the purposes of the <i>Ibicaba Project</i>. No difficulty was found in handling it or positioning the camera.</p>
<p>Remote control for flashes</p> <p>Wireless remote to control the flash (Profoto)</p>	<p>Remote control for flashes</p> <p>Radio Flash Kit w/ 16 channels CT 16 (transmitter + receiver + P1/P2 cable + P1 to P10 adapter)</p>	<p>Pros: Perfectly adequate substitutions for the purposes of the <i>Ibicaba Project</i>.</p>
<p>Tethering cable</p> <p>USB3 cable for tethering to computer</p>	<p>Tethering cable</p> <p>3.0 USB cable for USB Micro</p>	<p>Pros: Cheaper market option than IDEP Toolkit's suggestion.</p> <p>Cons: Reduced transmission velocity.</p>
<p>Items for cleaning capturing equipment</p> <p>Microfiber cleaning cloths & Dust Removal</p>	<p>Items for cleaning capturing equipment</p> <p>Camera Cleaning Kit</p>	<p>Pros: Perfect replacements produced domestically</p>
<p>Softwares (Edition + Exports)</p> <p>Adobe Lightroom© or Darktable©</p>	<p>Softwares (Edition + Exports)</p> <p>Adobe Lightroom©</p>	<p>Pros: Monthly signature for the duration of the project.</p>
<p>Memory cards</p>	<p>External hard drives</p>	<p>Pros: In environments with unstable internet connections and limited storage capacity in laptops, offline capturing onto external HDs proved optimal. Tethered capturing allowed for saving images onto a plugged external HD.</p>

<p>Artist Tapes</p>	<p>Artist Tapes</p> <p>Pro Tape© Large clips</p>	<p>Pros: Tapes free of adhesive residues + large clips used to fix background cloth to the digitization table</p>
<p>Photographic backdrop</p> <p>No suggestion</p>	<p>Photographic backdrop</p> <p>Ideal Fundos Fotográficos© Photographic backdrop (black cloth)</p>	<p>Pros: Necessary for obtaining a homogeneous background across various digital objects.</p>
<p>Cases</p>	<p>Cases</p> <p>ATEK's© large carrying bag, w/ rectangular divider</p>	<p>Pros: Fundamental for the logistics of transporting peripheral and lighting equipment.</p>

Online Appendix IV

List of Annexes per Digital object in the *Ibicaba Collection*

The following is a complete list of all Annexes found in the *Ibicaba Collection*, separated by Digital object. The list is based on *Ibicaba Collection*'s metadata, but it shortens and homogenizes the controlled vocabulary of the latter to facilitate consultation.

Ledger #0001 - Workers' checking accounts & Laborers' payroll, Ibicaba farm (1889-1892)

1. Scrap of paper with arithmetic operations and data on payments to laborers in the Grammodo colony

Ledger #0002 - Daily workers' timesheet, Ibicaba farm (1890-1892)

1. Extra loose sheet with data on laborer's balance accounts

Ledger #0004 - Workers' checking accounts, Ibicaba farm (1890-1895)

1. Small calendar sheet (February 10, without year)

Ledger #0011 - Laborers' payroll, Ibicaba farm (1892-1896)

1. Handwritten sheet with payments for colonists and workers per piece rate or time worked (camaradas)
2. Sheet with summary of payments for colonists and camaradas
3. Handwritten sheet with the name of "Levy Camargo C." crossed out
4. Scrap of paper with arithmetic operations

Ledger #0013 - Coffee harvest registries, Ibicaba farm (1896-1901)

1. Scrap of paper with handwritten note
2. Scraps of paper with handwritten note on number of roof tiles and bricks in 1896
3. Calendar sheet for "October 12"

Ledger #0014 - Daily workers' timesheet, Ibicaba farm (1896-1899)

1. Loose sheet with watermark and arithmetic operations

Ledger #0016 - Laborers' payroll, Ibicaba farm (1897-1901)

1. Extra payroll sheet from 1897
2. List of students enrolled in the evening school of Ibicaba farm (May 1901), subscribed by Ms. Emilia Bueno (possibly the teacher) and addressed to Mr. Antonio Carlos de Held (possibly the administrator)
3. List of students in the school of Ibicaba farm in 1900, signed by Mr. Juvenal Mello (perhaps the teacher or administrator)
4. Scrap of paper with data from payrolls and arithmetic operations
5. Scrap of paper with data from payrolls and arithmetic operations
6. Scrap of paper with data from payrolls and arithmetic operations
7. Scrap of paper with information about age and nationality of three laborers

Ledger #0017 - Cash flow, Ibicaba farm (1898-1909)

1. Loose sheet: List of creditors and debtors (1907)

2. Scrap of paper with arithmetic operations
3. Loose sheet: Accounting notes of Ibicaba farm (undated)
4. Loose sheet: Balance sheet of Ibicaba farm (1907)
5. Scrap of paper with arithmetic operations
6. Scrap of paper with arithmetic operations
7. Accounting notes of Ibicaba farm, possibly written in Italian
8. Bills of sale in name of "Levy, Alvaro & Cia". for coffee transacted in Santos in March 1908
9. Bills of sale in name of "Levy, Alvaro & Cia". for coffee transacted in Santos in April 1908
10. Bills of sale in name of "Levy, Alvaro & Cia". for coffee transacted in Santos in May 1908

Ledger #0018 - Workers' checking accounts, Ibicaba farm (1899-1904)

1. Loose sheet (blank) with the daily timesheet for colonists in 1907
2. Loose sheet (blank) with the daily timesheet for colonists in 1907

Ledger #0020 - Current account (Accounting book of customers and commercial partners), Ibicaba farm & proprietors (1899-1906)

1. Scrap of paper
2. Loose sheet: short balance sheet between Simão Levy and "Levy & Irmão" (1902)

Ledger #0022 - Coffee harvest & Registries of processing and shipping, Ibicaba farm (1900-1911)

1. Extra sheet: "Relação dos cafés comprados por J. Levy & Cia.", November 1908
2. Scrap of paper with arithmetic operations
3. Scrap of paper with arithmetic operations
4. An impaired piece of paper

Ledger #0023 - Laborers' payroll, Ibicaba farm (1901-1906)

1. Handwritten note: payment and credit supplied (possibly to a colonist), stamped by "Levy & Irmão - Fazenda do Ibicaba / E. Cordeiro"

Ledger #0025 - Coffee harvest registries, Ibicaba farm (1902-1909)

1. Advertisement of the "rotating hay rake" from brand Vicon-Lely (Unavailable online due to technical problems, April 2026 - To be corrected)

Ledger #0027 - Workers' checking accounts, Ibicaba farm (1902-1905)

1. Receipt of the Municipal Chamber of Limeira to Mr. Francisco Joppe for payment of "road taxes" ("imposto de caminho"), 1905

Ledger #0029 - Registry of coffee trees assigned to laborers, Ibicaba farm (1905-1911)

1. Loose sheet with columns for statistical data

Ledger #0031 - Laborers' payroll, Ibicaba farm (1906-1917)

1. Loose sheet: "Payment to colonists ("Colonos") / Session / Demarchi [laborer's family name] / Morro Alto"

Ledger #0033 - Daily workers' timesheet, Ibicaba farm (1907-1909)

1. Extra page with arithmetic operations; watermark (not viewable in the photography) of "Forum Brasiliensis"

Ledger #0035 - Workers' checking accounts, Ibicaba farm (1908-1910)

1. Nominal index with 46 pages and covers were not added to the total number of pages of this metadata
2. Loose sheet with data on coffee bought by the administration of Ibicaba; months of August and September, but without the year

Ledger #0036 - Cash flow, Ibicaba farm (1909-1918)

1. Standard death certificate for registries in the farm
2. Handwritten note on types of postal items and their costs
3. Scrap of paper used as bookmark

Ledger #0038 - Current account (Accounting book of customers and commercial partners), Colonel José Levy (1909-1932)

1. Official notice on mortgage tax stamped by the Federal Tax Bureau in Cordeiro, 8 October 1919
2. Letter between Mr. João Consi [Couci/Cousi] and Colonel José Levy; in reference to mortgage transactions and Mr. Consi's balance at Ibicaba farm
3. Letter between Mr. João Consi [Couci/Cousi] and Colonel José Levy; in reference to mortgage transactions and Mr. Consi's balance at Ibicaba farm
4. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
5. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
6. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
7. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
8. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
9. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
10. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
11. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
12. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
13. Receipts handwritten and undersigned Mr. Joze Pereira de Mesquita in 1917-1918
14. Balance sheet of "Banco Commercial do Estado de São Paulo"
15. Scrap of paper with handwritten names and arithmetic operations
16. Letter sent from Santos on September 10, 1919, by Mr. Flaminio Levy to Colonel José Levy informing about turf shipments and real estate businesses in Rio de Janeiro
17. Balance sheet from "Sociedade Anonyma Levy" sent to Colonel José Levy (1926-1927) with the corresponding letter under the letterhead of "Sociedade Anonyma Levy / Santos / --";
18. Official bill of sale (stamped and with corresponding seals) of coffee bags shipped from Cordeiro to Santos in name of "Sociedade Anonyma Levy" (1930-1931)
19. Official bill of sale (stamped and with corresponding seals) of coffee bags shipped from Cordeiro to Santos in name of "Sociedade Anonyma Levy" (1930-1931)

20. Official bill of sale (stamped and with corresponding seals) of coffee bags shipped from Cordeiro to Santos in name of “Sociedade Anonyma Levy” (1930-1931)

21. Official bill of sale (stamped and with corresponding seals) of coffee bags shipped from Cordeiro to Santos in name of “Sociedade Anonyma Levy” (1930-1931)

(Note) This object contains 3 appendices that have not been shared online due to the personal nature of the content. These objects speak to private financial information. Please email meap@library.ucla.edu if there are questions.

Ledger #0039 - Workers' checking accounts, Ibicaba farm (1910-1912)

1. Blank piece of paper, possibly used as bookmark
2. Piece of paper, possibly used as bookmark, with arithmetic operations

Ledger #0040 - Coffee harvest registries, Ibicaba farm (1910-1921)

1. Extra sheet with handwritten data and arithmetic operations on its back
2. Extra sheet with handwritten data on the total amount and value of coffee harvested

Ledger #0042 - Current account (Accounting book of customers and commercial partners), Ibicaba farm (1911-1915)

1. Newspaper scrap with information about rural implements from firm Barros & Borges
2. Bill of purchase from "Casa Nova"
3. Bill of purchase from "Casa Nova"
4. Bill of purchase from "Casa Nova"
5. Bill of purchase from "Casa Nova"
6. Bill of purchase from "Casa Nova"

Ledger #0043 - Registry of coffee trees assigned to laborers, Ibicaba farm (1911-1921)

1. List of houses, number of rooms, and household heads in colonies Teteia, Grama Larga, Morro Alto, Lage, and Pão de Ló (undated).
2. List of coffee trees cultivated by households in Colônia Grande (1914-1915)
3. List of houses, number of rooms, and household heads in Colônia Grande (1917)
4. Survey of houses, number of rooms, and households heads of various colonies in Ibicaba (undated), incorrectly entitled “Lista das Casas Existente [SIC] na Colonia Grande” (undated)
5. List of coffee trees cultivated by households in colony Grama Larga (1914-1915).
6. List of coffee trees cultivated by households in colony Pão de Ló, with the indication of coffee trees treated under different remunerations (1919)
7. Survey of households in colony Pão de Ló (name of every household member, marital status, sex, age, and nationality) in 1919-1920
8. List of coffee trees cultivated by the farm’s administration itself (possibly not cultivated by colonists) in colony Pão de Ló (1919-1920)
9. Torn scrap of paper, probably used as a bookmark (Missing in MEAP’s metadata)

Ledger #0047 - Workers' checking accounts, Ibicaba farm (1913-1914)

1. Relatively new piece used as bookmarks (Not digitized)

Ledger #0049 - Daily workers' timesheet, Ibicaba farm (1914-1918)

1. Death certificate of Mr. Nicolau de Lima

Ledger #0054 - Laborers' payroll & List of households, Ibicaba farm (1917-1921)

1. Extra sheet with the payroll of laborers per piece rate (“empreiteiro”) for harvesting sugarcane in Saltinho (1919)
2. Fragment with the summary of payments for the 5th weeding/hoeing (undated)

Ledger #0056 - Cash flow, Ibicaba farm (1918-1927)

1. Financial balance of Ibicaba and Iracema farms for 1924
2. Financial balance of Ibicaba and Iracema farms for 1925 with a damaged header
3. Financial calculations in a letterhead of Levy & Irmão
4. Financial calculations in a letterhead of Levy & Irmão
5. Financial calculations in a letterhead of Levy & Irmão
6. Typed sheet with types of wood consigned by firm Lidgerwood & Co.
7. Financial calculations in a letterhead of Huberto Levy
8. Financial balance of Ibicaba and Iracema farms for 1927 in a letterhead of Levy & Irmão
9. Financial balance of Ibicaba farm for 1925
10. Note on creditors in 1927 in a letterhead of Levy & Irmão
11. Note on debtors in 1927 in a letterhead of Levy & Irmão
12. Financial balance of Ibicaba and Iracema farms for 1926 (crossed out)
13. Note on the reserve fund between 1923 and 1924

Ledger #0057 - Current account (Accounting book of customers and commercial partners), Ibicaba farm (1919-1924)

1. Nominal index with 60 pages and covers

Ledger #0058 - Summarized inventory & General journal accounting, Goyapá farm (1919-1926)

1. Newspaper's fragment about the buying of Goyapá farm in 1919
2. Data on the shipping of coffee production to Santos contained in a request from Mr. Flaminio Levy and Colonel José Levy to the Companhia Paulista de Estradas de Ferro
3. Loose sheet: Accounting note on production under the letterhead of “Huberto Levy”
4. Loose sheet: Accounting note on production under the letterhead of “Huberto Levy”
5. Loose sheet: Summary of an annual balance (undated)
6. Loose sheet: Typewritten letter from “Sociedade Anonyma Levy” to Colonel José Levy (1926)
7. Fragment of accounting information
8. Fragment of accounting information
9. Fragment of accounting information
10. Family letter from Santos to Colonel Levy (1926)
11. Handwritten report of Mr. Flaminio Levy about farm Goyapá (1925)
12. Handwritten report of Mr. Flaminio Levy about farm Goyapá (1925)
13. Typewritten report about farm Goyapá
14. Typewritten report about farm Goyapá
15. Municipal notes and receipts of tax payment for number of coffee trees, paid by Mr. Flaminio Levy (1919)

16. Municipal notes and receipts of tax payment for number of coffee trees, paid by Mr. Flaminio Levy (1920)
17. Municipal notes and receipts of tax payment for number of coffee trees, paid by Mr. Flaminio Levy (1920)
18. Municipal notes and receipts of tax payment for number of coffee trees, paid by Mr. Flaminio Levy (1920)

Ledger #0060 - Workers' checking accounts, Ibicaba farm (1921-1923)

1. Scrap of ledger sheet with names "José" and "Santos" identifiable in its verse and reverse
2. Loose sheet: "Partial report of profits and losses in 1943"
3. Loose sheet: Handmade map of Southeast Asia
4. Loose sheet: Fragment of a contract for the selling of eucalyptus

Ledger #0061 - Workers' checking accounts & Current account (Accounting book of customers and commercial partners), Ipiranga farm (1920-1930)

1. Number of coffee trees cultivated by the workers in Ipiranga farm (1929-1930)
2. Registry of coffee harvest in Ipiranga farm and its transactions with Ibicaba farm (1926)
3. Specification of coffee types harvested in Ipiranga farm (1926-1927)
4. Specification of coffee types harvested in Ipiranga farm (1927-1928)
5. Draft of a standard agricultural labor contract (1929-1930)
6. Loose sheet: payment statement to laborers in Ipiranga farm (1930)
7. Consignments of coffee sold to Colonel José Levy in name of "Sociedade Anônima Levy" (March 1929)
8. Consignments of coffee sold to Colonel José Levy in name of "Sociedade Anônima Levy" (March 1929)
9. Consignments of coffee sold to Colonel José Levy in name of "Sociedade Anônima Levy" (April 1929)
10. Payment statements to laborers in Ipiranga farm (January-February 1930)
11. Payment statements to laborers in Ipiranga farm (March-April 1930)
12. Payment statements to laborers in São Francisco farm (May 1936) (Missing in MEAP's metadata)

Ledger #0062 - Registry of coffee trees assigned to laborers, Ibicaba farm (1921-1931)

1. Scrap of paper with handwritten notes
2. Scrap of paper with handwritten notes
3. Scrap of paper with the letterhead "José Levy - / Cordeiro / Estado de S. Paulo / -.-" and heading "Fazenda Ibicaba, __ de ____ de 192_ [date]"

Ledger #0063 - Laborers' payroll, Ibicaba farm (1921-1931)

1. Typewritten list with the names of the voters who resided in Ibicaba (undated)
2. Handwritten notes on payments to laborers (undated)
3. Handwritten notes on payments to laborers (undated)
4. Handwritten notes on payments to laborers (undated)
5. Handwritten notes on payments to laborers (undated)

6. Bill of purchase from “Casa Capella” (1954)
7. Bill of purchase from “Casa Capella” (1954)

Ledger #0064 - Current account (Accounting book of customers and commercial partners), Ibicaba farm & proprietors (1922-1928)

1. Nominal index with 62 pages and covers
2. Letter to head of the train station regarding a package sent from São Paulo, under letterhead of “José Levy / Cordeiro / Estado de S. Paulo”, from “Fazenda Ibicaba” on May 07, 1929 (Missing in MEAP’s metadata)

Ledger #0065 - Daily workers' timesheet, Ibicaba farm (1922-1925)

1. Reminder about “mil-réis” banknotes to be retracted in 1925-1927
2. Schedule of trains from São Paulo (city), Araras, and Descalvado.
3. Nominal index with 44 pages and covers
4. Extra sheet originally put within the index: payment statement to laborers in the São Francisco and Ypiranga farms (1931)

Ledger #0069 - Workers' checking accounts, Iracema farm (1926-1930)

1. Typewritten sheet with data on the coffee trees cultivated by the workers (1929-1930)
2. Nominal index with 62 pages and covers

Ledger #0070 - Cash flow, Iracema farm (1925-1931)

1. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
2. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
3. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
4. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
5. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
6. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
7. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
8. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
9. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
10. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
11. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
12. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm

13. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
14. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
15. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
16. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
17. Typewritten sheets with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929 and 1930, Iracema farm
18. Handwritten scrap of paper referring to Mr. Mario Levy
19. Envelope with the printed name of firm “Bianchini & Quilici”

Ledger #0071 - Current account (Accounting book of customers and commercial partners), Iracema farm (1926-1937)

1. Loose sheet with handwritten notes about laborers’ payrolls

Ledger #0072 - Workers' checking accounts, São Francisco farm (1926-1937)

1. Nominal index with 62 pages and covers
2. Six sheets, bundled, with data on the number of coffee trees cultivated by laborers until February 1929 (handwritten), as well as in the crop years of 1929-1930, 1930-1931 (also including Ipiranga farm), and 1936-1937 (typewritten); at least three other sheets with similar content have been glued to the previous ones and could therefore not be digitized

Ledger #0076 - Cash flow, São Francisco farm (1929-1938)

1. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
2. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
3. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
4. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
5. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
6. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
7. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
8. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
9. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937

10. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
11. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
12. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
13. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937
14. Typewritten loose sheet with summaries of payments to colonists, workers per piece rate or time (“camaradas”), and other laborers in 1929, 1930, 1936, and 1937; detailed statistics on coffee production by the colonists in 1937, indicating value, weight harvested in “alqueires”, days worked and account balance

Ledger #0077 - Coffee harvest registries, Ibicaba farm (1929-1959)

1. Blank sheet with the letterhead of “Levy & Irmão – Estação de Cordeiro – / Estado de S. Paulo –” with the printed header “Fazenda de Ibicaba, __ de __ de 190_”
2. Blank sheet with the letterhead of “Levy & Irmão – Estação de Cordeiro – / Estado de S. Paulo –” with the printed header “Fazenda de Ibicaba, __ de __ de 190_”
3. Handwritten sheet with data on coffee sacks sent to Santos in name of Jacob Levy Netto between June and November 1906

Ledger #0078 - Coffee consignments, S/A Levy (1930-1931)

1. Bill of the “Serviço de Fiscalização do Café” (free translation: “Coffee Production Supervisory Office”), authorizing shipments in 1930
2. Bill of the “Serviço de Fiscalização do Café” (free translation: “Coffee Production Supervisory Office”), authorizing shipments in 1930

Ledger #0079 - Daily workers' timesheet, Ibicaba farm (1930-1932)

1. Sheet with a list of laborers and their timesheet (undated)
2. Loose sheet with a list of laborers and their timesheet (undated) was originally put on the coversheet

Ledger #0080 - Workers' checking accounts, Iracema farm (1930-1934)

1. Sheet with the distribution of coffee trees per household in 1932-1933 (possibly for other years as well, but without explicit identification)
2. Sheet with the distribution of coffee trees per household in 1932-1933 (possibly for other years as well, but without explicit identification)
3. Sheet with the distribution of coffee trees per household in 1932-1933 (possibly for other years as well, but without explicit identification)
4. Medical bill Dr. Sebastião de Barros, 1920
5. Medical bill Dr. Sebastião de Barros, 1920
6. Medical bill Dr. Alcides Prado, 1920

Ledger #0083 - Registry of coffee trees assigned to laborers, Ibicaba farm (1931-1943)

1. Extra pages with statistical summaries at the end of each crop year
2. Extra pages with statistical summaries at the end of each crop year
3. Extra pages with statistical summaries at the end of each crop year

4. Extra pages with statistical summaries at the end of each crop year
5. Extra pages with statistical summaries at the end of each crop year
6. Extra pages with statistical summaries at the end of each crop year
7. Extra pages with statistical summaries at the end of each crop year
8. Extra pages with statistical summaries at the end of each crop year
9. Extra pages with statistical summaries at the end of each crop year
10. Extra pages with statistical summaries at the end of each crop year
11. Extra pages with statistical summaries at the end of each crop year
12. Extra pages with statistical summaries at the end of each crop year
13. Extra pages with statistical summaries at the end of each crop year
14. Extra pages with statistical summaries at the end of each crop year
15. Extra pages with statistical summaries at the end of each crop year
16. Extra pages with statistical summaries at the end of each crop year
17. Extra pages with statistical summaries at the end of each crop year
18. Extra pages with statistical summaries at the end of each crop year
19. Extra pages with statistical summaries at the end of each crop year
20. Extra pages with statistical summaries at the end of each crop year
21. Extra pages with statistical summaries at the end of each crop year
22. Extra pages with statistical summaries at the end of each crop year
23. Extra pages with statistical summaries at the end of each crop year
24. Extra pages with statistical summaries at the end of each crop year
25. Drawn map, most likely from Colônia Grande; map includes not only the name of the household heads living in the colony, but also the location of the school, chapel, and the fiscal's house

Ledger #0084 - Workers' checking accounts, Ibicaba farm (1931-1933)

1. Certificate of inspection of the agricultural bookkeeping of Ibicaba, São Francisco, and Iracema farms, dated August 12, 1931
2. Much worn out photography depicts a group of unidentified people

Ledger #0085 - Laborers' payroll, Ibicaba farm (1931-1942)

1. Nominal index with 98 pages and covers
2. Loose sheet with data on payrolls from October 1941, signed by Mr. Edegar Levy
3. Newspaper's scrap used as a bookmark
4. Typewritten statistical summary of the number of coffee trees cultivated by colonists, separated per "section" (colony) in the Ibicaba farm for crop year 1927-1928
5. Typewritten statistical summary of the number of coffee trees cultivated by colonists "Section Pão de Lot"; sheet with the letterhead "Levy & Irmão * Estação de Cordeiro / Estado de São Paulo"
6. Typewritten statistical summary of the number of coffee trees cultivated by colonists "Sections Pinheiro e Saltinho" (1928); sheet with no letterhead
7. Typewritten statistical summary of the number of coffee trees cultivated by colonists for "Section Pão de Lot" (1928-1929)

8. Data on coffee cultivation in “Section Colônia Grande” for crop year 1926-1927; sheet with the letterhead “Levy & Irmão * Estação de Cordeiro / Estado de São Paulo”
9. Data on coffee cultivation in “Section Colônia Grande” for crop year 1928-1929; sheet with no letterhead
10. Data on coffee cultivation in “Section Gramma Larga” in crop year 1927-1928; sheet with the letterhead “Levy & Irmão * Estação de Cordeiro / Estado de São Paulo”
11. Data on coffee cultivation in “Section Gramma Larga” for crop year 1928-1929; sheet with no letterhead
12. Handwritten notes on coffee production in Saltinho colony; sheet with the letterhead “Levy & Irmão * Estação de Cordeiro / Estado de São Paulo”
13. Standard labor contract offered to the colonists of Ibicaba farm for the crop year 1929-1930 (typewritten)
14. Handwritten letter in name of “Levy & Irmão” and of Mr. José Levy addressed to Mr. João Oliveira Campos, Station Master; the letter authorized Mr. Oliveira Campos to issue receipts for orders/packages arrived at the station (possibly Cordeiro or Limeira); letter from March 10, 1916
15. Payrolls for colonists; sheet with the letterhead “H. Levy & Cia.” (1941)
16. Payrolls for colonists; sheet with the letterhead “H. Levy & Cia.” (1941)
17. Typewritten statistical summary of cotton production sold to “J. Cassab & Cia.”

Ledger #0086 - Workers' checking accounts & Nominal ledger, Ibicaba farm (1931-1942)

1. Loose sheet with a cash flow (undated)

Ledger #0087 - Coffee processing registries, Ibicaba farm (1931-1944)

1. Scrap of paper with notes about the processing of coffee in 1944, with arithmetic operations on its back

Ledger #0088 - Coffee consignments, S/A Levy (1932-1939)

1. Business card of “Cia Aliança de Armazens Geraes” with the penciled notes: “DNC, e DNC2” and “Jafet – Ypiranga”

Ledger #0089 - Current account (Accounting book of customers and commercial partners), Colonel José Levy (1932-1938)

1. Deposit receipt of “Banco Commercial do Estado de São Paulo” (1933)
2. Deposit receipt of “Banco Commercial do Estado de São Paulo” (1936)
3. Handwritten note about the rent collection of houses in Limeira (1931-1933)
4. Handwritten note about the time worked and the harvest of beans of three laborers (undated), with arithmetic operations on its back
5. Sheet with donation registries under the header of “Huberto Levy / Engenheiro/ -- / Cordeiro – C.P.”, 1932-1934
6. Sheet with donation registries under the header of “Huberto Levy / Engenheiro/ -- / Cordeiro – C.P.”, 1932-1934
7. Bill of purchase from “Casa Castellano” (1933)
8. Bill of purchase from “Casa Castellano” (1933)

9. Bill of purchase from “Casa Castellano” (1933)
10. Bill of purchase from “Casa Castellano” (1933)
11. Bill of purchase from “Casa Castellano” (1933)
12. Bill of purchase from “Casa Castellano” (1933)
13. Bill of purchase from “Casa Fortunato Lucato” (1933)
14. Handwritten note about dressmaking
15. Bill of purchase from “Casa Allemã” (undated)
16. Handwritten note about building materials (undated)
17. Payroll sheet of laborers in 1938, with 8 sheets in total
18. Scrap of paper with arithmetic operations
19. Bill of purchase from “Santo Antonio” pharmacy (1933)

Ledger #0090 - Current account (Accounting book of customers and commercial partners), Ibicaba farm and proprietors (1932-1939)

1. Scrap of paper informing about the importing of two oil cans; firm “Citrus Limitada”
2. Typewritten sheet with the license plates of the automobiles of the farm
3. Loose sheet containing handwritten and typewritten accounting data (undated), mostly about laborers

Ledger #0093 - Registry of coffee trees assigned to laborers, Iracema farm (1934-1935)

1. Handwritten notes with production and remuneration (referring to the household of Luiz Gazella)
2. Handwritten notes with production and remuneration (referring to the household of Antonio Santo Andrea)
3. Handwritten notes with production and remuneration (referring to the household of Victorio Andrieta)
4. Handwritten notes with production and remuneration (referring to the household of Alpino Garcia)
5. Handwritten notes with production and remuneration (referring to the household of David Barosso)
6. Handwritten notes with production and remuneration (referring to the household of Christiano Scherrer)
7. Handwritten notes with production and remuneration (referring to the household of Victorio Pedronetti)
8. Handwritten notes with production and remuneration (referring to the household of José Buol)
9. Handwritten notes with production and remuneration (referring to the household of Antonio Lins)
10. Scrap of paper with handwritten arithmetic operations

Ledger #0094 - Stockfarming registries, Ibicaba farm (1934-1939)

1. Loose sheet with arithmetic operations
2. Loose sheet with arithmetic operations
3. Note under the letterhead of "José Levy"

Ledger #0095 - Cash flow, Ibicaba farm (1934-1939)

1. Nominal index starting the ledger itself, with 48 blank pages

Ledger #0099 - Registry of coffee trees assigned to laborers, Colônia Grande in Ibicaba farm (1936-1941)

1. Loose sheet with summary of the coffee trees distributed to workers in 1936-1937

Ledger #0102 - Cash flow & Crops registry, Ibicaba farm (1937-1943)

1. Loose sheet with arithmetic operations

Ledger #0104 - General balance sheet & General journal accounting, Santa Marina farm (in Tatuí) (1938)

1. Typewritten sheets (mirrored) with the general balance sheet for December 1938, Santa Marina farm
2. Typewritten sheets (mirrored) with the general balance sheet for December 1938, Santa Marina farm

Ledger #0105 - Inventory, Ibicaba farm (1938-1939)

1. Sheet number 103 (blank) from another accounting ledger attached to this ledger

Ledger #0106 - Daily workers' timesheet, Ibicaba farm (1938-1940)

1. Loose sheet with ink blots

Ledger #0107 - Registry of coffee trees assigned to laborers & Piece-rate tasks, Ibicaba farm (1935-1940)

1. Handwritten sheet with distribution of coffee trees to laborers of the São Francisco farm for 1936-1937 crop year
2. Typewritten sheet with the distribution of coffee trees to laborers of the Iracema farm for 1936-1937 crop year
3. Handwritten note about the coronation of orange trees by Mr. Gilberto Famene

Ledger #0108 - Workers' checking accounts, Ibicaba farm (1938-1942)

1. Scrap of paper used as a bookmark, blank (Not digitized)
2. Scrap of paper used as a bookmark, blank (Not digitized)
3. Scrap of paper used as a bookmark, with arithmetic operations
4. Scrap of paper used as a bookmark, with the name "Alberto Zanetti"

Ledger #0109 - Crops registry & Nominal ledger, Ibicaba farm (1938-1943)

1. Blank sheet
2. Blank sheet
3. Certificate of "Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas" referring to the purge and value of purity of cotton seeds in 1938
4. Certificate of "Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas" referring to the purge and value of purity of cotton seeds in 1938

5. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
6. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
7. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
8. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
9. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
10. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
11. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
12. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
13. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1939
14. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940
15. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940
16. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940
17. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940
18. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940

19. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1940
20. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
21. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
22. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
23. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
24. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
25. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
26. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
27. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
28. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
29. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
30. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1941
31. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
32. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942

33. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
34. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
35. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
36. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
37. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
38. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
39. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
40. Certificate of “Instituto Agronômico do Estado de S. Paulo / Serviço Científico do Algodão / Campinas” referring to the purge and value of purity of cotton seeds in 1942
41. Handwritten scrap of paper with arithmetic operations
42. Penciled draft with data on agricultural production
43. Scrap of paper possibly used to avoid the dropping of ink between pages
44. Sheet with the pedigree of pure-bred swine sold by the “Santo Amaro” farm (located in the station Morro Grande of the railroad line Paulista) to Dr. Huberto Levy in 1942
45. Penciled draft with farm’s capital
46. Complete accounting ledger signed by Dr. Huberto Levy with general balance of a farm’s capital on April 01, 1941. Property neighboring Ibicaba bought by Dr. Huberto Levy from Mr. Sebastião Monteiro
47. Complete accounting ledger signed by Dr. Huberto Levy with answers to an agricultural questionnaire; January 15, 1942. Property neighboring Ibicaba bought by Dr. Huberto Levy from Mr. Sebastião Monteiro

Ledger #0110 - Daybook & Harvest registries, Ibicaba farm (1938-1965)

1. Newspaper clipping
2. Handwritten scrap of paper with notes about the harvesting of maize (possibly from 1965)
3. Paper strip possibly used as bookmark
4. Paper strip possibly used as bookmark

Ledger #0111 - Nominal ledger, Ibicaba farm (1939-1940)

1. Trial balance for 1939, typewritten and stamped by "H. Levy & Cia. Fazenda Ibicaba - Cordeiro"

Ledger #0114 - Current account (Accounting book of customers and commercial partners), Ibicaba farm (1939-1943)

1. Typewritten current account of H. Levy & Cia. with Cordeiro's District Council ("Sub-prefeitura") in 1939-1940
2. Typewritten registry of payment to crop-sharing laborers in cotton production by third part ("terceiros")
3. Deposit slip in the Banco Commercial do Estado de Sao Paulo in 1943 (Not digitized)
4. Deposit slip in the Banco Commercial do Estado de Sao Paulo in 1943 (Not digitized)
5. Deposit slip in the Banco Commercial do Estado de Sao Paulo in 1943 (Not digitized)
6. Sheet with header for 1940s, with manuscript notes on its verso
7. Typewritten transactions in 1942 with the "Usinas de Beneficio de Algodão, Café e Arrôz [/] J. Cassab & Cia. Ltda.", with arithmetical operations on the back
8. Bill of purchase from "Machina Central, Beneficio de Arroz e Moinho de Fubá – Manoel Baraldo" (without date)
9. Bill of purchase from "Machina Central, Beneficio de Arroz e Moinho de Fubá – Manoel Baraldo" (1942)
10. Handwritten scrap of paper (in pen) with notes about transactions and service provisions by Mr. Manoel Baraldo
11. Handwritten scrap of paper (in red pencil) with notes about transactions and service provisions by Mr. Manoel Baraldo
12. Note of Credit-Cash Flow ("Credite – Caixa") in name of Mr. Huberto Levy (without date)
13. Bill of purchase number 001 of H. Levy & Co. in the "Machina Central, Beneficio de Arroz e Moinho de Fubá – Manoel Baraldo"

Ledger #0115 - Cash flow, Ibicaba farm (1940-1943)

1. Record sheet of firm "H. Levy [-] Cordeiro" from the 1940s, with arithmetic operations

Ledger #0117 - Nominal ledger, Ibicaba farm (1940-1943)

1. Copy of the bulletin of the "Associação Comercial de Limeira" (1942), with the name "Srs. H. Levy & Cia." typewritten in red

Ledger #0118 - Inventories & General balances, Ibicaba farm (1940-1943)

1. Typewritten document with list of laborers and their balances, current accounts of the farm, inventory, general balance, and trial balance (1942)

Ledger #0119 - Workers' checking accounts, Ibicaba farm (1941-1943)

1. Newspaper "Correio Agro-Pecuário", Number 267 (February 1975), addressed to "Levy, Flaminio [/] Ibicaba [/] 13190 - Cordeiropolis - SP"
2. Piece of blank paper used as a bookmark
3. Piece of blank paper used as a bookmark
4. Piece of blank paper used as a bookmark

Ledger #0120 - Nominal ledger & Daybook, Ibicaba farm (1941-1947)

1. Scrap of paper used as a bookmark

Ledger #0121 - Pigsty registries, Ibicaba farm (1939-1945)

1. Index with the names of pigs
2. Sheet with animal names
3. Sheet with animal names
4. Sheet with animal names

Ledger #0124 - Cash flow (blank, stamped) (1944)

1. Short letter of Dr. Huberto Levy (under his letterhead and signed by him) to Mr. Flaminio Levy, dated December 19, 1944
2. Scrap of paper with the name "Bender" and its address in São Paulo

Ledger #0127 - Daybook, Ibicaba farm (1944-1947)

1. Extra sheet glued to page 12
2. Piece of paper with manuscript notes

Ledger #0128 - Cash flow, Ibicaba farm (1944-1947)

1. Piece of blank used as a bookmark

Ledger #0129 - Stamp duty registry (1945-1948)

1. Summary bill with sales and consignations (1948)
2. Duty registry of Federal Tax Collection (1945)

Ledger #0132 - General journal accounting & Daybook, Ibicaba farm (1947)

1. Scrap of paper used as a bookmark, with handwritten notes
2. Scrap of paper used as a bookmark, blank

Ledger #0133 - Cash flow, Ibicaba farm (1947-1949)

1. Newspaper scrap from October 20, 1983, with advertisement of "H. Levy Vieira Pereira Lopes & Associados"

Ledger #0137 - Cost accounting, Ibicaba farm (1948-1950)

1. Bill of purchase from pharmacy "Santo Antonio de José Moreira" (1950), with two sheets

Ledger #0139 - Stamp duty registry (1949-1952)

1. Duty registry for the Corn Flour Mill of the Ibicaba farm
2. Duty registry for the Pottery of the Ibicaba farm

Ledger #0140 - General journal accounting & Daybook, Ibicaba farm (1949)

1. Piece of paper glued to the back cover with a bill referring to the "Central Electrica"
2. Sales note of one pig
3. Business card of Prof. Maria Zilda Silveira Fonseca
4. Bill of purchase from "Angelo J. Mazutti" carpentry (1950)
5. Sheet with one single value handwritten
6. Payment letter referring to laborer Antonio Barbalto (1950)
7. Payment letter referring to laborers Waldemar Zanetti (1950)

Ledger #0142 - Cash flow, Ibicaba farm (1949-1955)

1. Newspaper scrap with the floor plan for a "small house"
2. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
3. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
4. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
5. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
6. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
7. Typewritten notes about the delivery of corn to Ruy Barboza de Oliveira, in Limeira (1951)
8. Scrap of paper with handwritten notes
9. Scrap of paper with handwritten notes

Ledger #0143 - Current account, Levy S.A. (Accounting ledger of banks) (1949-1961)

1. Typewritten letter of Banco Cruzeiro do Sul de São Paulo referring to its transfer to a subsidiary of Banco Artur Scatena S.A.
2. Drawing of Ibicaba's clock tower

Ledger #0145 - Cost accounting, Ibicaba farm (1950-1953)

1. Piece of paper with agricultural machines and prices

Ledger #0146 - Current account, family Levy (1950-1960)

1. Bill of purchase from agricultural shop "Bertolini & Corte"
2. Receipt of land taxes (1958)
3. Receipt of land taxes (1959)
4. Receipt of land taxes (1959)
5. Bill of purchase from "Armazém do Povo"
6. Bill of purchase from "Armazém do Povo"
7. Scrap of paper with arithmetic operations and the name of Mr. Ecio Carandina used to bookmark that person's account in the ledger
8. Handwritten list in name of Mr. Pedro Hespagnol, possibly referring to the purchasing of coffee in 1959
9. Handwritten list of eucalyptus trees
10. Copy of contract between Mr. Flaminio Levy and Mr. José Covre for the planting of eucalyptus trees
11. Tag of road transport referring to Ibicaba and São Francisco farms
12. Tag of road transport referring to Ibicaba and São Francisco farms
13. Tag of road transport referring to Ibicaba and São Francisco farms
14. Tag of road transport referring to Ibicaba and São Francisco farms
15. Tag of road transport referring to Ibicaba and São Francisco farms
16. Tag of road transport referring to Ibicaba and São Francisco farms

17. Tag of road transport referring to Ibicaba and São Francisco farms

18. Tag of road transport referring to Ibicaba and São Francisco farms

Ledger #0148 - General journal accounting & Daybook, Ibicaba farm (1952)

1. Scrap of paper with arithmetic operations used as a bookmark

Ledger #0149 - General journal accounting & Daybook, Ibicaba farm (1953)

1. Handwritten scrap of paper used as a bookmark

Ledger #0150 - Cost accounting, Ibicaba farm (1953-1957)

1. Loose sheet with handwritten data on agricultural production (coffee, wood, cotton etc.) and their monetary values

Ledger #0151 - Coffee harvest registries, Ibicaba farm (1953-1966)

1. Blank receipt of the “Fazenda Ibicaba – Flamínio Levy” corn flour mill, with handwritten notes on its back
2. Scrap of paper with handwritten notes
3. Scrap of paper with handwritten notes
4. Scrap of paper with handwritten notes

Ledger #0152 - General journal accounting & Daybook, Ibicaba farm (1954)

1. Bill issued by Waldemar Guadagni referring to saddlery services
2. Bill of purchase from "Casa Stocco"

Ledger #0153 - General journal accounting & Daybook, Ibicaba farm (1955)

1. Bill of purchase of sand from "Santa Luzia", in Limeira
2. Bill of purchase of sand from "Santa Luzia", in Limeira
3. Bill of purchase of sand from Rio Claro

Ledger #0154 - Cash flow, Ibicaba farm (1955-1960)

1. Handwritten note with arithmetic operations and the name of Antonio Barbato (1960)
2. Handwritten timesheet of daily laborers from September 1964
3. Loose sheet with handwritten arithmetic operations

Ledger #0155 - General journal accounting & Daybook, Ibicaba farm (1956)

1. Handwritten note with debt and credit entries, possibly from a laborer
2. Handwritten note
3. Handwritten note with stamp of the firm “Lavoura Quimica K. J. Hering”, from Limeira
4. Bill of purchase from “Farmavet”, São Paulo
5. Bill of purchase from “Armazem Prada de J. Franceschi & Cia.”, Limeira
6. Note from Ibicaba’s workshop

Ledger #0156 - General journal accounting & Daybook, Ibicaba farm (1957)

1. Typewritten note of payment to “Companhia Paulista de Estradas de Ferro”
2. Typewritten note about milk sold to Ms. Vera da Vinha
3. Bill of purchase from “Cooperativa Popular de Consumo Cordeirópolis Limitada”

Ledger #0157 - Cost accounting, Ibicaba farm (1957-1960)

(Note) This object contains an appendix that has not been shared online due to the personal nature of the content. This object speaks to official and personal data of a worker. Please email meap@library.ucla.edu if there are questions.

Ledger #0158 - General journal accounting & Daybook, Ibicaba farm (1958)

1. Handwritten list of vegetables and fruits,
2. Bill of purchase from “Companhia Industrial e Agricola Ometto”
3. Bill of purchase from “Casa Paulista Drago & Cia.”
4. Nominal list possibly referring to laborers and their salaries
5. Handwritten note with names, values, and arithmetic operations,
6. Handwritten note with names and values in kilos
7. Handwritten sheet with arithmetic operations

Ledger #0159 - Working vehicles, Ibicaba farm (1958-1972)

1. Typewritten sheet with the zonal distribution of the coffee trees in Ibicaba
2. Payment order from 1969 referring to a farm tractor

Ledger #0160 - Sugarcane harvest registries, Ibicaba farm (1958-1975)

1. Handwritten notes about sugarcane harvest, without date
2. Note about sugarcane burning, without date
3. Information about sugarcane planting in 1972
4. Scrap of paper with arithmetic operations

Ledger #0161 - General journal accounting & Daybook, Ibicaba farm (1960)

1. Scrap of paper with handwritten notes
2. Scrap of paper with handwritten notes
3. Scrap of paper with handwritten notes
4. Scrap of paper with handwritten notes
5. Scrap of paper with handwritten notes
6. Scrap of paper with handwritten notes
7. Scrap of paper with handwritten notes
8. Scrap of paper with handwritten notes
9. Handwritten current account of Ibicaba farm in March 1960
10. Receipt of the railroad “Companhia Paulista” in name of Mr. Flaminio Levy
11. Receipt of “Moto Mecânica Seidel”
12. Balance sheet about laborers employed in the renovation of Ibicaba’s farmhouse in 1950, from firm “Jacomo Pelozzi” (Cordeirópolis)
13. Typewritten receipt on the selling value of furniture by Mr. Cassio de Freitas Levy
14. Bundle with bills of purchase from “Casa Imperial Sinérgio Corte”, containing nine such bills
15. Service bill of the furniture producer “Rosenthal & Cia.”

Ledger #0162 - Cost accounting, Ibicaba farm (1960-1963)

1. Handwritten note referring to Mr. Antonio Barbato and sugarcane production (1960)
2. Handwritten note referring to Mr. Antonio Barbato and sugarcane production (1960)
3. Handwritten note referring to Mr. Antonio Barbato and sugarcane production (1960)

4. Handwritten note with mensal data (1960)

Ledger #0164 - General journal accounting & Daybook, Ibicaba farm (1961)

1. Loose scraps of paper with short notes and arithmetic operations
2. Loose scraps of paper with short notes and arithmetic operations
3. Loose scraps of paper with short notes and arithmetic operations
4. Loose scraps of paper with short notes
5. Loose scraps of paper with short notes
6. Loose scraps of paper with short notes

Ledger #0165 - Sugarcane shipments to sugar mills, Ibicaba farm (1961-1964)

1. Handwritten note glued to the back of the cover with data about the selling and planting of sugarcane
2. Handwritten note glued to the back of the cover with data about the selling and planting of sugarcane
3. Bundle with 8 bills of sugarcane bought by Usina Sant'Ana de Rio Claro
4. Typewritten note about the sugarcane 1962-1963 harvest
5. Typewritten note about the sugarcane 1963-1964 harvest
6. Handwritten note with labor expenditures
7. Scrap of paper with arithmetic operations
8. Scrap of paper with arithmetic operations
9. Handwritten list for the planting of sugarcane (1962)
10. Typewritten note authorizing the delivery of gasoline from Usina Sant'Ana for the transport of sugarcane.

(Note) This object contains an appendix that has not been shared online due to the personal nature of the content. This object speaks to data on sugarcane transactions originally put on sheet 50. Please email meap@library.ucla.edu if there are questions.

Ledger #0166 - General journal accounting & Daybook, Ibicaba farm (1962)

1. Shopping list and
2. Folded sheet with handwritten letters
3. Bill of purchase from “Empório Azul”
4. Bill of purchase from “Empório Azul”
5. Bill of purchase from “Casa Confiança”
6. Bill of purchase from “Armazém do Povo”
7. Label of “Caninha Cordeirinho”
8. Sale note of a piglet
9. Scrap of paper with numbers (possibly monetary values)
10. Receipt of house rentals
11. Receipt of house rentals
12. Receipt of house rentals
13. Receipt of house rentals
14. Registration record for telephone installation in Ibicaba farm
15. Bill of purchase from “Farmácia Victoria”
16. Receipt of house rentals

17. Receipt of house rentals
18. Receipt of house rentals
19. Receipt of house rentals
20. Bill of purchase from “Eletrolar IV”
21. Bill of purchase from “Eletrolar IV”
22. Registration records for telephone installation in the Ibicaba farm
23. Registration records for telephone installation in the Ibicaba farm
24. Registration records for telephone installation in the Ibicaba farm
25. Bill of purchase from “Farmácia Victoria”
26. Handwritten note with name of Ibicaba farm
27. Handwritten note with arithmetic operations
28. Receipt of house rentals
29. Receipt of house rentals
30. Receipt of house rentals
31. Bill of purchase from “Farmácia Santo Antônio”
32. Bundle with 2 bills of purchase from “Farmácia Victoria”, stapled
33. Bundle with 8 bills of purchase from “Casa Stocco”, stapled
34. Bundle with 3 bills of purchase from “Farmácia Coração de Jesus”, stapled
35. Bundle with 2 notes from “Associação Rural de Cordeirópolis”, stapled

Ledger #0169 - General journal accounting & Daybook, Ibicaba farm (1963)

1. Scraps of paper with handwritten notes about the vegetable garden
2. Scraps of paper with handwritten notes about the vegetable garden
3. Handwritten scrap of paper with arithmetic operations and numbers probably referring to laborers
4. Bill of purchase from “Casa Paulista”
5. Bill of purchase from “Casa Paulista”
6. List of medicine bought in “Santo Antônio” pharmacy
7. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
8. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
9. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
10. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
11. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
12. Receipt regarding a property leased by firm “S.A. Levy” to Ms. Sophia L. Stocco
13. Note on land taxes issued by the municipal hall of Cordeirópolis
14. Note on land taxes issued by the municipal hall of Cordeirópolis
15. Document with the letterhead of the Ibicaba farm containing handwritten names and monetary values
16. Loose sheet containing data on the farm’s laborers in 1963, including current accounts
17. Loose sheet containing data on the farm’s laborers in 1963, including current accounts

Ledger #0170 - Cost accounting, Ibicaba farm (1963-1969)

1. Scrap of paper with the letterhead of the Ibicaba farm containing arithmetic operations
2. Loose sheet with a registry of the farm tractors

(Note) This object contains an appendix that has not been shared online due to the personal nature of the content. This object speaks to banking transactions of Mr. Flaminio Levy between July and October 1964, originally put on sheet 38. Please email meap@library.ucla.edu if there are questions.

Ledger #0172 - Cash flow, Ibicaba farm (1964-1971)

1. Handwritten note about the harvesting of orange trees by brothers Zanete on the back of a cartoned photograph
2. Handwritten note on the back of a torn accounting sheet
3. Handwritten notes about oranges in name of "Zanette"
4. Handwritten note and arithmetic operations on the back of a torn accounting sheet

Ledger #0173 - General journal accounting & Daybook, Ibicaba farm (1965)

1. Scrap of paper with handwritten notes
2. Bills of purchase from "Empório Azul"
3. Post receipt
4. Bundle with four bills of purchase from "Drogasmil" pharmacy, stapled
5. Two bills of purchase from "Sobrado" gas station (original and its copy)
6. Bill of purchase from "Moagem de Pó Calcáreo Cruzeiro"
7. Typewritten note about the fixing of agriculture machine
8. Bill of purchase from "Empório Azul"
9. Bill of purchase from "Typographia Comercial"
10. Bill of "Cooperativa Popular de Consumo de Cordeirópolis Ltda."
11. Bill of "Cooperativa Popular de Consumo de Cordeirópolis Ltda."

Ledger #0174 - General journal accounting & Daybook, Ibicaba farm (1966)

1. Bill of purchase from "Casa Imperial"
2. Bill of purchase from "Casa Imperial"
3. Tax posting from the Municipal Chamber of Cordeirópolis (dual sided)
4. Postal receipt
5. Receipt from "Companhia Paulista de Estradas de Ferro" in name of "S/A Levy Comissaria e Exp. de Café"
6. Receipt from "Companhia Paulista de Estradas de Ferro" in name of "S/A Levy Comissaria e Exp. de Café"
7. Receipt from "Companhia Paulista de Estradas de Ferro" in name of "S/A Levy Comissaria e Exp. de Café"
8. Receipt from "Companhia Paulista de Estradas de Ferro" in name of "S/A Levy Comissaria e Exp. de Café"
9. "Boletim Informativo Municipal (free translation: Municipal Newsletter)" from Cordeirópolis to "S/A Levy – Fazenda Ibicaba"
10. Copy of the "Boletim Informativo Municipal (free translation: Municipal Newsletter)" from Cordeirópolis to "S/A Levy"
11. Blank bill of sale of "Fabrica de Farinha de Milho – Fazenda Ibicaba – Flaminio Levy"

12. Blank bill of sale of “Fabrica de Farinha de Milho – Fazenda Ibicaba – Flaminio Levy”
13. Scrap of paper with handwritten notes and arithmetic operations
14. Scrap of paper with handwritten notes and arithmetic operations

Ledger #0175 - General journal accounting & Daybook, Ibicaba farm (1967)

1. Bill of purchase from "Casa Imperial"
2. Bill of purchase from "Bazar Santo Antonio"
3. Handwritten note about milk delivery to Mr. Luiz Pedronese on the back of a scrap of paper from the social security of rural laborers
4. Scrap of paper about milk delivery to Mr. Luiz Barreto
5. Sheet with the letterhead of “Flamínio Levy (Fazenda Ibicaba)” for salary receipts (blank) with arithmetic operations on its back
6. Scrap of salary receipt with handwritten notes referring to Mr. Luiz da Silva
7. Bill of purchase from the firm “Comercial Battiston S/A”
8. Handwritten notes about Brazilian holidays in 1967 (sheet with the letterhead of the Ibicaba farm)
9. Bill of purchase from “Leiteria Ideal”
10. Bill of purchase from “Leiteria Ideal”
11. Bill of purchase from “Leiteria Ideal”
12. Bill of purchase from “Leiteria Ideal”
13. Bill of purchase from “Casa Imperial”
14. Bill of purchase from “Casa Imperial”
15. Bill of purchase from “Casa Imperial”
16. Bill of purchase from “Casa Imperial”
17. Bill of purchase from “Casa Imperial”

Ledger #0176 - General journal accounting & Daybook, Ibicaba farm (1968)

1. Scrap of paper with penciled notes
2. Scrap of paper with handwritten notes
3. Bill of purchase from “Armazém do Povo”

Ledger #0178 - General journal accounting & Daybook, Ibicaba farm (1969-1970)

1. Bill of purchase from “Irmãos Meirelles” farm store
2. Penciled scrap of paper
3. Scrap of paper with arithmetic operations written with a pen
4. Handwritten note (numbered 667) about the exchange of bran and manure
5. Scrap of paper with handwritten note of payment to “Fantucci” butchery
6. Bill of purchase from “Eletrolar Comercial Battiston”
7. Bill of purchase from “Eletrolar Comercial Battiston”
8. Bill of purchase from “Casa Imperial”
9. Bill of purchase from “Martini” farm store
10. Bill of purchase from “Martini” farm store
11. Bill of purchase from “Sobrado” gas station
12. Bill of purchase from “Armazém do Povo”

13. Bill of purchase from “Armazém do Povo”
14. Bill of purchase from “Comercial Bertoline Corte” farm store
15. Bill of purchase from “Armazém do Povo”
16. Handwritten note with names and arithmetic operations on a scrap of paper

Ledger #0179 - Cost accounting, Ibicaba farm (1969-1972)

1. Handwritten notes about harvesting in the Iracema farm and financial transactions in 1969
2. Handwritten notes about harvesting in the Iracema farm and financial transactions in 1969
3. Bill of purchase from “M. D. Gemignani” farm store
4. Proof of payment at the “Banco Commercio e Industria de São Paulo”
5. Proof of payment at the “Banco Itaú América”
6. Bundle with 5 stapled documents (bills of purchase from & service orders) of the firm “Civemasa”
7. Handwritten sheet with names and monetary values referring to the delivery of sugarcane

Ledger #0180 - General journal accounting & Daybook, Ibicaba farm (1970-1971)

1. Loose sheet with handwritten notes in the format of a General journal accounting for January 1971
2. Scrap of paper with handwritten receipt of milk delivery in Morro Alto farm
3. Scrap of paper with handwritten notes, probably referring to the selling of beans to laborers
4. Scrap of paper with handwritten notes, probably referring to the selling of beans to laborers
5. Scrap of paper with handwritten notes, probably referring to the selling of beans to laborers
6. Bill of purchase from “Casa Imperial”
7. Post register
8. Scrap of paper with arithmetic operations
9. Scrap of paper with handwritten receipt referring to the selling of meat from “Ideal” butchery to Ibicaba farm
10. Handwritten notes on the back of a political campaign leaflet
11. Handwritten notes on the back of a political campaign leaflet
12. Bill of purchase from “Comercial Battiston”
13. Bill of purchase from “Comercial Battiston”
14. Receipt stub of “Guardia” supermarket
15. Shopping list and bill of “Guardia” supermarket (these documents have not been digitized for reasons of data protection)

Ledger #0181 - General journal accounting & Daybook, Ibicaba farm (1972)

1. Post register
2. Bill of purchase from “Oliveira & Cia.” drugstore
3. Scrap of paper with handwritten note

Ledger #0183 - Cost accounting, Ibicaba farm (1974-1976)

1. Delivery note of fertilizer shipment by the “Estrada de Ferro Santos a Jundiáí”
2. Bundle with 8 bills of purchase of fertilizers from “Quimbrasil” in name of Antonieta de Freitas Levy e Outros, stapled
3. Bundle with 16 bills of purchase of fertilizers from “Ultrafertil S.A.” in name of Antonieta de Freitas Levy e Outros, stapled
4. Scrap of paper with the address of Mr. Nicolau Marotti
5. Scrap of paper with handwritten notes and arithmetic operations
6. Scrap of paper with handwritten notes and arithmetic operations
7. Scrap of paper with handwritten notes and arithmetic operations

Ledger #0184 - Cash flow, Ibicaba farm (1975-1981)

1. Handwritten note on the back of a carton
2. Handwritten note about expenditures with electricity and telephone on the back of a calendar sheet
3. Scrap of paper with handwritten note and monetary value
4. Bill of purchase from “Sobrado” gas station
5. Bill of purchase from “Sobrado” gas station
6. Bill of purchase from “Sobrado” gas station
7. Bill of purchase from “Sobrado” gas station
8. Bill of purchase from “Sobrado” gas station
9. Bill of purchase from “Sobrado” gas station
10. Bill of purchase from “Céu Azul” gas station
11. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
12. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
13. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
14. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
15. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
16. Bill of energy consumption, “Companhia Energética de São Paulo – CESP”
17. Bill of purchase from “Guardia” supermarket
18. Bill of purchase from “Guardia” supermarket
19. Bill of purchase from “Guardia” supermarket
20. Bill of purchase from “Guardia” supermarket
21. Bill of purchase from “Della Coletta” supermarket
22. Receipt of the Health Center of Limeira, in name of Ms. Antonieta de F. Levy
23. Receipt of the Health Center of Limeira, in name of Ms. Antonieta de F. Levy
24. Handwritten notes on the back of a rail coupon
25. Handwritten notes on the back of a rail coupon
26. Handwritten notes on the back of a rail coupon
27. Handwritten notes on the back of a rail coupon
28. Handwritten notes on the back of a rail coupon
29. Handwritten notes on the back of a rail coupon
30. Handwritten notes on the back of a rail coupon
31. Handwritten notes on the back of a rail coupon

32. Handwritten notes on the back of a rail coupon
33. Supermarket list handwritten by Ms. Angela Levy
34. Supermarket list handwritten by Ms. Angela Levy
35. Scrap of paper with handwritten notes
36. Scrap of paper with handwritten notes
37. Scrap of paper with handwritten notes
38. Bill of purchase from “Guardia” supermarket
39. Bill of purchase from “Guardia” supermarket
40. Bill of purchase from “Guardia” supermarket
41. Bill of purchase from “Guardia” supermarket
42. Bill of purchase from “Guardia” supermarket
43. Bill of purchase from “Guardia” supermarket
44. Bill of purchase from “Guardia” supermarket
45. Bill of purchase from “Guardia” supermarket
46. Bill of purchase from “Guardia” supermarket
47. Bill of purchase from “Guardia” supermarket
48. Bill of purchase from “Guardia” supermarket
49. Bill of purchase from “Guardia” supermarket
50. Bill of purchase from “Della Coletta” supermarket
51. Bills of energy consumption, “Companhia Energética de São Paulo – CESP”
52. Bills of energy consumption, “Companhia Energética de São Paulo – CESP”
53. Delivery confirmation for the income tax of Ms. Antonieta de Freitas Levy (Not digitized)
54. Bill of purchase from “Indústria de Máquinas Lima S/A”, in name of Mr. José Antonio Levy
55. Bill of purchase from “Indústria de Máquinas Lima S/A”, in name of Mr. José Antonio Levy
56. Bill of purchase from “Indústria de Máquinas Lima S/A”, in name of Mr. José Antonio Levy
57. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
58. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
59. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
60. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
61. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
62. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
63. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
64. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
65. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
66. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
67. Bill of purchase from “Armazém do Povo” in name of Mr. José Antonio Levy
68. Handwritten notes about expenditures in September 1980

(Note) This object contains 24 appendices that have not been shared online due to the personal nature of the content. These objects speak to private grocery purchases and lists, as

well as the delivery confirmation of an income tax declaration – all grouped together with the previously listed appendices. Please email meap@library.ucla.edu if there are questions.

Extra documents #0004 - Current account, Joaquim Pereira & Cia. (1902-1906)

1. Newspaper clipping. Notification from July 16, 1906, with handwritten note “Estado 19-Julho-”, most likely referring to the newspaper “Estado de São Paulo”. The report is about a legal dispute of the firm “Joaquim Pereira & Cia.” regarding farms S. Joaquim and S. José, “[...] called ‘Cordeiro’”
2. Newspaper clipping. Notification from July 18, 1906, with handwritten note “Estado 19-Julho-”, most likely referring to the newspaper “Estado de São Paulo”. The report is about a legal dispute of the firm “Joaquim Pereira & Cia.” regarding S. Joaquim farm

Extra documents #0006 - Current account & Miscellanea (1927-1933)

1. Envelope of “Departamento de Propaganda dos Municípios do Est. de São Paulo”, with the letterhead of Mr. Florentino Rosas

Paulo M. Levy's Library #0002 - Workers' checking accounts, Ibicaba farm (1862-1872)

1. Rough draft with workers' names and entries corresponding to some unit of account (I and ½), possibly referring to coffee harvests
2. Note in German sent from Rio Claro to Mr. Laby. It refers to operations executed in 1863 and 1864
3. Scrap of paper, possibly used to avoid tint blots between sheets
4. Scrap of paper, possibly used to avoid tint blots between sheets
5. Scrap of paper, possibly used to avoid tint blots between sheets
6. Loose accounting slip in name of Mr. Valentin Hartmann (1865-1866)
7. Blank scrap of paper, possibly used as a bookmark