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HERDING HISTORY: LAW AND COLLECTIVE
SUBJECTIVITIES IN THE
DAIRYSPHERES OF UKRAINE
Monica E. Eppinger

Herding History: Law and Collective Subjectivities in the Dairyspheres of Ukraine

*Monica E. Eppinger**

Abstract

In response to the limitations of socialism and capitalism in meeting basic needs, this article explores the alternative version of modernity offered in post-Soviet Ukraine and its agriculture. Tracing a century of fundamental transformations through the story of milk, it finds a history that troubles universalized framings of indigeneity and colonialism. This article argues that under socialism milk became a product of collectivized effort and a reservoir of household resilience; and then, with post-Soviet disintegration of some forms of collective life and emergence of others, that milk has come to delineate spheres of both collective action and individual striving. This research finds in Ukrainian farming communities a tale of two privatizations, one concentrating wealth and the other, distributing it in more equalizing ways. In the dispersed structure that results, much Ukrainian milk production avoids some of the more environmentally harmful forms for which the contemporary milk economy is famous elsewhere. This study reveals the pragmatic play of gender dynamics within legal disputes and social transformation. Though now enmeshed in global economic networks and policy agendas, milk has remained the ground of specific social networks; this article shows the resilience of intimate relationships between dairy cows and their keepers and the political strength, untapped nationally but salient locally, of dairy maids.

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I. Introduction

In 1992, the milkmaids of Gruzenske village in northern Ukraine¹ demanded a meeting with their collective farm director to discuss the alarming number of cattle gone missing from the village herd. With the Soviet Union recently dissolved² and its structures of command economy and Party discipline evaporating, the milkmaids suspected the director of selling off the farm's herd and pocketing the profits. They were furious both with the apparent theft of an asset and with the disappearance of cows whom they had nurtured and spent hours with, daily, since calthood. Thus it was, in a scene repeated across Ukraine (and a decade before legislation instituted rural decollectivization *de jure*), that each village family went home with a cow and the milkmaids decollectivized the dairy holdings of Gruzenske.³ Although commonly glossed as a national matter of economic policy,⁴ "privatization" here is revealed as a local dispute

¹ This paper follows disciplinary conventions in anthropology for protecting confidentiality of interlocutors in the field. *See, e.g.*, MARIANE C. FERME, *THE UNDERNEATH OF THINGS: VIOLENCE, HISTORY, AND THE EVERYDAY IN SIERRA LEONE* ix (2001) (foregrounding the anthropological practice of concealing identities of specific interlocutors). Accordingly, throughout this article, I have anonymized names of people and places in references to my own fieldwork; "Gruzenske village" is an example. Names of publicly recognized historical events and places, or contemporary officials, public figures, or works of published authors, however, are referenced without alteration. Translations, except as noted, are the author's.

² Decree of the Parliament of Ukraine [hereinafter PVRU], "On the Declaration of Independence of Ukraine," № 1427-XII, Aug. 24, 1991 in VIDOMOSTI VERKHOVNOI RADI [RECORD OF THE PARLIAMENT OF UKRAINE, hereinafter VVR] 1991, № 38, at 502, *adopting* DECLARATION OF INDEPENDENCE OF UKRAINE, Verkhovna Rada of Ukraine, Aug. 24, 1991 <https://zakon.rada.gov.ua/laws/show/1427-12> (declaring Ukraine independent by act of Parliament); Belavezha Accords, Dec. 8, 1991, Ukraine, Belarus, and Russia (agreement signed by heads of three Soviet Republics -- of the four original signatories to the 1922 treaty establishing the U.S.S.R. -- proclaiming the Soviet Union ceased to exist); Alma-Ata Protocol, Dec. 21, 1991 (agreement signed by representatives of eleven of twelve then-remaining U.S.S.R. republics, confirming extinguishment of the U.S.S.R.).

³ Interviews with Tyotyа Doyarka, head dairy maid of Gruzenske village collective farm, Sept. 15-19, 2009.

⁴ *See, e.g.*, First Plenary Session of U.S.-Ukraine Binational Commission, Joint Statement of the Kuchma-Gore Commission, May 16, 1997, *reprinted at* <http://www.ukrweekly.com/old/archive/1997/219724.shtml> (showing that privatization was seen as both a national project and an economic matter for Ukraine); *see also, e.g.*, Law of Ukraine, "On the Privatization of State Property" № 2163-XII, March 4, 1992 in BBP, 1992, № 24, at 348, Art. 1 <http://www.spfu.gov.ua/en/documents/3050.html> (describing privatization as the alienation of state property in exchange for payment and specifying privatization

within gendered domains of practice over emergent norms and divergent practices: the director's alleged action, pursued in secret and publicly reviled, and the milkmaids', carried out in public view, permitted at the time and valorized in the retelling.

The dissolution of dairy collectives in Ukraine was part of a vast national political and economic transformation.⁵ As the episode from Gruzenske shows, post-Soviet "privatization" in Ukraine has involved disputes over legitimacy; norm formation in real time; conflicts settled within the parameters of legal conduct that may go on to reshape the basic grounds of legality itself;⁶ and assertions of agency alongside the re-formation of legal subjects within shifted modes of power. As dairy cattle became a part of a village economy reestablished around households, multinational food processing companies organized morning milk collection throughout rural Ukraine⁷ and administrative measures introduced health and safety regulations to make Ukrainian dairy products compatible with European markets.⁸ Presidential decrees ordered dissolution of collective farms and legislation instituted private property ownership of collective farm assets.⁹ Law reestablished the conditions of possibility for dairy production. Ukrainian milk has become big business and, with daily milk sales one of the steadiest sources of cash for otherwise autarkic-tending households, milk has become a point of articulation into an international economy.

At the same time, milk remains deeply local. In fact, contemporary Ukraine and the place of milk in it presents a puzzle to

as a national project undertaken "with the aim of improving the socio-economic efficiency of production and raising funds for structural adjustment of the national economy").

⁵ For work describing its complex of legal, economic, political, and social effects, see Monica E. Eppinger, *Property and Political Community: Democracy, Oligarchy, and the Case of Ukraine*, 47 *GEORGE WASHINGTON INT'L L. REV.* 825 (August 2015).

⁶ See Monica E. Eppinger, *On Common Sense: Lessons on Starting Over from post-Soviet Ukraine*, in *STUDYING UP, DOWN, AND SIDEWAYS: ANTHROPOLOGISTS TRACE THE PATHWAYS OF POWER* (Rachael Stryker and Roberto Gonzalez eds., 2014) (outlining contestations of legitimacy and reshaping the grounding of legality in post-Soviet Ukraine).

⁷ See text *infra* notes 173-175 below.

⁸ See generally Monica E. Eppinger *Nation-building in the Penumbra: Notes from a Liminal State*, 32 *HASTINGS INT'L & COMP. L. REV.* (2009) (giving an overview of legal aspects of European integration).

⁹ See text *infra* notes 137 - 146 below.

some analytic frameworks¹⁰ in which milk has come to be understood as emblematic of settler-colonialism.¹¹ As elsewhere, in Ukraine the milk economy may, in part, index market hegemony,¹² but colonialism is a different matter. Debate over how to characterize Ukraine's past, either within Russian or Austro-Hungarian empires¹³

¹⁰ See, e.g., Kelly Struthers Montford, *Securing Animal-Based Ontologies in Canada*, 16 J. FOOD L. & POL'Y 48 (2020) (seeing milk in the Canadian context as sign and perpetrator of settler-colonialism); Maneesha Deckha, *Something to Celebrate?: Demoting Dairy in Canada's National Food Guide*, 16 J. FOOD L. & POL'Y 11 (2020) (viewing milk's presence with a healthy skepticism). See also Merisa S. Thompson, *Milk and the Motherland? Colonial Legacies of Taste and the Law in the Anglophone Caribbean*, 16 J. FOOD L. & POL'Y 135 (2020) (analyzing the place of milk among colonial legacies in the Anglophone Caribbean).

¹¹ "Settler colonialism," a term coined by Australian anthropologist Donald Denoon, describes an imperial formation distinct from the "de-development" typical of colonialism. Donald Denoon, *Understanding Settler Societies*, 18 HISTORICAL STUDIES 511 (1979). Though also premised on exogenous domination, settler colonialism "seeks to replace the original population of the colonized territory with a new society of settlers" Tate A. LeFevre, *Settler Colonialism*, in OXFORD BIBLIOGRAPHIES (May 29, 2015) <http://www.oxfordbibliographies.com/view/document/obo-9780199766567/obo-9780199766567-0125.xml>. In it, "the colonizers came to stay," making "invasion ... a structure, not an event." PATRICK WOLFE, *SETTLER COLONIALISM AND THE TRANSFORMATION OF ANTHROPOLOGY: THE POLITICS AND POETICS OF AN ETHNOGRAPHIC EVENT* 2 (1999). For further discussion of this analytic, see also Monica Eppinger, *The Challenge of the Commons: Beyond Trespass and Necessity*, 66 AM. J. COMP. L. SUPP. 1 (June 2018). For extension of metaphors of milk and power to critique of post-colonialism, see, e.g., FRANZ FANON, *BLACK SKIN, WHITE MASKS* 28-30 (Richard Philcox trans., 2008 (1952)) (calling colonized peoples' identifying with whiteness a pathological "striving for lactation": at the expense of "the originality of that part of the world in which they grew up," they try to "save the race" by "ensur[ing] its whiteness").

¹² Xiaojian Hu, *"A Glass of Milk Strengthens a Nation": Global Markets, State Power, and the Rise, Collapse, and Restructuring of China's Dairy Farms*, 16 J. FOOD L. & POL'Y 78 (2020) (looking at milk as both a sign of market intrusion and as indexing state power in contemporary P.R. China); Erum Sattar, *Can Small Farmers Survive?: Problems of Commercializing the Milk Value Chain in Pakistan*, 16 J. FOOD L. & POL'Y 228 (2020) (examining market incursions and transformations of the "traditional" in regard to milk in Pakistan). But see Mathilde Cohen, *Toward an Interspecies Right to Breastfeed*, 26 ANIMAL L. REV. 1, 13-14 (2020) (analyzing ideologies and practices, such as rights, that would limit markets and reconfigure the bases for circulation and exchange in regard to milk).

¹³ On Ukraine as a "colony" or zone of exploitation of the Russian empire, see generally OREST SUBTELNY, *UKRAINE: A HISTORY* 268-269 (1988) (summarizing social critics' and historians' analysis of Ukraine under the Russian empire), quoting, e.g., Vladimir Ilyich Lenin, "it [Ukraine] has become for Russia what Ireland was for England: exploited in the extreme and receiving nothing in return," cited in *Lénine et la question ukrainienne en 1914: le discours 'séparatiste' de Zurich*, 25 PLURIEL 83 (Roman Serbyn ed., 1982); and citing, e.g.,

or under Soviet governance,¹⁴ is largely beyond the scope of this article, but in order to assess dairy in Ukraine as a "colonial" import, in Part II the body of the Article starts with a very brief treatment of origins in order to reconsider and argue for milk's indigeneity.

Even if indigenous, milk in Ukraine does not figure in a simple or straightforward story, as succeeding sections of the Article show. It is laden with power and inequalities that take some background understanding of context to recognize, and the Article brings to bear sources and methods of both history and anthropology (including my own fieldwork conducted 2002-2019)¹⁵ to decipher the present. Milk provides a through-line through which to follow the transformation of subjectivities and structures via some of the

Mykhailo Volobuev, *Do problemy ukrainskoi ekonomiky*, in *DOKUMENTY UKRAINSKOHO KOMMUNIZMU* 132 (1962) (characterizing Ukraine within the Russian empire as a "European" rather than "Asiatic" type of colony, industrially well-developed and yet deprived not so much of its resources as of its capital and potential profits). For those arguing contra, see SUBTELNY, *id.*, citing IVAN HURZHYI, *UKRAINA V SYSTEMI VSEROSIYSKOHO RYNKU 60-90KH ROKIV XIX ST.* 168-78 (1968). On Western Ukraine under the Austro-Hungarian (Habsburg) Empire during the same period, see SUBTELNY, *id.* at 212-219 (summarizing reforms that raised the status of peasants in what is now Western Ukraine, but still left them in an "oppressed and backward state").

¹⁴ For a view of Soviet governance as a version of colonialism, see, e.g., SUBTELNY, *id.* at 537 (describing Soviet Ukraine's situation as "the Great Discrepancy," with Ukraine playing a large economic role and boasting a "numerous, well-educated population," but "still unable to decide its own fate"). For scholarship recognizing roles that Ukrainians played in the Soviet project, see, e.g., Orysia Maria Kulick, *When Ukraine Ruled Russia: Regionalism and Nomenklatura Politics after Stalin, 1944-1990*, doctoral dissertation, Stanford University, 2016; MAYHILL C. FOWLER, *BEAU MONDE ON EMPIRE'S EDGE: STATE AND STAGE IN SOVIET UKRAINE* (2017). See also, e.g., Orysia Maria Kulick, *Soviet Military Production and the Expanding Influence of Ukrainian Regional Elites under Khrushchev and Brezhnev*, 25 *UKRAINA MODERNA* (2018) http://uamoderna.com/images/archiv/25-2018/UM_25_texts/UM-25-Kulick_120-142.pdf.

¹⁵ I conducted field research over several periods of longer duration, for fourteen months over 2006-2007 and for five months in 2017, as well as several intense shorter periods in summer 2002, 2012, 2013, 2014, and 2019, and in autumn 2009 and 2016. My fieldsites included an agricultural consulting enterprise in Kyiv, and former collective or state farms in northern Ukraine (Sumy oblast'), western Ukraine (Ivano-Frankivsk oblast'), central Ukraine (then-Kirovohrad oblast'), and southern Ukraine (Kherson oblast' and Crimea). My methods included interviews (with farmers, agricultural experts and consultants, managers in agricultural holding companies, agricultural traders, food processing concerns, policy-makers, members of parliament, and consumers), life histories, and participant-observation (both on farms and among agricultural experts in Kyiv). I use statistics, journalistic reporting, experts' assessments, private consultants' and government advising documents, official reports, as well as legal and regulatory material to inform the account I draw from the qualitative data.

most formative social experiments of the past century, through the present day.

The Article thus turns to its main focus, tracing processes of collectivization and decollectivization of agriculture in Ukraine through the story of milk. In Part III, the Article follows how Soviet law and practice collectivized agricultural production in Ukraine, and how milk production figured in the new rural register. It relates how, as a part of a household economy within collective agriculture, milk production provided a residual source of nutrition and income that, through periods like the Great Famine and the Nazi occupation, proved crucial to family survival. It further explores how, against vast state practices in applying science to agriculture, milk production resisted mechanization and industrialization.¹⁶ In Part IV, it traces Ukraine's post-Soviet transformation through the story of milk. Building on the approaches of Sol Tax, Sidney Mintz and Laura Nader,¹⁷ it situates study of micro-practices within the context of national laws, international trade, and global shifts in modes of power, following the reach and limits of multinational corporations into the daily routines of remote villagers. In local enactments, it finds both the disintegration of some forms of collective life and the emergent reorganization of daily life along the lines of new collectivities,¹⁸ including gendered dynamics within legal disputes and social transformation. The Article concludes that milk has served as the ground of specific social relationships and networks, and analyzing it as such, this Article brings to light the resilience of relationships between dairy cows and their keepers, and the organizational power of dairy maids.

II. Origins and Indigenities

The record is clear that dairying on Ukrainian territory, or milk in Ukrainian diets, is neither of recent nor "external" origin. Archeological evidence places dairying in the earliest sites of human occupation on the territory of Ukraine thus far uncovered there, from the 4th millennium B.C.E., making it perhaps the earliest practiced in Europe.¹⁹ Historical linguistics corroborates the early and

¹⁶ See Part III below.

¹⁷ See, e.g., SOL TAX, PENNY CAPITALISM: A GUATEMALAN INDIAN ECONOMY (1953); SIDNEY MINTZ, SWEETNESS AND POWER: THE PLACE OF SUGAR IN MODERN HISTORY (1985); LAURA NADER, HARMONY IDEOLOGY (1990).

¹⁸ See Part IV below.

¹⁹ For evidence of dairying as early as the 4th millenium B.C. in "mega-sites" of the Tripillya culture of Neolithic Ukraine, see Olive E. Craig, *The Development of*

enduring presence of dairy with words in Slavic (a linguistic group believed to have originated in the vicinity of Ukraine in roughly the 5th century B.C.E., and still the native language family of most current-day residents of Ukraine) for "cow" and for "milk" traceable from contemporary Ukrainian and Russian through proto-Slavic (approximately 2500 B.C.E.-500 C.E.) to Indo-European (approximately 4500-2500 B.C.E.) origins.²⁰

Moving from prehistory to history, in the oldest written records describing lifeways of the Ukrainian steppe, milk stands out. Herodotus distinguished its people in their "living not by tilling the soil but by cattle rearing,"²¹ famous in the ancient Greek imagination as the *Galaktophágoi* -- "Milk-eaters" -- of the northern Black Sea

Dairying in Europe: Potential Evidence from Food Residues, 29 DOCUMENTA PRAEHISTORICA 97 (2002)

https://www.researchgate.net/publication/228581338_The_development_of_dairying_in_Europe_potential_evidence_from_food_residues_on_ceramics; R.P.

Evershed, et al., *Identification of Animal Fats via Compound-Specific $\delta^{13}C$ values of individual fatty acids: assessments of results for reference fats and lipid extracts of archeological pottery vessels*, 29 DOCUMENTA PRAEHISTORICA 73,

<https://revije.ff.uni-lj.si/DocumentaPraehistorica/article/view/29.7>. See also J.

Chapman and B. Gaydarska, *The Provision of Salt to Tripolye Mega-Sites, in TRIPOLIANS SETTLEMENTS-GIANTS: THE INTERNATIONAL SYMPOSIUM MATERIALS (National Academy of Sciences of Ukraine, Institute of Archeology, 2003) at 203* http://community.dur.ac.uk/j.c.chapman/tripollia/pdf/Chapman_and_Gaydarska_2003.pdf. See also Oliver E. Craig et al., *Did the First Farmers in Anatolia and*

Europe Produce Dairy Foods? 79 ANTIQUITY 882 (Dec. 2005)

[https://www.cambridge.org/core/journals/antiquity/article/did-the-first-farmers-of-central-and-eastern-europe-produce-dairy-](https://www.cambridge.org/core/journals/antiquity/article/did-the-first-farmers-of-central-and-eastern-europe-produce-dairy-foods/284138196CFD83FA06340C061EDF5F93)

[foods/284138196CFD83FA06340C061EDF5F93](https://www.cambridge.org/core/journals/antiquity/article/did-the-first-farmers-of-central-and-eastern-europe-produce-dairy-foods/284138196CFD83FA06340C061EDF5F93) (identifying even earlier evidence for dairying in Ukraine, dating back to the Early Neolithic (5900-5500 B.C.)); RENATE ROLLE, *THE WORLD OF THE SCYTHIANS 100-101* (F.G. Walls trans., 1980) (describing later populations of Bronze Age Cimmerian people (predating the Scythians) among whom horse-, sheep-, and especially cattle-rearing predominated).

²⁰See, e.g., entries for: корова укр./р. ["korova (Ukrainian)/(Russian)], or "cow," traced back to the Proto-Slavic *korva, meaning "cow," in turn traced to the Indo-European root *ker- [horn]; and молоко укр./р [moloko (Ukrainian)/(Russian)], "milk," to the Proto-Slavic *melko, in turn traced to the Indo-European root *melg-, "to milk," in M.F. VASMER, *ETYMOLOGICHESKIY SLOVAR' RUSSKOGO YAZYKA* (1964-1973), entries available respectively at

<https://endic.ru/fasmer/Korova-6357.html> and [https://endic.ru/fasmer/Moloko-](https://endic.ru/fasmer/Moloko-8234.html)

[8234.html](https://endic.ru/fasmer/Moloko-8234.html). See generally MARIJA GIMBUTAS, *THE PREHISTORY OF EASTERN EUROPE. PART I: MESOLITHIC, NEOLITHIC AND COPPER AGE CULTURES IN RUSSIA AND THE BALTIC AREA* (1956) (locating the Proto-Indo-European homeland between the Bug and Volga Rivers, with center around the Dniester and Don in present-day southern Ukraine).

²¹HERODOTUS, *THE PERSIAN WARS*, vol. II, Book IV, chapter 46, at 247 (Loeb Classical Library edition, A.D. Godley trans., 1920 (first written around 425 B.C.)).

littoral.²² Southern steppe nomads' reliance on milk supported an admired reputation for practical, virtuous austerity,²³ impressing ancient Greeks as "the lordly *Hippemolgi* [literally, 'mare-milkers'], they that drink the milk of mares."²⁴ Pastoral impressions continued to dominate later travelers' accounts of verdant Ukraine; one in 1651, for example, was struck by grain "growing uncultivated" and that dairy products were "no less abundant there than grain, whether because of the great number of pastures or the abundance of ponds."²⁵

²² HOMER, *THE ILIAD*, VOL. II, Book XIII, Ch. IV, Section I (Loeb Classical Library edition, Augustus Taber Murray trans., 1924) (describing *Γαλακτοφάγοι Galactophagoi*, the "milk eaters" of the southern Ukrainian steppe). See also Claudia Ungefehr-Kortus, *Galactophagi*, in *BRILL'S NEW PAULY* (Hubert Cancik and Helmut Schneider eds., English edition Christine F. Salazar ed., first published online 2006) <https://referenceworks.brillonline.com/entries/brill-s-new-pauly/galactophagi-e417740?s.num=27&s.start=20>; STRABO, *THE GEOGRAPHY OF STRABO*, Book VII, Ch. III, Sect. VII (Hans Claude Hamilton and William Falconer trans., 1903 ed. (est. 7 B.C. or 17-18 A.D.) <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0198%3Abook%3D7%3Achapter%3D3%3Asection%3D7> (attesting that, four hundred years after Homer, on the northern Black Sea littoral "even now there are Wagon-dwellers and Nomads, so called, who live off their herds, and on milk and cheese, and particularly on cheese made from mare's milk, and know nothing about storing up food").

²³ D. Braund, *Greeks, Scythians, and Hippake, or 'Reading Mare's Cheese,'* in *ANCIENT GREEKS WEST AND EAST* (Gocha R. Tsetskhladze ed., 1999) 521, 527 ("*Hippake* [mare's milk cheese consumed by Scythians of the southern Ukrainian steppe] was austere alterity at its best. For Greek audiences, it combined practical utility with a localised simplicity of lifestyle"). See also, e.g., THEOPHRASTUS, *ENQUIRY INTO PLANTS* VOL. II, Book IX, Ch. XIII, Sect. 2, 281, (Loeb Classical Library edition, E. Capps, T.E. Page, D. Rouse eds., Arthur Hort trans., 1916 (350 B.C.-287 B.C.)) https://archive.org/stream/enquiryintoplant02theouoft/enquiryintoplant02theouoft_djvu.txt (boasting of Scythian milk and stamina that they could, relying only on the liquorice-plant related "Scythian root" and mare's milk cheese, "go eleven or twelve days without drinking"). See also IGOR' KHRAPUNOV, *THE CRIMEA IN THE EARLY IRON AGE: AN ETHNIC HISTORY* (Nikita Khrapunov trans, 2012) at 71, http://открытаяархеология.рф/sites/default/files/Igor_Khrapunov_The_Crimea_in_the_Early.pdf (describing osteological finds on Crimea evidencing cattle-, sheep-, and goat-raising among the pastoralist pre-Scythian Kizil-Koba (Tauris) culture).

²⁴ HOMER, *supra* note 22, at Book XIII, Ch. IV, Sect. I. See also Aeschylus, Prometheus Unbound [*Promētheus Lyomenos*], in *AESCHYLUS, AESCHYLUS II: AGAMEMNON, LIBATION-BEARERS, EUMENIDES, FRAGMENTS* at Fragment 111 (Loeb Classical Library edition, Herbert Weir Smyth trans, 1926 (5th century B.C.)), <https://www.theoi.com/Text/AeschylusFragments2.html> (referring to the law-abiding, "well-ordered Scythians that feed on mares' milk cheese").

²⁵ Venetian Michele Bianchi served as envoy from a papal nuncio in Warsaw to Ukrainian military-political leader Bohdan Khmel'nits'kyi in 1651 and then published a book of traveller's notes under the pseudonym Alberto Vimina. The quoted excerpt comes from ALBERTO VIMINA, *HISTORIA DELLE GUERRE CIVILI DI POLONIA 7-9* (Venice, 1671), quoted in Frank Sysyn, *Framing the Borderland: The*

The archeological, linguistic, and historical records concur in finding milk and milk products a part of Ukrainians' production patterns and diets for millennia prior to empires and colonial projects. Present-day Ukrainians -- as it turns out, with scholarly corroboration -- consider milk indigenous.

Though the settler-colonialism critique has made crucial interventions in the social analysis of food systems and power, its application to the Ukrainian context in regard to milk is not as apt a fit. Ukraine thus offers a compelling contrast case of milk holding a firm place in the consumption of the contemporary and, as Part III shows, in the construction of the modern, but not as a dietary transplant. It is in part in this dually situated position -- its indigeneity and its modernity -- that the story of milk in Ukraine may offer some insights of broader interest. This Part has argued a relatively straightforward case for indigeneity based on origins. The next Part examines milk in modernity, some features of which may deromanticize the story and trouble any simple assertion that indigeneity precludes hegemony.

III. Cows and Collectives

A. Land of Milk, Honey, and Tragedy

Post-Soviet Ukrainian milk production was built out of the system of collective farming that independent Ukraine inherited upon dissolution of the Soviet Union. Understanding the post-Soviet requires some understanding of Soviet precursors. This Part offers a short historical overview of the Soviet system of collective farming, attempting to outline both its cataclysmic beginnings and the modernization it achieved over a seventy-year span,²⁶ in order to understand some of the social, legal, and affective structures that still frame dairy in present-day Ukraine.

Image of the Ukrainian Revolt and Hetman Bohdan Khmel'nyts'kyi in Foreign Travel Accounts, in FROM MUTUAL OBSERVATION TO PROPAGANDA WAR: PREMODERN REVOLTS IN THEIR TRANSNATIONAL REPRESENTATIONS (Malte Griesse ed., 2014) at note 32.

²⁶ For discussion of building collective life, see Eppinger, *Oligarchy*, *supra* note 5. For discussion of the association of tragedy with collectivization, see Monica Eppinger, *Cold-War Commons: Tragedy, Critique, and the Future of the Illiberal Problem Space*, 19 THEORETICAL INQU. L. 457 (July 2018) <https://www7.tau.ac.il/ojs/index.php/til/article/view/1579>.

Collectivization of agriculture, though central to Soviet socialism, actually got underway more than a decade after the Socialist Revolution of 1917. Although abolishing private property was an end in itself for Bolsheviks,²⁷ war and other emergencies initially sidelined it²⁸ until Stalin's drive for rapid industrialization put it back on the agenda in 1927.²⁹ Industrialization required grain, both to raise export revenues for purchasing industrial equipment and to feed urban workers;³⁰ peasants resisted selling grain to state procurement agents at the state's prices,³¹ and so, Stalin argued to a Communist Party Congress in 1927, a resulting "grain crisis" demanded that the U.S.S.R. transition to collectivized agriculture to facilitate grain production and collection.³² Accordingly, government bodies authorized collectivizing agricultural production³³ and the Party adopted, for the first time, a five-year plan for agriculture with collectivization as its central pillar in April 1929.³⁴

²⁷ Decree of All-Russian Central Executive Committee, "On Socialist Land Reform and on Measures Leading to Socialist Farming," *Sobr. Zakon. i Raspriazh. RKP RSFSR* [hereinafter *SZR RSFSR*] No.4 It. 43 (1919), (reaffirming Soviet government's intention to outlaw individual types of farming and set up collectives), reprinted in *SOVIET LEGAL HISTORY* 118 (Zigurds L. Zile ed., 1992) [hereinafter Zile, *SOVIET LEGAL HISTORY*]. See also, e.g., Vladimir Ilyich Lenin, *Otvét na zapros krest'ianina*, in *VLADIMIR ILYICH LENIN, POLNOE SOBRANIE SOCHINENII* 1953 (1919).

²⁸ Early on, the Soviets did redistribute crown and church estates (but not other kinds of private lands) to local peasants. Second All-Russian Congress of Soviets Decree "On Land," *SZR RSFSR* No. 1, It. 3 (1917-1918), reprinted in Zile, *SOVIET LEGAL HISTORY*, *supra* note 27 at 116-117.

²⁹ Decree of U.S.S.R. Central Executive Committee (CEC) and the Council of People's Commissars (CPC) [otherwise known by its Soviet neologism, Sovnarkom] "On Collective Farms," *SZP SSSR* No. 15 It. 161 (1927).

³⁰ On the relationship between food policy and industrialization, see Lynne Viola, *Introduction*, in *WAR AGAINST THE PEASANTRY, 1927-1930, VOLUME 1: THE TRAGEDY OF THE SOVIET COUNTRYSIDE* 1-20 (Lynne Viola et al. eds., 2005) [hereinafter Viola, *WAR ON PEASANTRY*] (arguing that the timing of collectivizing Soviet agriculture was driven by demands arising from a drive for rapid industrialization).

³¹ On the grain crisis, see, e.g., U.S.S.R. People's Commissar of Trade A.I. Mikoian, "On the Progress of Grain Procurements," Speech to Collegium of Trade Commissariat (October 3, 1927) (transcript available in Russian State Archive of the Economy, f. 5240, op. 9, d. 102, ll. 45-49), reprinted in part in Viola, *id.*, at 27-29. See also R.W. DAVIES, *THE SOCIALIST OFFENSIVE: THE COLLECTIVIZATION OF SOVIET AGRICULTURE 1929-1930* 39-40 (1980) [hereinafter DAVIES, *COLLECTIVIZATION*].

³² XVth Congress of the All-Union Communist Party (Bolshevik). Stenographic Record. 56 (1928), cited in Viola, *id.*, at 386 n. 24.

³³ Decree of CEC and CPC "On Collective Farms," *SZR SSSR* No. 15 It. 161 (1927).

³⁴ Viola, *Introduction* to Chapter 3, *The Great Turn, 4 May 1929 – 15 November*

Although grain concerns propelled the change, the collectivization drive had deep implications for dairy as well. Collectivization entailed fundamental change to legal doctrines and Soviet law innovated to encompass socialist forms of property and agricultural organization,³⁵ over time resulting in a hierarchy affording different forms of property differing levels of legal protection.³⁶ At the top, state property such as "state farm" (*sovkhos*) holdings, including any dairy cattle, formally belonged to "the people as a whole" and the resident farmers were wage-laborers.³⁷ Slightly lower, collective farm (*kolkhoz*) assets (including the dairy herd, if any) belonged indivisibly to a distinct group of citizens formed into a collective unit.³⁸ At the bottom, "personal property" served personal needs and included single-family houses, personal belongings, and, if any, a household cow.³⁹ Its use for profit-making was largely prohibited.⁴⁰

Beyond legal reforms, the process of collectivizing agriculture in Ukraine changed the social landscape within which dairying took place. Initially participation in collective farming was voluntary (and in 1928, only 1.7% of Soviet peasant households were

1929, in Viola, WAR ON PEASANTRY, *supra* note 30, at 122.

³⁵ Art. 5, CONST. OF U.S.S.R. (1936) ("Socialist property in the USSR exists either in the form of state property (belonging to the people as a whole) or in the form of cooperative and collective-farm property (property of collective farms or cooperative societies"). All references to the U.S.S.R. Constitution of 1936 cited here and hereinafter, *reprinted in ISTORIJA SOVETSKOI KONSTITUTSII V DOKUMENTAKH, 1917-1956* 729 (1957) and *excerpted in Zile, SOVIET LEGAL HISTORY, supra* note 27, at 280.

³⁶ VICTOR P. MOZOLIN, PROPERTY LAW IN CONTEMPORARY RUSSIA 10 (1993) (proposing a Soviet hierarchy of property rights afforded differing levels of protection at law).

³⁷ Art. 6, CONST. OF U.S.S.R. (1936) (defining state socialist property) and MOZOLIN, *id.* (explaining state property could not be used as security and was inalienable).

³⁸ Art. 7, CONST. OF U.S.S.R. (1936) ("The enterprises of collective farms and cooperative organizations, with their livestock, buildings, implements, and output are the common, socialist property of the collective farms and cooperative organizations. ..."). *See also* W.E. BUTLER, SOVIET LAW 169-176 (1983). Cooperatives were later disfavored and agricultural holding limited to state farms and collective farms until the re-institution of cooperatives under *perestroika*. Law of the U.S.S.R. "On Cooperatives," June 1, 1988, *VED. SSSR 1988*, no. 22, item 355, in INTERNATIONAL LEGAL MATERIALS, VOL. 28 723-753 (William G. Frenkel trans., 1989), *excerpted in Zile, SOVIET LEGAL HISTORY, supra* note 27 at 507. *See also* Art. 8, CONST. OF U.S.S.R. (1936) (permitting a *kolkhoz* to occupy its land free of charge and in perpetuity).

³⁹ Art. 10, CONST. OF U.S.S.R. (1936). *See also* MOZOLIN, *supra* note 36, at 10-11.

⁴⁰ Butler, *supra* note 38, at 174.

members of agricultural collectives⁴¹), but by the end of 1929, the Party abandoned voluntary participation and kicked off a campaign of mass collectivization.⁴² In two intense months, Ukrainian landholding went from 16% collectivized to 64%.⁴³

Behind these dry figures stands dramatic change involving widespread violence, most recognizably, acts of straightforward physical violence. In January 1930 the Politburo issued a secret decree directing urban Party members to the countryside to effect "*dekulakization*," the "liquidation" of rural small-holders (so-called "kulaks") by February 20, 1930.⁴⁴ *Dekulakization* meant seizing assets from small-holders who were then either put into detention, sent into exile or prison in Siberia, or killed on the spot.⁴⁵ Some rural small-holders got wind and fled in so-called self-*dekulakization*. Through these processes of exhortation combined with *dekulakization*, dairying was also socialized: by January 1, 1932 (U.S.S.R.-wide), there were 20,811 dairy collectives with a total herd of 3,334,000 cattle.⁴⁶

Production and distribution through the new collectives fell catastrophically short.⁴⁷ In 1932, to address dairy shortfalls, the Soviet government created a new type of organization, the

⁴¹ DAVIES, COLLECTIVIZATION, *supra* note 31, at 112, 147; KAK LOMALI NEP 2, 8 STENOGRAMMI PLENUMOV TsK VKP(B), 1928-1929, VOL. 5 (V.P. Danilov et al. eds., 2000).

⁴² Decree of the Central Committee of the Communist Party (hereinafter CC of CP) "On the Pace of Collectivization and State Assistance to Collective-Farm Construction," Jan. 5, 1930, CPSU IN RESOLUTIONS AND DECISIONS OF CONGRESSES, CONFERENCES, AND PLENUMS OF THE CENTRAL COMMITTEE, VOL. 5, 72-75 *reprinted in* Viola, WAR ON PEASANTRY, *supra* note 30, at 201 (calling for "wholesale" (*sploshnaia*) collectivization, meaning no less than 75% of every village).

⁴³ Timothy Snyder, Professor of Modern Central European history at Yale University, lecture at Yale University, New Haven, Conn. (November 8, 2005) (reporting the rate of collectivization between January and mid-March 1930).

⁴⁴ Politburo Decree "On Measures for the Liquidation of Kulak Farms in Raions of Wholesale Collectivization," Jan. 30, 1930, Russian Government Archive of Social and Political History f. 17, op. 162, d. 8, ll. 64-69 *reprinted in* Viola, WAR ON PEASANTRY, *supra* note 30, at 228-234.

⁴⁵ See the implementing order of the secret police (the OGPU), OGPU Order on Measures for the Liquidation of the Kulak as a Class, February 2, 1930, No. 44/21, GARF f. 9414, op. I., d. 1944, ll. 17-25. *reprinted in* Viola, *id.* at 238-245.

⁴⁶ U.S. Dep't Agric., Bureau Agric. Econ., Div. Foreign Agric. Service, *Russian Collective Dairy Farming*, 24 FOREIGN CROPS AND MARKETS 478-79 (1932) *quoting* SOCIALIST AGRIC. (Feb. 26, 1932), *cited in* AGRIC. ECON. BIBLIOGRAPHY entry 385 at page 91 (U.S. Dep't Agric., Bureau Agr. Econ., 1937).

⁴⁷ DAVIES, COLLECTIVIZATION, *supra* note 31, at 104-05.

"commercial dairy farm" (known by its abbreviation from Soviet Russian, the MTF). An MTF might operate as a branch of a collective farm working on other kinds of agriculture and or it might coordinate efforts between dairy-producing collective farms. Either way, the MTFs were tasked with supervising and rendering assistance to dairy units of the collectives.⁴⁸

While on one hand Soviet authorities were attempting organizational innovations like MTFs to facilitate production, on the other, the violence attending collectivization was thwarting them. Beyond the physical violence of *dekulakization*, structural violence was manifest in mass confiscation of rural foodstuffs by state agents.⁴⁹ Recall that a primary impetus for collectivizing agriculture was to facilitate the state collecting grain from the countryside. In rural Ukraine, state agents collected grain even if it took confiscation, producing in rural residents "visible confusion and 'lostness'" and a palpable sense of "unknowability" regarding "what will become of them" as hunger and desperation loomed.⁵⁰

Under these conditions, some rural residents hid grain and slaughtered their cows. Evidence suggests it was to avoid starvation, although at the time the Soviet leadership suspected peasants of

⁴⁸ U.S. Dept. Agr., *supra* note 46, quoting 3 SOCIALIST RECONSTRUCTION AGRIC. 1931, cited in AGRIC. ECON. BIBLIOGRAPHY *supra* note 46 at 91.

⁴⁹ For discussion of structural violence, see Johan Galtung, *Violence, Peace, and Peace Research*, 6 *J. PEACE RES.* 167 (1969). On the distinction between the physical exertions of political and everyday violence on one hand, and structural violence on the other, see Philippe Bourgois, *The Power of Violence in War and Peace: Post-Cold War Lessons from El Salvador*, 8 *ISTMO* (2004) <http://istmo.denison.edu/n08/articulos/power.html>.

⁵⁰ A January 1933 mission in central Ukraine, reporting back to the Central Committee on local reception of rural grain seizure, found that neither notification about impending grain seizure nor the actual carting off of grain had met "active protest": "This measure is generally accepted in silence. But," it continued, "when you have become more attentively acquainted with the moods of individual collective farmers, you see that this operation has acted upon them *en masse* in an overwhelming, depressing way. Among a significant portion of collective farmers it produces a visible confusion and 'lostness,' a fundamental unknowability of what will happen next, of what will become of them." Grigoriev, Head of Dep't of Mass-Agitation Campaigns of the Central Committee of the Communist Party (Bolshevik wing) of Ukraine (hereinafter CC CP(B)U), Rep. of the Dep't of Mass-Agitation Campaigns of the CC CP(B)U "On the Mood of the Population of Velikotokmak and Bozhedariv Districts of Dnipropetrovsk Oblast, in Connection with Confiscation of the Seed Fund into the Requisitioned-Grain Account," Archives CC of CP Ukr., F.1. Op. 101. Spr. 1244. Ark. 2-5, Jan. 8, 1933, available at <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 140 (translation my own).

killing cattle to avoid surrendering them to the new collectives.⁵¹ Authorities used the law to clarify the situation and bring the hammer down. In regard to livestock and other assets funneled into the new collective entities, in addition to what was literally "state property," collective farm or cooperative property would also be considered "public property" and as such would be legally held to be "sacred and inviolable" and protected as strictly as if it were the state's own property.⁵² Farmers' consuming the produce they grew, livestock they raised, or milk they collected would be considered theft.

Severe confiscations compounded the physical violence of the collectivization campaign. Within two harvests after its start, 10% of the Ukrainian population (by conservative estimates) would die from famine: of a Soviet Ukrainian population of 33 million, an estimated minimum 3.5 million starved to death between 1932 and 1933 alone.⁵³ With food requisitioned for urban consumption, mortality fell harder on the countryside, village death tolls far exceeding the 10% average. Some Ukrainian villages were completely depopulated in this short period that has come to be known as the *Holodomor*, or Famine.

⁵¹ Decree of CEC and CPC "On Measures to Combat Rapacious Slaughter of Livestock," Jan. 16, 1930, SOBR. POST. PRAV. SSSR 1930, no. 6, item 66, *reprinted in* Zile, SOVIET LEGAL HISTORY, *supra* note 27, at 213.

⁵² The CEC and CPC of the U.S.S.R. "hold public (state, collective farm, cooperative) property to be the foundation of the Soviet system. They regard such property as sacred and inviolable, and all persons making any attempts on its integrity -- as enemies of the people. In view of this, it is the foremost duty of the Soviet authorities to wage a decisive struggle against misappropriators of public property. ... [They hereby decree] ... To equate collective farm and cooperative property (harvestable crops, common reserves, livestock, cooperative warehouses and stores, etc.) with state property and to intensify the protection of such property from misappropriation." Decree of CEC and CPC "On Protecting and Strengthening Public (Socialist) Property," Aug. 7, 1932, U.S.S.R. Decrees 1932, no. 62, item 360, *reprinted in* Zile, SOVIET LEGAL HISTORY, *supra* note 27, at 265, 265-66.

⁵³ Total registered deaths (which likely reflects under-reporting) for 1931-33 in Ukraine is 3,091,809, reflected against a estimated 1930 population of 28,710,628. See R.W. Davies' latest calculation at www.soviet-archives-research.co.uk/hunger. Davies and Wheatcroft, adjusting for statistical birth and death rates, estimate 1.54 million "excess deaths," i.e. people who died from famine who would not otherwise have died at that time, in 1932-1933 alone in Ukraine. R.W. DAVIES AND STEPHEN G. WHEATCROFT, *THE YEARS OF HUNGER: SOVIET AGRICULTURE, 1931-1933* 415 (2004).

B. Socialized Cows and Household Survival

1. Milk and Famine

a. Dairy, Distribution, and Directives

Within the context of the Famine that accompanied collectivization in the early 1930s, dairy took on particular significance in the Ukrainian countryside. Milk, like grain, was subject to requisition and a peculiar form of scarcity took hold in rural areas.⁵⁴ The new collective farms introduced a compensation system including a unit, the normative "workday,"⁵⁵ as a standard measure for labor effort⁵⁶ and terms of trade in the new compensation system shifted disastrously against the Ukrainian villager. One "workday" of a Ukrainian collective farmer was pegged at a value⁵⁷

⁵⁴ The Ukrainian Famine of the early 1930s was, in Amartya Sen's terms, a case of "food entitlement decline": even when food was available -- farmers had grown it -- they were not entitled to it and thus starved. AMARTYA SEN, *POVERTY AND FAMINES: AN ESSAY ON ENTITLEMENT AND DEPRIVATION* (1981).

⁵⁵ *Trudoden*, "workday," as a unit of measure for labor on collective farms, introduced in law in Model Rules of the Agricultural Artel (Collective Farm), approved by Decrees of CEC and CPC, March 1, 1930 and of April 13, 1930 and by resolution of the Kolkhoztsestr SSSR [USSR Collective Farm Center] of June 7, 1930, USSR Decrees 1930, no. 24, item 255, reprinted in Zile, *SOVIET LEGAL HISTORY*, *supra* note 27, at 207 [hereinafter Model Charter] (instituting, *inter alia*, the "workday" compensation-accounting system).

⁵⁶ See text *infra* notes 85-88 for more full discussion of the "workday" and its role in post-War collectivization of dairy production.

⁵⁷ Records from the time of the Famine show one "workday" of a collective farmer in Ukraine evaluated as being worth roughly 3 rubles. See, e.g., P. Lyubchenko, deputy head of the CPC of Ukr. S.S.R. and P. Postishev, Secretary of CC CP(B)U, [Resolution of the CC CP(B)U and CPC of the Ukr. S.S.R. "On the removal of Kamenniy Potolok village, Kremenchug district, Kharkov region from the 'Black Board'" Oct. 17, 1933 (archived Nov. 9, 2017) Archives of the CC CP Ukr., F.1, Op. 6, Spr. 285, Ark. 144-145, available at <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 246.

insufficient to purchase a liter of milk.⁵⁸ In other words, even had it been market-available, milk would have been beyond the purchasing power of the farmers on collective farms producing it.

At the height of the Famine, some local authorities in Ukraine attempting to save rural people from starvation officially turned to the dairy herd. The winter of 1932-33 had decimated villages. By early spring 1933, amidst masses of people in the countryside so staggered by hunger that they lay where they fell, local officials ordered district agents to collect those "found laying down," hospitalize them, and try to fatten them up -- or at least stave off the final throes of starvation (particularly, it seems from internal communications, to save enough bodies to get labor into fields for spring planting). To do this, they temporarily suspended milk requisitions from collective farms. "In view of the exceptionally difficult food situation in Skvytsky, Belotserkovsky and Volodarsky districts," as one local government order in Ukraine in March 1933 reads, "we hereby suspend the requisition of milk by state procurement agents in these areas, in order to turn it to elimination of the manifestation of starvation, to be used exclusively for the feeding of children and the hospitalized ill."⁵⁹ A March 1933 order from Kyiv district obliged Party workers to organize assistance to starving children in the form of milk provision "so that each child would receive half a glass" daily.⁶⁰ Another demanded a "norm" of

⁵⁸ Milk in 1933 cost 4.5 rubles per litre. M. Khataevych, Secretary of the Oblast' Comm. CP(B)Ukr., Supplementary note of the Dnepropetrovsk Regional Party Comm., People's Commissariat of Supply of the USSR, and the CC CP(B)U "On Deterioration of the Food Supply of Industrial Enterprises of the Region and Measures for the Implementation of Plans for Centralized Delivery of Food," March 21, 1933, Archives of the CC CP Ukr. F.1, Op. 1, Spr. 2187, Ark. 103-107, *available at* <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 198 (giving the price for a liter of milk as 4 rubles 50 kopeks).

⁵⁹ Demchenko, Secretary of Oblast' Comm. CP(B)U, Decision of the Kyiv Regional Committee of the CP(B) "On the Provision of Milk Assistance to Children and the Ill in in Skvytsky, Belotserkovsky and Volodarsky Districts of the Oblast," March 18, 1933, Archives of the CC CP Ukr., F.1, Op. 1, Spr. 2189, Ark. 172, *available at* <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 193.

⁶⁰ "Oblige the RPK to organize assistance to desperate children in the form of milk, so that each child would receive a half a glass of milk daily." Demchenko, Secretary of the Oblast' Comm. CP(B)U, Resolution of the Kyiv Oblast' Comm. of the CP(B)U "On Strengthening Party, Soviet, and Economic Organs, On the Rendering of Food Assistance to the Population and On the Responsibility of Leaders for the Realization of these Measures," March 19, 1933, Archives of the CC CP Ukr.,

700-800 calories per day be reached for each child but did not allocate food relief, instead declaring that milk, eggs, and other products of animal husbandry "can and must be mobilized on site."⁶¹

b. Model Rules and Milk Memoirs

Milk thus played a role in official Famine responses. It also proved key to household survival strategies. Crucially, not all cattle, or milk, had been incorporated into the collectives. The state promulgated a Model Code for collective farms that allowed any rural household who had dairy cattle before collectivization to retain one cow for household use.⁶² As local authorities initiated emergency measures in the face of mass starvation, officials exhorted villagers to rely on "internal food resources," significantly among them local milk.⁶³

Villagers needed little urging. Memoirs of the Famine reflect the importance of that single cow to a household struggling to survive. One grandmother from Zhytomir oblast, for example, recalls how fellow villagers, unable to withstand hunger, slaughtered their cows for meat and subsequently starved, while her family refrained and survived on their cow's milk.⁶⁴ Another remembers at

F.1, Op. 1, Spr. 2190, Ark. 1-2, *available at* <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 194.

⁶¹ Kharmandaryan, Deputy People's Commissar of Health of the Ukr. S.S.R., Supplemental Note of the People's Commissariat of Health of the Ukr. SSR CC KP(b)U "On the State of the Health of the Population of Kyiv region in Connection with Food Difficulties," June 3, 1933, Archives of the CC CP Ukr., F.1, Op. 1, Spr. 2130, Ark. 41-47 *available at* <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, record no. 232.

⁶² "Milk cows of single-cow households are not socialized. In multi-cow households, one cow is left in personal use; the rest are socialized . . ." Model Charter, *supra* note 55, at 207. The 1936 Soviet Constitution reenforced this one-cow per household allowance. Art. 7, CONST. U.S.S.R. (1936).

⁶³ *See, e.g.*, Resolution of the CC CP(B)U "On the Approach for Preparing for Spring Sowing and Organization of Food Aid to the Population of Kyiv Region," sect. 9(d), March 31, 1933, Archives of the CC CP Ukr., F.1, Op. 6, Spr. 282, Ark. 107-110], *available at* <https://www.archives.gov.ua/Sections/Famine/Publicat/Fam-Pyrig-1933.php#nom-246>, at record number 204 (urging Kyiv regional officials to undertake emergency aid, including to "strengthen local initiative . . . in the search for internal food resources (milk, eggs for children, etc.)").

⁶⁴ Oleksiy Hordiev, *A Cow, in* "LET ME TAKE THE WIFE TOO, WHEN I REACH THE CEMETERY SHE WILL BE DEAD": STORIES OF HOLODOMOR SURVIVORS (Euromaidan Press, Nov. 24, 2018) <http://euromaidanpress.com/2018/11/24/let-me-take-the->

age ten surviving (after her mother's death and father's exile to Siberia) thanks only to milk from the family cow. She and her sister grew so skinny that it was painful to sit because they were "all bone," reduced to hiding their milk jar from hunger-stricken neighbors, but "the milk saved me."⁶⁵ A villager from central Ukraine, Havrylo Prokopenko, recalls of his boyhood:

We . . . shared joint ownership of a cow with Lina the seamstress. We fed and milked her on alternate days. The cow lived in our adobe block shed. On the street side of one of its white walls was a sign written in red clay: "The struggle for grain is a struggle for socialism." Zirka was a dry cow and gave little milk, but it was tasty and had a high fat content. The shed had heavy oak doors covered with an iron grate and a screw lock. . . .

By springtime . . . thanks to God, we were alive. But in the village and all around us an apocalypse was unfolding. Almost every day the bodies of people who had starved to death were transported past our house on the way to the cemetery ...

Disaster struck the day after Easter [1933]...

Havrylo opened the door of the shed and found Zirka gone. Half of the wall with the sign had been smashed onto the road. The boy was then accused at rifle-point by the village council secretary of having sold the cow (which as kulak-like behavior could have put his life in jeopardy), but was exonerated when, the following day, "they found Zirka's head and hide, and a bucket of lard. Our 'good' neighbours [sic] had stolen the cow and slaughtered it."⁶⁶

wife-too-when-i-reach-the-cemetery-she-will-be-dead-stories-of-holodomor-survivors/ (recalling a grandmother from Pylyponka, Zhytomyr Oblast, who survived "thanks to a cow," unlike fellow villagers who couldn't stand the hunger and slaughtered their dairy cow for meat but then subsequently perished from hunger).

⁶⁵ Hilary Caton, *Holodomor Survivor in Burlington shares famine story*, BURLINGTON POST (Nov. 21, 2013) <https://www.insidehalton.com/news-story/4230737-holodomor-survivor-in-burlington-shares-famine-story/> (relating Famine survival memories from eastern Ukraine of survivor Maria Sagan).

⁶⁶ Havrylo Nykyforovych Prokopenko, *Eyewitness Testimony*, in HOLOD 33: NARODNA KNYHA-MEMORIAL 195-97 (Lidiia Kovalenko and Volodymyr Maniak comp., 1991).

Famine memoir, an emergent genre in post-Soviet Ukraine, captures paradigmatic features that distinguish Ukrainian from other experiences of Soviet collectivization. Soviet historiography left out the Ukrainian Famine; post-Soviet Ukrainian memoirs insist upon remembering and re-collecting it. They relate how, within an increasingly dire regime of food confiscation, milk provided a lifeline for several reasons. The household dairy cow was a legally permitted source of sustenance. Features inherent in dairy production -- daily harvest, the fragmented nature of its collection (individual cows milked separately, with milk going into individual buckets) -- made milk harder to monitor. Helping oneself was easier to pull off and, during severe caloric crisis, more difficult for the state to see and seize.⁶⁷

For all of its demographic disaster and trauma, collectivization took hold: by 1940, on the eve of World War II, 97% of Soviet farming worked collectively.⁶⁸ In Ukraine, for those who managed to survive its inception, the village collective's herd and household cow allowance proved significant both in dairy production and household survival, as the coming years of War and occupation would again show.

2. *Hungerpolitik*: Dairy under Wartime Occupation

Recuperation from the Famine over the last half of the 1930s was interrupted by the Nazi invasion of 1941.⁶⁹ All of Ukraine was occupied (and then, four years later, liberated), meaning that the front swept across Ukraine twice, first with Nazi attack and then with Red Army counter-attack. In retreat, both the Soviet (1941) and Nazi (1944-45) command ordered a "scorched earth" policy in regard to Ukrainian village agriculture. As Himmler instructed his troops, "It

⁶⁷ For the creation of collective farms as part of a modernist scheme of rural surveillance, see JAMES C. SCOTT, *SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED* 209-220 (1998).

⁶⁸ Zvi Lerman, Karen Brooks, Csaba Csaki, *Land Reform and Farm Restructuring in Ukraine*, 270 *World Bank Discussion Papers* 23 (1994) <http://documents.worldbank.org/curated/en/122021468109448366/pdf/multi-page.pdf> at 23.

⁶⁹ Adolph Hitler, *Reichfuhrer Adolph Hitler's Proclamation on War with Soviet Union* (Berlin, Germany, June 22, 1941) <http://www.ibiblio.org/pha/policy/1941/410622a.html> (statement of the Fuhrer of Germany declaring war on the U.S.S.R.); Joachim von Ribbentrop, *Statement by Joachim von Ribbentrop, German Foreign Minister, On the Declaration of War on the Soviet Union* (Berlin, Germany, June 22, 1941) <http://www.ibiblio.org/pha/policy/1941/410622b.html> (statement of the Foreign Minister of Germany on Hitler's declaration of war against the U.S.S.R.).

is necessary that in retreating from the regions of Ukraine we do not leave behind a single person, head of livestock or measure of grain ...⁷⁰

Once again, in addition to overt violence, the village was an object of structural violence through food policy. In areas under Soviet governance, the "workday" system was pressed into wartime service. The law specified a minimum number of obligatory "workdays" devoted to collective work per year and provided criminal sanctions to enforce it.⁷¹ Payment in-kind, i.e. in foodstuffs, to farmers was suspended. Food was once again subject to requisition; farmers were made to pay; and terms of trade again turned against rural Ukrainians.

In areas under German occupation, a different picture of rural-urban suffering emerged. Nazi forces exterminated a large portion of the civilian population⁷² and pressed others into forced labor in Germany. Of the remaining inhabitants, Nazi policy dictated that the Slavic subhumans, the *Untermensch* of Ukraine, would (still collectively) farm its steppe and feed Germany, at least for the duration of the war.⁷³

⁷⁰ Heinrich Himmler, *Reichsführer* of the SS, *quoted in* I. RYBALKA AND V. DOVHOPOL, *ISTORIIA UKRAINSKOI RSR: EPOKHA SOTZIALIZMU* 366, *cited in* SUBTELNY, *supra* note 13, at 477.

⁷¹ Resolution of the CPC of the U.S.S.R. and the CC of the All-Union CP(B), April 13, 1942 *cited in* *Trududen'*, WIKIPEDIYA [Russian-language Wikipedia], https://ru.wikipedia.org/wiki/%D0%A2%D1%80%D1%83%D0%B4%D0%BE%D0%B4%D0%B5%D0%BD%D1%8C#cite_ref-1 (last checked Feb. 7, 2020) [hereinafter *Trududen'* workday].

⁷² Current scholarship estimates 1.5 - 1.6 million Jewish citizens were killed in the Holocaust in Ukraine. Wendy Lower, *Introduction to Special Volume on the Holocaust in Ukraine: Selected Articles from Holocaust and Genocide Studies*, HOLOCAUST AND GENOCIDE STUD. 1, 2 (United States Holocaust Memorial Museum 2014) https://academic.oup.com/DocumentLibrary/HGS/holocaustinukraine_intro.pdf.

⁷³ *Reichskommissar* of Ukraine Erich Koch, upon his arrival in Ukraine in September 1941, told his staff, "Gentlemen, I am known as a brutal dog. Because of this reason I was appointed as *Reichskommissar* of Ukraine. Our task is to suck from Ukraine all the goods we can get hold of, without consideration of the feelings or the property of the Ukrainians. Gentlemen, I am expecting from you the utmost severity towards the native population." Erich Koch, German *Reichskommissar* of Ukraine, *quoted in* SUBTELNY, *supra* note 13, at 467; policy of adapting Soviet collective farming to German ends *summarized in* SUBTELNY, *id.* at 468-69.

In fact, food lay behind some of the Nazis' acquisitive military designs on Ukraine,⁷⁴ food policy and territorial acquisition interconnecting with Nazi racial ideologies. A Nazi goal of reducing dependence on food "imports" would be reached by expanding Germany's borders to encompass a larger "domestic" agricultural base (incorporating the rich "black earth" lands of central and southern Ukraine into Germany), through conquest.⁷⁵ Meanwhile, Nazi race theory considered inhabitants of Ukraine racially inferior "useless eaters" who, once defeated militarily, could be "dealt with" by lowering their food rations below subsistence levels.⁷⁶ After a "Holocaust by bullets," food confiscation was an intentional Nazi strategy for feeding its army and, through mass civilian starvation, for clearing Ukrainian territory for eventual resettlement by Germans.⁷⁷ As historian Gesine Gerhard puts it, the Nazis counted "without regret" on the "massive starvation" to come⁷⁸: under German occupation, food policy became *Hungerpolitik*, "hunger policy."

Indeed, of the food supplies that Nazi Germany obtained from the occupied U.S.S.R., an estimated 85% came from Ukraine.⁷⁹ Between military operations and starvation, the toll was beyond decimation: approximately one in six inhabitants of Ukraine perished.⁸⁰ In reverse of the pattern during the Soviet collectivization

⁷⁴ Gesine Gerhard, *Food and Genocide: Nazi Agrarian Politics in the Occupied Territories of the Soviet Union*, 18 CONTEMP. EUR. HIST. 45, 45 (2009) [hereinafter Gerhard, *Food and Genocide*].

⁷⁵ *Id.* at 55-56. See generally GESINE GERHARD, NAZI HUNGER POLITICS: A HISTORY OF FOOD IN THE THIRD REICH (2015).

⁷⁶ Gerhard, *Food and Genocide*, *supra* note 74 at 46 (outlining Backe's plans for feeding the German army and homeland during the war by starving Ukraine).

⁷⁷ On the "Holocaust by bullets," genocidal massacres at the time of invasion or shortly thereafter in which half a million people, the majority Jews, were shot within the first nine months of the war, see United States Holocaust Memorial Museum, *Einsatzgruppen: An Overview, From Security Measures to Mass Murder*, HOLOCAUST ENCYCLOPEDIA

<https://encyclopedia.ushmm.org/content/en/article/einsatzgruppen>. On starvation as a strategy, see Gerhard, *Food and Genocide*, *supra* note 74 at 58-59. See also Alex J. Kay, *Germany's Staatssekretäre, Mass Starvation and the Meeting of May 2, 1941*, 41 J. CONTEMP. HIST. 685, 685 (2006); Aktennotiz über die Besprechung der Staatssekretäre am 2.5.1941, *partially reprinted in* DER KRIEG GEGEN DIE SOWJETUNION 1941-1945. EINE DOKUMENTATION 44 (Reinhard Rürup ed., 1991).

⁷⁸ Gerhard, *Food and Genocide*, *id.* at 46.

⁷⁹ SUBTELNY, *supra* note 13 at 469.

⁸⁰ Figures are steadily revised upwards as historians do their forensic work. To give a general idea of scale, as of 1988 an estimated minimum 5.3 million inhabitants of Ukraine perished during the War, with some estimates ranging to 7 million, with an additional 2.3 million deported to forced labor in Germany. As of

Famine, this time cities were targeted first for starvation and their inhabitants fled, when they could, to the countryside.

During this ruinous time, again, milk provided a crucial reservoir of calories for Ukrainians. Milk did not feature prominently in the Nazis' schemes regarding provisions to be extracted from Ukraine. The time-sensitivity of milk spoilage may have made it less a target for rendering back to Germany than, say, crop harvests. Moreover, as during the Soviet collectivization-era Famine, milk was easier for peasants to conceal or consume directly after milking. That did not mean that dairy was exempt from wartime predations; for example, per German army policy, German troops routinely requisitioned rural households' dairy cows in order to provision themselves.⁸¹ It did mean that a household's access to milk raised the odds of possible survival if other stars also aligned.

Legal disputes from the War years offer an intimate look into the lifesaving significance of milk for rural households. Consider *Generalova v. Shagov*, a dispute that came before Soviet courts after liberation.⁸² During the occupation, German forces demanded six cows of a village; owners of two cows agreed that one (Ms. Generalova's) would be surrendered and the other (Mr. Shagov's), milked by the two households and the milk, shared. After liberation from German occupation, Mr. Shagov refused to continue the milk-share arrangement; the householder who had surrendered her cow to the occupying forces for the common good, Ms. Generalova, brought suit. The parties pursued the case up to the Supreme Court of the U.S.S.R. which affirmed the trial court judgment for Generalova, reasoning with an almost Coasian logic that villagers entered into the agreement "to distribute equally, to the extent feasible, the burden of the forcible extortion by the Germans" and thus "it corresponded to the interests not only of those who gave up their cow to meet the German demands, but also of those who kept in their possession cows for the benefit of the owners who had to give theirs away."⁸³

2014 historians estimated that an additional minimum of 1.5 million from Ukraine were murdered in the Shoah. SUBTELNY, *id.* at 479 (giving casualty tolls aside from the Shoah); Lower, *supra* note 72 (giving figures of those citizens of Ukraine murdered in the Holocaust).

⁸¹ On the policy for troops to feed themselves from the Ukrainian countryside, formulated during a meeting of top war-planning bureaucrats on May 2, 1941, see Gerhard, *Food and Genocide*, *supra* note 74 at 58–59; Kay, *supra* note 77 at 685.

⁸² The case, though from a village in Russia, offers a fact pattern illustrative of the Ukrainian experience as well.

⁸³ *Case of Generalova v. Shagov*, Civil Division of the Supreme Court of the U.S.S.R., 1943, in 4 *SUDEBNAIA PRAKTIKA VERKHOVNOGO SUDA SSSR, 1943* 31-32,

C. Cattle and Dairy in High Socialism

1. Collectivization in Legal Imagination and in Practice

After World War II, the structures of collectivism were harnessed to incentivize production for post-war reconstruction in new ways. As already discussed, the state's "Model Charter for Collective Farms" contained a one-cow provision⁸⁴ that secured the household milk supply to which many who made it through Famine and the War owed their survival. Recall also that the Model Charter had introduced a unit of measure for collective farm labor, the *trudoden'*, a standardized "workday," for calculating compensation, pegging different farm tasks to different numbers (or portions) of "workdays" earned based on level of difficulty, skill, or prior training required.⁸⁵ An individual's "workdays" were recorded weekly,⁸⁶ with collective farm proceeds divided up annually proportionate to each member's accrued "workdays."⁸⁷ The milkmaids' "workday" aligned with output; in 1956, for example, a milkmaid accrued 1.8-2

reprinted in Zile, SOVIET LEGAL HISTORY, *supra* note 27, at 329.

⁸⁴ Model Charter, *supra* note 55. See also text *infra* notes 55-57.

⁸⁵ See Model Charter, *id.* Discussion here is also informed by the *Trudoden'* workday entry, *supra* note 71. See also text *infra* notes 55-57 and *infra* note 71 for discussion of the "workday" in the context of the Famine and World War II, respectively.

⁸⁶ The system encouraged labor zeal by recognizing both its service to group aims and the individual's heroic feats of labor. See, e.g., LEWIS H. SIEGELBAUM, STAKHANOVISM AND THE POLITICS OF PRODUCTIVITY IN THE U.S.S.R, 1935-1941 (1988) (describing the movement inspired by a heroic Donbas (Ukraine) coal miner. See also R.W. DAVIES, THE INDUSTRIALIZATION OF SOVIET RUSSIA, VOL. 2, THE SOVIET COLLECTIVE FARM, 1929-1930 (1980); SHEILA FITZPATRICK, STALIN'S PEASANTS: RESISTANCE AND SURVIVAL IN THE RUSSIAN VILLAGE AFTER COLLECTIVIZATION (1994); MARY BUCKLEY, MOBILIZING SOVIET PEASANTS: HEROINES AND HEROES OF STALIN'S FIELDS 115133 (2006) (describing collective farming labor practices patterned after heavy industry). See generally OLEG KHARKHORDIN, THE COLLECTIVE AND THE INDIVIDUAL IN RUSSIA (1999) (describing conditions of possibility within Soviet labor collectives for the development of a certain kind of individual).

⁸⁷ Obviously, this compensation system was disastrously disrupted by the forced requisitioning of foodstuffs that precipitated mass famine in Ukraine. Adopting the "workday" as a unit of measure obviated the need for cash to enter into the "mutual settlements" (взаиморасчёты) internal to the collective farm. See *Trudoden'* workday, *supra* note 71. Excluding cash payments increased the corresponding importance of internal grain distribution and thus increased collective farmers' vulnerability to external (state) grain confiscation. See Part III.A. *supra* (describing mass commodity seizures and Famine in Ukraine 1930-33).

"workdays" for every 100 liters of milk (which entailed, generally, her milking 8-10 cows).⁸⁸

These and other measures were meant to foster collectivized subjectivities through collective responsibility. Another decree provided that a collective farmer's income be based on the productivity of her work "brigade" and of a new inter-brigade unit called the *zveno*, or "link,"⁸⁹ predicating individual compensation on group performance. Milkmaids' brigades, too, were linked; in collective farm milk production, they were in it together. The law eventually permitted individual collective farms some latitude in setting compensation rates⁹⁰ and the "workday" as a normative unit of measure was eventually replaced in 1966⁹¹ by fixed compensation

⁸⁸ "For hand milking in the collective farm for every 100 liters of milked milk a milkmaid receives on average 1.8-2 workdays (for the servicing of 8-10 cows)." V.A. Olenev, Yu. I. Belyaevskiy, researchers in the laboratory of the All-Union Scientific-Research Institute of Electrification of Agriculture, "Effectiveness and Benefits of "Milking Sites" (1956), *reprinted at Istoriya doeniya* [History of Milking], *available at* http://agrotehimport.ru/national_history_of_dairy_equipment_ussr/effektivnosti_i_preimushhestva_doilnyx_ploshhadok/ [hereinafter Olenev and Belyaevskiy, Milking Sites].

⁸⁹ Decrees of the Council of Ministers of the U.S.S.R. "On Measures for the Improvement of the Organization, Raising the Productivity, and Streamline Payment of Labor on Collective Farms," April 19, 1948 *cited in* G.A. AKSENEVOK, V.K. GRIGOR'EV, P.P. PYATNITSKIY, COLLECTIVE FARM LAW, CH. IX Legal forms of organization and payment of labor on collective forms, §4 Payment of Labor, *available at* <http://istmat.info/node/23766> (providing for the *zveno*, or "link," organization).

⁹⁰ Decree of CC of CPSU and Council of Ministers of the U.S.S.R., March 6, 1956, *cited in Trudoden'* workday *supra* note 71 (allowing each collective farm to set its own minimum number of "workdays"); *see also* Charter of Agricultural Cartel, Art. 11 (1956), *described in* entry for Dokhody kolkhozov ["Income of Collective Farms"] FINANSOVYI-KREDITNIY SLOVAR' TOM I 406 (V.P. D'yachenko ed., 1961) 406, *available at* <https://economy-ru.info/page/015051140096162202142062081044017249179120054120/> (allowing collective farms, after having fulfilled annual obligations to the state, flexibility to distribute the collective income in a manner decided by a group meeting of all farmers). Some farms formed cash and in-kind funds to be distributed to individuals as a monthly advance, with a final settling of work accounts at the end of the year. *Trudoden'* workday, *supra* note 71.

⁹¹ Decree of the CC of the CPSU and the Council of Ministers of the U.S.S.R., "On Raising the Material Interestedness of Collective Farmers in Development of Societal Production," May 18, 1966, *discussed in* Sergey Ivanovich Shubin, *Istoriya Trudodnya (1930-1966) Kak Mery Truda I Instrumenta Yevo Stimuliravaniya* 31, 34 (at text *infra* his note 10) *available at* <https://cyberleninka.ru/article/n/istoriya-trudodnya-1930-1966-kak-mery-truda-i-instrumenta-ego-stimulirovaniya/viewer>. *See also, e.g.,* Rekomendatsii po oplatye truda v kolkhozach Ukrainskoi SSR 107 (Kiev, 1977).

rates more like wages (like those already used on state farms),⁹² though the "link" unit persisted.⁹³

In milkways, such organizational forms of high socialism left surviving legacies. Milking workers had long since emerged as a gendered cohort. Though not exclusively performed by women, normatively milking was "women's work": something women were considered better at and better suited to, and as a practical matter, under a near-monopoly of milkmaids,⁹⁴ who became a distinct and privileged labor and social group within the collective farm.⁹⁵ The collectivist practices of high socialism intensified relationships between village milkmaids working in the collective farm dairy, establishing and reenforcing patterns of cooperation, pressure, support, and self-organization that left their imprint on milkmaid cohorts in Ukrainian villages long after the "workday," or even the collective farms, had disappeared. The "workday" also left a lasting legacy in its influence on the adoption of mechanized milking (or lack thereof), which the next subsection briefly describes.

2. Milk Dreams: Reconstruction, State Science, and the Limits of Big Agriculture

a. Cattle Feed and Consumption

Premier Khrushchev in 1958 promised to raise U.S.S.R. agricultural production over capitalist countries⁹⁶ and linked

⁹² Shubin, *id.* at 34-35 (decrying abolition of the workday as leading to the eventual demise of the collective farm) and at 32 (calling for a more "objective" reappraisal of the workday).

⁹³ On Khrushchev's enthusiasm with "links" and further literature on them, see GEORGE BRESLAUER, *KHRUSHCHEV AND BREZHNEV AS LEADERS* 94 (1982).

⁹⁴ This gendered division of labor, with women primarily responsible for milking, has lasted to the present. "Rural women are key players in milk production as they are largely responsible for cow milking and care." Improving Milk Supply in Northern Ukraine, FAO Investment Center/EBRD Cooperation Program Report Series, no. 18 at xiii (September 2013), <http://www.fao.org/3/a-i3346e-pdf> [hereinafter FAO/EBRD Report No. 18].

⁹⁵ Soviet Ukrainian milkmaids typically earned more than their counterparts in the *intelligentsia* and, like (mostly male) tractor and combine drivers, were privileged to purchase cars and imported clothes at special stores in the district center reserved for *nomenklatura*. Oksana Hasiuk, personal communication, Jan. 3, 2020.

⁹⁶ *Control Figures for the Economic Development of the U.S.S.R., 1959-1965: Theses of N.S. Khrushchov's Report to the Twenty-First Congress of the CPSU*, at 7-8, 9-10, 11-12 (1958), excerpted in Zile, *SOVIET LEGAL HISTORY*, *supra* note 27, 383, 384.

increasing production with restoring consumption. As the Program of the Communist Party of the Soviet Union of 1961 promised, "In the current decade (1961-70) the Soviet Union ... will surpass the strongest and richest capitalist country, the U.S.A. ... ; everyone will live in easy circumstances; all collective and state farms will become highly productive and profitable enterprises ... "⁹⁷

Where before and during the War collectivization had organized the countryside in a way visible to the state and thereby facilitated seizing foodstuffs,⁹⁸ in decades after the War, emphasis switched to facilitating delivery of knowledge and other inputs, including applied agricultural science, considered crucial to the drive to enrich Soviet consumption. One example is cattle feed. During World War II, Soviet scientists had begun large-scale production of single-celled protein (SCP)⁹⁹ from microbial biomass to meet human protein needs.¹⁰⁰ The Soviet Council of Ministers decided in 1960 to pursue SCP as a source of protein-rich animal feed additive¹⁰¹ and set up a new administration, the Main Administration of the Microbiological Industry, to organize efforts.¹⁰² By 1990, U.S.S.R.-wide production of SCP was reported at 1,680,000 tons, roughly equivalent to the addition of 8.4-11.8 million tons of grain to feed supplies.¹⁰³

b. Mechanization: Losing Time, Losing Touch

⁹⁷ Program of the Communist Party of the Soviet Union Adopted by the Twenty-Second Congress of the CPSU, Oct. 31, 1961, *excerpted in Zile, SOVIET LEGAL HISTORY*, *supra* note 27, at 384, 385.

⁹⁸ See Parts III.B.1. and III.B.2, *supra*; see also SCOTT *supra* note 67 (interpreting measures like collectivization as ways of making the countryside legible to the state).

⁹⁹ Single cell protein was called in Russian "protein-vitamin concentrate," (*belok-vitamin konsentrat*, or BVK for short).

¹⁰⁰ Anthony Rimmington, *Soviet Biotechnology: The Case of Single Cell Protein*, in *TECHNICAL PROGRESS AND SOVIET ECONOMIC DEVELOPMENT 76* (R. Amann and J. Cooper eds., 1986).

¹⁰¹ A.E. Humphrey, *Soviet Technology: the Case of Single Cell Protein*, 23 *SURVEY* 102:81 (1977-78).

¹⁰² Resolution of the Council of Ministers of the U.S.S.R., "On the Development of Microbiological Industry and on the Administration of that Industry," Feb. 18, 1966, in 6 *DECISIONS OF THE PARTY AND GOVERNMENT ON AGRICULTURAL QUESTIONS* (1968) at 19-21.

¹⁰³ ANTHONY RIMMINGTON & ROD GREENSHIELDS, *TECHNOLOGY AND TRANSITION: A SURVEY OF BIOTECHNOLOGY IN RUSSIA, UKRAINE, AND THE BALTIC STATES* 12 (1992).

While the state intensively applied science and industry to livestock husbandry in attempt to expand meat and milk production, the milking process itself remained stubbornly un-industrialized. Although engineers designed devices to mechanize milking,¹⁰⁴ even disseminating detailed disinfection instructions,¹⁰⁵ milking machines themselves remained rarely used and dairying remained literally in the hands of milkmaids. As of the mid-1950s, compared with an estimated 50% use in the West, only 30,000 milking machines had been procured for 3 million dairy cows across the U.S.S.R. -- and of those, less than an estimated one-fifth (that is, a maximum 6,000 machines for 3 million cows) were in actual operation.¹⁰⁶

Why did milking resist mechanization? In 1956, two agricultural machinery designers from the All-Union Scientific-Research Institute of Electrification of Agriculture undertook to answer that very question.¹⁰⁷ Their analysis is a remarkable resource, affording a contemporaneous view of sociological and organization features of Soviet dairying under high socialism and revealing how bovine subjectivity -- considerations like cow comfort, preferences, or well-being -- feature in their situational awareness. A few exemplary points:

- Machines made milkmaids' and cows' lives worse, imposing a "whole series of manual operations" that milking by hand did not entail¹⁰⁸ while failing to accommodate adequate care for cows. For example, on a mass-production line a

¹⁰⁴ See, e.g., Milking system Milk pipeline-100, Milk pipeline-200 "Daugava" brand: Operation and maintenance manual (1966) (operation and maintenance manual for a milk machine for 100 head of cattle produced in the Latvian S.S.R. intended for use in milk operations across the U.S.S.R.), *description of holding in Russian State Library available at* <https://search.rsl.ru/ru/record/01008921371>. See also, e.g., Milk pipeline 100 head restored, <https://molservis.com.ua/p1267456-molokoprovod-100-golov.html> (showing images of a restored "Milk pipeline-100" system, the piping system for a milk machine serving 100 head, currently for sale on the used agricultural products market in Ukraine) (last visited Feb. 8, 2020).

¹⁰⁵ See, e.g., Sanitary Rules for Care of Milking Stations, Apparatuses, and Milk Dishes, for Monitoring their Sanitary Condition and the Sanitary Quality of Milk, confirmed by the Head of the Veterinary Administration of the Ministry of Agriculture of the U.S.S.R. and with the agreement of the Head of the Sanitary-Epidemiological Administration of the Ministry of Health of the U.S.S.R., Jan. 12, 1967 *available at* <http://www.alppp.ru/law/hozjajstvennaja-dejatelnost/selskoe-hozjajstvo/62/sanitarnye-pravila-po-uhodu-za-doinnymi-ustanovkami-apparatami-i-molochnoj-posudoj-kontrol.html>.

¹⁰⁶ Olenev and Belyaevskiy, *Milking Sites*, *supra* note 88.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

milkmaid could no longer wash her cow's udder with clean, warm water as soon as she was finished milking, but rather washed udder after udder "out of the same bucket of rapidly cooling water."¹⁰⁹

- Existing spatial arrangements catered to cows and milkmaids, not machines.¹¹⁰ Making architecture work for the piping systems, washing rooms, and other parts of the mechanized milking system would reconfigure space in ways less cozy, comfortable, or convenient for cows and milkmaids.
- Mechanization violated rhythms and temporality best suited to cows and milkmaids. Tending multiple cows at a machine required a milkmaid interrupt herself and cow to empty milk from bucket, adversely affecting "both the process of uniform milking and the condition of the animal."¹¹¹ Milkmaids milking by hand worked in rhythm and cows fed in rhythm; machines meant some finished earlier, throwing the work collective out of sync and "violating the general feeding rhythm of the herd. . ." ¹¹² Moreover, a stationary milking installation "[could not] be used in summer camps or in pastures," keeping all indoors during the glorious temperate months.
- Machines played havoc with milkmaid compensation. Equipment could malfunction; the electricity supply, prove inconsistent; or milkmaids, "lose a lot of time on transitions and downtime,"¹¹³ all of which, along with measuring malfunctions, occurred at the expense of milkmaid compensation.¹¹⁴ Mechanization would decrease compensation-per-liter by a third (from 1.8-2 "workdays" accrued for every 100 liters hand-milked¹¹⁵ to 0.6-0.4 "workdays" for every 100 liters machine-milked).¹¹⁶ Despite techno-optimists urging slow transition in "workday" evaluation norms¹¹⁷ lest milkmaids simply refuse to adopt milking machines,¹¹⁸ milkmaids and machines got off on the

¹⁰⁹ Olenev and Belyaevksiy, *Milking Sites*, *supra* note 88.

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* (which entailed, generally, "serving" 8-10 cows).

¹¹⁶ *Id.* (which involved "serving" 40-50 cows").

¹¹⁷ *Id.*

¹¹⁸ *Id.*

wrong foot, and at least some of that seems attributable to milkmaids' understanding of machines' future effects on compensation.

- Mechanized milking could thus create perverse incentives for the milkmaid-turned-machine operator, resulting in discomfort the cow and depressing production. For best results, a "pulsator operating mode" should be set at 45-50 pulsations per minute,¹¹⁹ but some milkmaids, seeking to speed up the process, would increase pulsations to 80-90 or more,¹²⁰ a frequency at which "the milk-issuing process is not accelerated, but rather, slows down as the sucking cycle is shortened."¹²¹ A second example: machine-inexperienced milkmaids would fasten the apparatus too high, causing "the exit of milk from the nipple canals to become difficult ..."¹²² A third: one milkmaid working simultaneously on eight devices "can not manage to serve her cows in good time, overexposes the udder to the apparatus, and cannot properly monitor the milking process."¹²³ In addition to reducing milk yield,¹²⁴ these glitches also sound painful to the cow. When hand-milking, a milkmaid knew that the typical cow would not tolerate being mishandled; she could kick over the pail, switch her tail at the milkmaid, or step on or kick the milkmaid. When contact with the cow was mediated through machine, and moreover when the milkmaid had to attend to multiple cow/machines simultaneously, she could not stay attuned to the comfort of each.

That leads to the overall problem the Soviet machine designers identified: even if operating flawlessly, milking by machine created "depersonalization in caring for cows," and of all Soviet animal-tenders, they singled out Ukrainian milkmaids as particularly rejecting depersonalized cow care.¹²⁵ Dairy cows in Ukraine, I would add, had an expected lifespan of around 25 years; the cows in question were at most one or two generations removed, the calves or grand-cows, of those milk-producers who had seen

¹¹⁹ *Id.*

¹²⁰ Olenev and Belyaevksiy, *Milking Sites*, *supra* note 88.

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ Olenev and Belyaevksiy, *Milking Sites*, *supra* note 88. The word the authors use here, *obezlichka*, is very interesting. It can mean "depersonalization," "anonymity," or "a lack of personal responsibility."

villagers through Famine and War. Of those state farms in Ukraine that tried it at all, most dropped mechanized milking after but brief experiments. Even advocates attributed rejection of mechanization to a problem they could not design a way out of, "depersonalization" of the interaction with the cow.¹²⁶

The last decades of Soviet governance saw a few forays into mass milk production and mechanization,¹²⁷ but these examples remained relatively uncommon.¹²⁸ Whatever its theoretical advantages, machine milking actually "depress[e]d the interestedness of cattle-tenders, which often, instead of being champions of mechanization, impede[d] its implementation" or hastened its abandonment.¹²⁹ The features identified as reasons for this still echo in Ukraine today, and Soviet Ukrainian milkmaids' largely successful rejection of machine milking¹³⁰ portends their political potency on post-Soviet farms.

3. Milk at the Small Scale, Milk in Aggregate

¹²⁶ *Id.*

¹²⁷ In 1970, a Ukrainian agricultural research specialist pointed to the example of the "Kutuzovka" farm on which cows were not, primarily, pastured, and were milked in "milking parlors." I. A. Danilenko, *The Technology of the Production of Milk on an Industrial Basis* (1970), reprinted at *Istoriya doeniya*, available at http://agrotehimport.ru/national_history_of_dairy_equipment_ussr/tehnologiya_pr_oizvodstva_moloka_na_promyishlennoj_osnove/ This same technology was the centerpiece of several new dairy operations, enormous by the standards of Soviet dairying practice, in Ukraine -- 800 cows each (on the "Red Army" *sovkhos* in Kharkiv oblast' and the "Karl Mark" *kolkhoz* in Donetsk oblast') and 1000 cows (on the "Banner" *sovkhos* in Luhansk oblast') -- on which construction began in 1970. *Id.*

¹²⁸ Consider the milking "carousel," for example, common in U.S. dairy operations since the 1960s. See George Frisvold, *The U.S. Dairy Industry in the 20th and 21st Century*, 16 J. FOOD L. & POL'Y 197 (describing technology employed, including dairy carousels, in U.S. dairy production). Nearly unknown in the U.S.S.R., the only exemplar failed to increase production and, in fact, was blamed for high mortality rates of cows brought to it. Viktor Madison, *Invent a "Wheel" for Livestock Raising*, DairyNews.ru, April 29, 2014, <http://www.dairynews.ru/news/izobresti-koleso-dlya-plemennogo-skotovodstva-k-10.html> (describing an early 1980s Moscow-region dairy complex with German technology designed to support 2,000 cows, "the only [such modern] enterprise in the USSR," and reporting that milk production at this "palace" with its "unprecedented milking-carousel," . . . began to fall below the level of those households from where heifers had hurriedly been collected for [it]).

¹²⁹ *Id.*

¹³⁰ Olenev and Belyaevskiy, *Milking Sites*, *supra* note 88 (attributing the rarity of milking machines in Soviet dairy production to the pre-existing organization of the work and to milkmaids).

One indicator of how limited large-scale big-science interventions (like the feeding program) were in transforming the intimate codes of the dairysphere comes from a small amendment to the criminal law of the Russian Federation of 1963. "In order to stop the feeding of bread and other grain products to cattle and poultry," it reads, the Presidium of the Supreme Soviet of the R.F.S.F.R. makes punishable by incarceration for a second offense, "The buying up in state or cooperative stores of baked bread, flour, groats, and other grain products for feeding cattle and poultry . . ."¹³¹ Farmers, we can infer, had taken to supplementing livestock feed with bread and other products meant for human consumption. The need for this amendment may speak to unmet demand for richer fodder, but it also points to a feature to which my post-Soviet fieldwork attests: the intimacy of the relationship between caretaker and cow, such that each cow's food preferences are known and, when possible, catered to.

Whether a cow belonged to a rural household or was part of a collective or state farm herd, the act of milking remained part of a close and tactile relationship between milkmaid and cow. The part milk played in the survival of rural households through the tumult of the 1930s and 1940s if anything strengthened appreciation for the place of milk in village diets and cows in village life and deepened affective bonds between villagers and their dairy cows. To this day, Ukrainian villagers take their cows personally.¹³²

That said, while the relationship of cow to milkmaid remained personal, affective, and tactile, the surrounding rural milieu became the object of intense modernization. After violent beginnings, collectivization -- the pooling of resources, labor, and know-how and the forging of a collective rural subjectivity¹³³ -- became the social idiom through which modernity came to the Ukrainian countryside, from rural electrification to tractor stations, combines, and mechanized harvesters, to scientific interventions.¹³⁴ While the act of milking itself was not mechanized, milk processing was, and milk in excess of its rural producers' uses was trucked to industrial facilities for processing, bottling, and distribution, whence

¹³¹ "On Increasing the Liability for Feeding Cattle and Poultry Bread and Other Grain Products," Edict of the Presidium of the Supreme Soviet of the R.S.F.S.R., May 6, 1963, 11 *SOVIETSKAYA IUSTITSIA* 7 (1963), excerpted in Zile, *SOVIET LEGAL HISTORY*, *supra* note 27, at 447.

¹³² See fieldnotes from periods of observation cited *supra* note 15.

¹³³ For explanation and description of the forging of collective subjectivities, see, e.g., Eppinger, *Oligarchy*, *supra* note 5. See also generally KHARKHORDIN, *supra* note 86.

¹³⁴ See text *infra* notes 98 - 126 *supra*.

milk linked villagers to urban consumers in anonymous networks of production and consumption.

The processes described in the foregoing overview trouble a simplistic description of milk in Ukraine as "indigenous." Over a century of revolution and experimentation, war and self-cultivation, milk production and consumption in Ukraine were the object of intense interventions. In milk, the indigenous, tactile, and personal became enmeshed in the modern, industrial, and impersonal.

IV. From Sheds to Stalls

A. Decollectivization by Law: Land in the Limelight

Beginning in the late Soviet period, the collectivized landscape would face vast transformation anew. Reformers associated with Mikhail Gorbachev introduced the first steps towards decollectivizing agriculture through a late-Soviet law allowing "private farming" on a 99-year leasehold; though response was limited and by 1991, only 3,000 farmers across the U.S.S.R. had availed themselves, the idea was germinating.¹³⁵

After Ukraine became politically independent in 1991, the new Ukrainian government introduced measures towards bringing private ownership of herds and lands to Ukrainian farming.¹³⁶ However, even initiatives instituting private property rights were shaped by conceptual categories, allegiances, and habits from collectives. One 1995 presidential order divested the state of agricultural ownership, converting all state farms into collective farms (collectively but undividedly owned by the residents of the farm).¹³⁷ A second provided that each member of a collective farm

¹³⁵ Interview with Bohdan Chomiak, director of agricultural programs for USAID Kiev (June 20, 2002).

¹³⁶ Decree of Cabinet of Ministers of Ukr. "On the Privatization of Land Plots," Decree No. 15-92, Dec. 26, 1992, *reprinted in* PRAVO VLASNOSTI NA ZEMLYU TA IOHO ZAKHIST: ZBIRNIK NORMATIVNIKH AKTIV 168-169 (2002) (allowing late-Soviet leaseholders to purchase their plot outright from the government and permitting them to resell it). This would, incidentally, be the last time that the post-Soviet Ukrainian government permitted legal sale of agricultural land for nearly three decades, until at least 2020. *See, e.g., Verkhovna rada pristupila k obsuzhdeniyu zakona o rinkye selkhozemel*, Tass news service (tass.ru) Feb. 7, 2020, *reprinted in* The Dairy News, <https://www.dairynews.ru/news/verkhovnaya-rada-pristupila-k-obsuzhdeniyu-zakona-.html>.

¹³⁷ Order of the President of Ukr. "On the Parcelization of Land, Given into Collective Ownership to Agricultural Enterprises and Organizations," Order No. 720/95 of Aug. 8, 1995 *reprinted in* ZAKONODAVSTVO UKRAINI PRO ZEMLYU 162-

be issued a "land and asset certificate" documenting the person's ownership share (including in dairy cattle). Entitlement to a certificate, in principle based on one's belonging to the collective, would be determined by a "Land Committee" set up by the farm.¹³⁸ This measure introduced the concept of divisibility and created an exercise by which farmers imagined division of assets, including the collectively-owned herd. On the other hand, it also reinforced some of the bonds within the collective by forcing local committees to consider who "belonged" to the farm and who did not. Further, it did not change the governance structure of the collective farms and the director (a Soviet-holdover role), not the farm shareholders, still held sway.¹³⁹ The government depended on collective farm directors to distribute collective farm assets, leaving them significant discretionary power.¹⁴⁰ In regard to dairy cattle, this structural power and *de jure* authority set the stage for further showdowns between milkmaids and directors like the one recounted above.¹⁴¹

Passage of a new constitution for independent Ukraine ensured that private ownership in land was not *per se* illegal and brought the right to own land under constitutional protection.¹⁴² In the executive branch, President Leonid Kuchma's team experimented with issuing land share certificates to collective farmers late in his first term, and when they proved electorally popular, Kuchma disbanded agricultural collectives entirely as a matter of law.¹⁴³ In the legislative branch, a new Land Code providing for private ownership of land passed the parliament in October 2001. The record on public reception of privatization shows some ambivalence. Six months after the new Code passed into law, 41% of eligible

163 (2002) [hereinafter UKR. LAND LEGISLATION] (converting state to collective farms and reserving 10% of each state farm's landholding to be retained in state ownership and administered by the village council (*silska rada*)).

¹³⁸ A Temporary Order for Carrying Out Work of Given Government Acts to Collective Agricultural Enterprises, Agricultural Cooperatives, Agricultural Joint-Stock Companies, and those formed on the Basis of Sovkhoz and Other Governmental Agricultural Enterprises, on the Right of Collective Ownership to Land, confirmed by Order of the State Committee of Ukraine on Land Resources, No. 18, March 15, 1995 *reprinted in* UKR. LAND LEGISLATION, *id.*, at 162-163.

¹³⁹ Interview with Steve Dobrolovic, Kiev lawyer working for Chemonics on national land titling project, (July 3, 2003).

¹⁴⁰ Interview with Chomiak *supra* note 135.

¹⁴¹ See INTRODUCTION, *supra*.

¹⁴² CONST. UKR. Art. 41 (1996).

¹⁴³ "On the Uninvested Means concerning Accelerating Reform of the Agrarian Sector of the Economy," Decree of the President of Ukraine No. 1529/99, Dec. 3, 1999 *reprinted in* UKR. LAND LEGISLATION, *supra* note 137, at 85.

farmers had already claimed a land parcel,¹⁴⁴ but within five years, at least 20% of the overall population, roughly 10 million people, nearly all rural out-migrants, had left their homes and farms.¹⁴⁵

B. Decollectivization by Act: Disappearance and Democracy in the Dairy

1. Mystery Meat

My introduction to some of the puzzles of cows and cattle within the context of the privatizing Ukrainian landscape came in the summer of 2007. Coming across a word unfamiliar despite decent proficiency in Ukrainian and Russian languages, *govyadina*, ("beef"), made me aware that in twelve years of working in and on Ukraine, I could not recall encountering the word for "beef" in meals at friends' homes or on restaurant menus.¹⁴⁶ Alerted, I subsequently systematically took note in my fieldwork and documented, indeed, not encountering the word for "beef" in normal daily life,¹⁴⁷ a striking absence in a culinary culture that otherwise reveled in meat. Also striking, when traveling through the Ukrainian countryside, is the pervasively derelict state of large cattle sheds. Nearly every village has a long shed for cattle, and, by the summer of 1995 when I first observed the rural landscape, nearly every one gave (and still gives) every appearance of having been abandoned.¹⁴⁸

A connection between these two observations eventually became clear through interviews with investors in Ukrainian agriculture. While not able to verify the story of beef they tell, I have now attested repeated versions across Ukraine. The story is, in the last year or so of the Soviet period and the first year or so of Ukrainian independence, two brothers (usually described as hailing from Lebanon, explaining or perhaps exoticizing the exogenous element of the story) traveled the Ukrainian countryside, village by village, buying up the cattle. They would strike a deal with the local collective farm director, transfer the cattle from the collective farm's

¹⁴⁴ *A Good Deed Indeed for Owners of Farmland*, KYIV WEEKLY, June 14, 2002 at 21.

¹⁴⁵ INTERNATIONAL ORGANIZATION FOR MIGRATION KYIV MISSION, LABOUR MIGRATION ASSESSMENT FOR THE WNIS REGION (October 2007).

¹⁴⁶ Field observation, "говядина" [*govyadina*, beef], sandwich-board menu in front of beachfront restaurant, Sudak, Crimea (June 9, 2007).

¹⁴⁷ Field notes, *supra* note 12.

¹⁴⁸ Observations during author's period of diplomatic service at U.S. Embassy Kyiv, 1995-1997, and thereafter, periods of anthropological fieldwork as noted *id.*

pasture to the nearest truck or train transport depot, get them loaded up, transported to the port of Odessa, and shipped out by sea. No one knew if they went to populate herds elsewhere, or if they were destined for slaughter for meat or leather goods. The collective farm director would pocket the proceeds; the two brothers would move on to the next village. In different villages, locals would point to a satellite dish or a post-Soviet automobile at the home of the former collective farm director -- expensive goods that no one else could afford -- and tell me, "That's our herd."¹⁴⁹

The apocryphal tale of the sell-off of Ukraine's beef herd, whether accurate in its details or not, reflects local causal explanations of an observed phenomenon, the disappearance of beef cattle, that is borne out in official statistics. The numbers are astonishing. The number of head of beef cattle in Ukraine, estimated at 25,195,000 in 1990 (the year before the dissolution of the U.S.S.R.), fell to 4,100,000 by 2015.¹⁵⁰ Beef production by agricultural enterprises (as opposed to households) crashed from 1,808,000 tons in 1990 to 97,000 tons in 2011.¹⁵¹

As related in the Introduction, a second part of the tale -- also fitting a narrative pattern, but this time related by eyewitnesses or participants rather than hearsay -- involves the milkmaids of the collective farm dairy noticing the disappearance of local beef cattle, organizing to confront the collective farm director in a group meeting, and "decollectivizing" the village dairy herd by each milkmaid taking home a cow. In addition to descendants of the household cow allowance under collective farming,¹⁵² the milkmaids' action swelled the ranks of cow-owning post-Soviet Ukrainian households. Village architecture came to include, in the small outbuilding behind each home previously built for a pig, a new stall for each cow.

¹⁴⁹ Field notes, *id.*

¹⁵⁰ Rob Cook, *Ukraine Cattle Inventory (1988-2015)*, Beef2live, October 15, 2019, <http://beef2live.com/story-ukraine-cattle-inventory-1988-2015-85-122064> (report by a market analyst published by a beef grower's association). The figures given are illustrative of the estimated crash in numbers of beef cattle, but I offer them without claim to exactitude. Beef cattle statistics vary somewhat from source to source. See, e.g., S. Bohdanko, *Nevtishni realii*, 2 2 AGRO PERSPECTIVA 40 2009, cited in O.G. Kukhar, *Suchasni Tendetsii Rozvitku Tvarinnitstva v Ukraini*, 8 EFEKTIVNA EKONOMIKA 2013, <http://www.economy.nayka.com.ua/?op=1&z=2267> (giving the figures as falling from 21,083,000 to 1,511,000 in 2011) [hereinafter Kukhar, *Current Trends*].

¹⁵¹ Kukhar, *id.*

¹⁵² See Part III.B.1.b. *supra*.

2. Milking Machines and Moral Obsolescence

The story of the local revolt of village dairy maids that reached me from participants and eyewitnesses raises the question, How widespread was such action? As with the story of beef cattle, the dairy maids' tale of confrontation and village herd decollectivization is confirmed more widely, at least in its effects, by statistics. Against a backdrop of mass bovine export and slaughter which reduced the beef herd to 1/5 of its late-Soviet ranks, the holding of dairy cows by households skyrocketed over the same period both in absolute numbers and as a percentage relative to agricultural enterprises. In 1990, dairy cows husbanded by Ukrainian households amounted to 3.54 million cows, and by 2000 that number had increased to 4.38 million cows.¹⁵³ Between 1990 and 2000, the number of dairy cows raised in individual households increased from 14.4% to 46.5%.¹⁵⁴ By 2010, 65% of the total cattle population (and thus, an even greater percentage of total dairy cattle) was concentrated in household ownership.¹⁵⁵

In many villages, this shift has resulted in a new informal "recollectivization" of cow herding duties. Back in Gruzenske village, after the confrontation with the collective farm director, each milkmaid returned home with a cow. Rather than duplicate pasturage duties, the milkmaids organized cow-owning families into a cooperative effort, each family taking a turn tending to the group of village cows for a day (multiplied, in the case of a multiple-cow family, by the number of cows a family owned). By 2009, 18 years later, this arrangement had stabilized into a set routine, both for dairy-owning households and for cattle. Cattle leave their own family's courtyard each morning and join the herd heading up the central dirt road of the village out to the nearest pastures. Locals jokingly refer to this as "the morning commute," and the 33 head of cattle plodding together are indeed the most traffic the village road will see in a day. At the end of the day, a member of each family waits at the entrance of the family courtyard to open the gate and let the family's cow or cows in. There is no need to direct or herd the cow; each cow knows her home and trots in at a brisk pace. The joke is, in fact, that one needs to look sharp and get out of the way or a cow could run you over in her eagerness to get back to her stall, where she is fed her favorite foods and her owner-milkmaid attends to her milking.¹⁵⁶

¹⁵³ Kukhar, *Current Trends*, *supra* note 150.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ Field observation, Gruzenske village, Ukr., Sept. 2009.

Taken in sum, the results of these processes -- monetization of the beef herd and decollectivization of the dairy herd -- are profound. Practically every village in Ukraine ended up with some households who kept, and still keep, their own dairy cow.¹⁵⁷ Beef, in village diets and urban menus, is largely absent¹⁵⁸ and correlated statistics concern those fixated on beef over dairy.¹⁵⁹ These shifts have also transformed the rural landscape. Nationally, acreage devoted to growing forage has fallen¹⁶⁰ as villages convert to pasturing dairy cattle rather than fattening up beef.¹⁶¹ Nearly every village has a large cattle shed, part of the former collective farm buildings, that by 1995 was emptied of animals, by 2000 looked abandoned, and by 2020 is largely dilapidated.¹⁶²

Household cows are milked by hand. Some current proponents push for retooling and marketing anew milking machines of the Soviet era that were designed for smaller-scale operations;

¹⁵⁷ Of 5.3 million rural households in Ukraine in 2013, nearly 2 million keep their own dairy cow. Milk Supply in Northern Ukraine, FAO/EBRD Report No. 18, *supra* note 94 at xiv.

¹⁵⁸ In the words of a USDA report of 2017, "Beef cattle numbers will remain insignificant." Alexander Tarashevych, Ukraine Livestock and Products Annual Report 2 (September 1, 2017), U.S.D.A. Foreign Agricultural Service Global Agricultural Information Network, https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Livestock%20and%20Products%20Annual_Kiev_Ukraine_9-1-2017.pdf

¹⁵⁹ See, e.g., Kukhar, *Current Trends*, *supra* note 150 (fretting as an agronomist over data that might indicate a problem in beef production but not in dairy, such as in 2000, the average daily increase of cattle amounted to 255 grams/day, 40% less than in 1990, although admittedly the average daily increase in 2011 reached 481 grams/day, exceeding 1990 rates). See also, e.g., legislative attempts to promote breeds with greater potential to put on weight as in Law of Ukraine "On the Breeding Business in Animal Husbandry," *passed into law by PVRU № 3773-XII*, Dec. 23, 1993, in VVR 1994, № 2, at 7-8, <https://zakon.rada.gov.ua/laws/show/3773-12>, and as subsequently amended in 1999, 2003, 2010, 2012, and 2015, *final amended text available at* <https://zakon.rada.gov.ua/laws/show/3691-12>.

¹⁶⁰ Between 2009-2011, the number of hectares devoted to growing forage fell by an astonishing 80%, from 11,999,000 ha to 2,477,000 ha. TVARINNITSTVO UKRAINI ZA 2011 RIK. STATISTICHNII ZBIRNIK (N.S. Vlasenko ed., State Committee of Statistics of Ukraine, 2012), *as analyzed by* Kukhar, *Current Trends*, *supra* note 150.

¹⁶¹ As of 2013, feed for cattle in Ukraine was composed of 19-20% silage, 18% hay and straw, 30% "green forage" of sown grasses, natural meadows, and pastures. O.M. Ribachenko, *Osnovni problem rozvitu kormo virobnitstva v Ukraini*, 10-12 AGRO INKOM (2011) http://archive.nbuv.gov.ua/portal/chem_biol/agroin/2011_10-12/RYBAHENK.pdf, *cited in* Kukhar, *Current Trends*, *supra* note 150.

¹⁶² See notes 12 and note 156 *supra*.

however, say skeptics, both the layout of current facilities and the social organization of villages are unsuited to them, or rather, as one specialist from Russia, Vladimir Kirsanov, recently concluded, the old equipment is "morally obsolete."¹⁶³

Regarding household acquisition of dairy cattle, the most notable legal point here, it bears emphasizing, is the absence of formal law: milkmaids' confrontations with local authority, namely their collective farm director, happened largely before presidential decrees had turned state farms into collective farms, turned collective farms into joint stock companies, or specified procedures for dividing assets, or even before parliament had passed privatization laws. Likewise, they did not wait for law to bring accountability or official new governance structures, but rather collectively decided on a solution they found fair (or at least, fairer than the risk of the dairy herd disappearing) and brought it into realization. Local experience with holding authority accountable -- in particular, a gendered confrontation between village dairymaids and the nearly all-male collective farm directors -- became a defining feature of early post-Soviet rural political life. Prior experience with milkmaid brigades, understanding the significance of dairy to village diets and incomes, and the kinds of bonds between milkmaid and cow provided organizational, intellectual, and affective grounds for action.

C. Corporations, Consumption, and Caretaking

Ukrainian cuisine boasts a rich variety of milk products, including many forms meant to preserve milk for later consumption: sour cream, cottage cheese, kefir, a baked whey concoction called "ryazhenka," and other products for which there is no direct English translation.¹⁶⁴ Village dairy maids are adept at preserving milk and extending the period in which it may be consumed.¹⁶⁵ Nonetheless,

¹⁶³ Vladimir Byacheslavovich Kirsanov, *Strukturno-Tekhnologicheskoye Obosnovaniye Effektivnovo Postroyeniya i Funktsionirovaniya Doilnovo Oborudovaniya*, doctoral dissertation (2001), at 1, *relevant portion available at* <https://www.dissercat.com/content/strukturno-tekhnologicheskoe-obosnovanie-effektivnogo-postroeniya-i-funktsionirovaniya-doiln>.

¹⁶⁴ Entries in *UKRAINIAN-ENGLISH DICTIONARY* (University of Toronto press, C.H. Andrusyshen comp., 1955).

¹⁶⁵ In households, "[m]ilk is produced for family needs and for sale in neighboring urban centers in either fluid milk form or processed into traditional basic dairy products such as soft cottage cheese, sour cream and cream." USDA Foreign Agricultural Service, *GAIN Report – UP1824 – Dairy and Products Annual* (Oct. 16, 2018)

<https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filena>

nearly every cow produces more milk than can be consumed or bartered by village households locally.¹⁶⁶ The demise of the Soviet system interrupted former modes and networks for getting milk to food processors and thence to consumers, and a patchwork of practices and new routes and methods arose.

A detailed recounting of the post-Soviet history of food processing is beyond the scope of this article,¹⁶⁷ but several features bear noting. Despite the introduction of milking machines, carousels, and "milking robots" to the imaginary of specialists in the Ukrainian milk-production sphere,¹⁶⁸ most milking of cows is still done by hand, in villages, largely by women, and now largely by women of the family that owns the cow.¹⁶⁹ Processing the milk into

me=Dairy%20and%20Products%20Annual_Kiev_Ukraine_10-16-2018.pdf.

¹⁶⁶ The Soviet term for "commercial dairy farm," known by its abbreviation MTF (see text *infra* note 48 *supra*), is still used to refer to commercial enterprises in Ukraine today that specialize in producing raw milk for milk processors and bottlers. Of raw milk sent to dairy processors, 78% is from MTF and 22%, from personal farms. Analysis of the Dairy Industry in Ukraine, MilkUA.info, September 26, 2019. The average milk yield per cow from household dairy cows is 4480 kg. *Tvarinnitsvo Ukraini*, 2017 STATISHICHNIY ZBIRNIK 144 (Kyiv, State Statistics Service of Ukraine, 2017), http://www.ukrstat.gov.ua/druk/publicat/kat_u/2018/zb/05/zb_tu2017pdf.pdf [hereinafter *Tvarinnitsvo Ukraini*]. Compared with the 4480 kg/cow of milk produced annually, average annual consumption of milk per person in Ukraine is 110 kg of fluid milk (second in the world only to Belarus). Global Per Capita Consumption of Fluid Milk in the World, By Country (Statistica Research Department (Jan. 22, 2020)

<https://www.statista.com/statistics/535806/consumption-of-fluid-milk-per-capita-worldwide-country/>

¹⁶⁷ The latest annual figures (from 2018) show that 26% of the the agricultural sector is involved in animal husbandry, including dairy, and 74% in crop production. *Sotsial'no-ekonomichno pokazniki 2018: Sil'ske hospodarstvo*, State Service of Statistics of Ukraine, <http://ukrstat.gov.ua>. For an excellent overview of the Ukrainian food processing sector as regards milk, see Anna Gereles and László Szöllösi, *The Current State and Latest Trends of the Ukrainian Dairy Sector*, ANNALS OF THE POLISH ASS'N OF AGRICULTURE AND AGRIBUSINESS ECONOMISTS, June 3, 2019.

¹⁶⁸ See, e.g., *V mire doilnoi mekhaniki – traditsii i sovremennost'*, NOVOE SELSKOE KHOZYAISTVO (April 9, 2009), reprinted at THE DAIRY NEWS, DairyNews.ru, https://www.dairynews.ru/news/v_mire_doilnoj_tehniki--tradicii_i_sovremennost.html (describing circa 2009 the latest in milking technology in Western Europe, including futuristic "milking robots" that would eliminate the human hand from the work of milking).

¹⁶⁹ A Dairy Revival in Ukraine, Chemonics report, June 12, 2019, <https://chemonics.com/impact-story/a-dairy-revival-in-ukraine/>. That is not to say dairy enterprises with large herds do not exist at all. See, e.g., *Zarplata doyarki 20 tis. hrn ta rivni dorohi: yak zhive hromada na Cherkashchiny*, Fakty ICTV broadcast of April 23, 2018 available at <https://decentralization.gov.ua/news/9259>

a variety of products for home and village consumption falls first to rural women.¹⁷⁰ Milk beyond that needed for family consumption or for barter within the village, or home-processed for sale in markets in nearby urban areas,¹⁷¹ is collected, largely in metal containers (although increasingly in plastic), and sold to milk processing concerns that operate on the supra-village level.¹⁷² Some milk processors have, since Ukraine gained independence, put together fleets of refrigerator trucks that travel through villages every morning after cows are milked and sent to pasture, to collect each contributing household's container(s) of milk.¹⁷³ The income provides supplemental cash to village households. It is not atypical for a household to be self-sufficient in regard to unprocessed foodstuffs, stove-fuel firewood, and winter silage. Cash from milk sales supplements pensions and off-farm wages to pay for gas heating (if the village is connected to the gas grid); for electricity; for other processed foods like flour and sugar; for clothing and other small consumer goods; for taxes; and, notably, for contributions to family members' education. In other words, in regard to foodstuffs, the village household of independent Ukraine is remarkably autarkic.¹⁷⁴ Milk, providing a residual source of cash for necessities that the household does not produce or barter for locally, is a primary nexus

(reporting on a rural community that manages its own cattle herd of 1,800 cows, with its milkmaid-employees earning up to 20,000 hryven/month. (compared with official average monthly salaries across all employments, nationally, of UAH 8480. Nominal'na ta real'na zarobitna plata u 2018-2019, State Service of Statistics of Ukraine, <http://ukrstat.gov.ua>)). Such large dairy concerns, however, are the exception rather than the rule. See Part V below.

¹⁷⁰ FAO/EBRD Report No. 18, *supra* note 94, at xiii and 69.

¹⁷¹ Gereles and Szöllösi, *supra* note 167, at 72 ("Household milk is processed by families into basic, cheap, dairy products and sold on open-air markets without any statistical record").

¹⁷² Food processing enterprises, including those specializing in dairy, were privatized at a much faster clip than agricultural enterprises early in Ukraine's post-Soviet history. By January 1, 1996, 63 percent of food processing plants legally subject to privatization had been privatized and by mid-1996, that included 55 percent of Ukraine's dairy and cheese plants. Yuri Yekhanurov, *The Progress of Privatization*, 38 EASTERN EUROPEAN ECONOMICS 77, 80 (2000) (describing the fast pace of privatization of food processing industries early on in the post-Soviet Ukraine, in contrast to agricultural enterprises, which resisted privatization). Raw milk that needed a destination found one in a privatized enterprise.

¹⁷³ Described briefly in USDA Foreign Agricultural Service, GAIN Report – UP1824 – Dairy and Products Annual 2-3 (October 16, 2018) https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual_Kiev_Ukraine_10-16-2018.pdf

¹⁷⁴ Interview with Tyotyta Doyarka, September 17-21, 2009; see also Serhiy Moroz, *Rural Households in Ukraine: Current State and Tendencies*, 60 ECONOMICS OF AGRICULTURE 565 (March 2017) at Table 7, Structure of Total Resources of Rural Households.

to the national and international cash economy for many village households.

The food processing companies dealing in dairy products include enterprises built on the foundations of Soviet-era food processors, new Ukrainian enterprises, and foreign corporations who have entered into business in Ukraine since the end of the U.S.S.R.¹⁷⁵ Dairy processors produce for domestic consumption (largely urban consumers) and for export.¹⁷⁶ The reach of the state contracted at independence; subsequent years saw the state setting up, anew, legal parameters for food production and processing. Basic legislation regulating food safety was passed in 1998,¹⁷⁷ seven years after independence, and it has been subsequently amended and expanded upon in measures, for example, aimed at consumer protection and information.¹⁷⁸ Although the state's capacity for oversight is limited,¹⁷⁹ there are multiple and overlapping state institutions and

¹⁷⁵ Gereles and Szöllösi, *supra* note 167. The chart of the top ten dairy companies in Ukraine by market share in 2017 is particularly illuminating. *Id.* at Fig. 3. *See also* Chain Comparison of the Dairy Sector in Ukraine and in the Netherlands, Ukrainian Agribusiness Club, October 31, 2017, <https://www.agroberichtenbuitenland.nl/binaries/agroberichtenbuitenland/documenten/publicatiens/2017/10/31/2017---dairy-comparison-study-nl-ua/2017++Chain+comparison+of+the+dairy+sector.pdf> (listing the top 20 producers of dairy products in Ukraine in 2015).

¹⁷⁶ Gereles and Szöllösi, *supra* note 167.

¹⁷⁷ Law of Ukraine, "On Basic Principles and Requirements for Food Safety and Quality," № 771-97, December 23, 1997, *in* VVR, 1998, № 19, at 98, <https://zakon.rada.gov.ua/laws/show/771/97-%D0%B2%D1%80>.

¹⁷⁸ *See, e.g.*, Law of Ukraine, "On Food Information for Consumers," № 2639-VIII, December 6, 2018, *in* VVR, 2019, № 7, at 41, <https://zakon.rada.gov.ua/laws/show/2639-19>. Ukraine dropped the Soviet system of standards (acronymed GOST) after the Russian invasion of Crimea in 2014 and subsequent Russian support for armed secession in southeastern Ukraine. *Ukraine Scraps Soviet GOST Standards*, UNIAN News Service, Dec. 16, 2015, <https://www.unian.info/economics/1213976-ukraine-scraps-soviet-gost-standards.html> However, state regulators still use GOST as a frame of reference. Enterprises must comply with them if they want to label dairy products "manufactured in accordance with GOST," or alternatively must indicate the technical conditions of their non-compliance in product labeling. Mykola Moroz, Director General of the Directorate for Food Safety and Quality, *quoted in* Olena Holubeva, *Milk Market of Ukraine: EU Standards vs. Peasant's Income*, 112.ua, Dec. 18, 2018, <https://112.international/article/milk-market-of-ukraine-eu-standards-vs-peasants-income-23732.html>.

¹⁷⁹ A "moratorium on verification" puts sole responsibility for compliance with dairy product regulations on the manufacturer. Vitaliy Bashynsky, head of the Public Council under the State Consumer Protection Service, *quoted in* Holubeva, *id.* ("Today, the responsibility for the conformity of food products to the marking is borne by the manufacturer alone"). *See also, e.g.*, Borys Kobal, director of the Food Safety and Veterinary Medicine Department of the State Consumer

structures concerned with regulating dairy and other food products.¹⁸⁰

Exports of dairy products have been affected by two countervailing forces. First, over the last two decades, the national government has promoted the export of Ukrainian dairy products within an overall effort towards bringing Ukraine into membership with international trade organizations and customs unions. In regard to dairy, this has entailed legislation regulating production and bringing safety and quality into conformity with international standards.¹⁸¹ Regulations on milk products were legislated and subsequently amended in conformity with Ukrainian commitments to the World Trade Organization (WTO).¹⁸² Popular support for membership in international trade and customs unions is strong. In the winter of 2013-2014, massive street protests urged the Ukrainian government to stay the course in regard to integration with European structures, and subsequently, the Ukrainian government agreed to a roadmap, the European Accession Agreement, which sets out policy measures Ukraine must adopt in order to be considered for EU membership,¹⁸³ among them standards for raw milk and for dairy products meant for export.¹⁸⁴ Measures to integrate Ukrainian dairy products into world markets are succeeding. The European Commission, for example, has begun granting permission to Ukrainian milk products companies to export their goods to the EU

Protection Service, complaining that inspections of milk collection points and of dairy products manufacturers take place only once every two years, and then with ten days' notice, and thus are insufficient. Kobal, *quoted in* Holubeva, *id.*

¹⁸⁰ For example, food safety is controlled by a number of governmental authorities, including but not limited to the State Committee for Technical Regulation and Consumer Policy, the State Veterinary and Phytosanitary Service, the State Plant Quarantine Service, the Ministry of Health, the State Sanitary and Epidemiological Service, the Ministry of Agricultural Policy and Food, and the Ministry for Environmental Protection.

¹⁸¹ Law of Ukraine "On Milk and Dairy Products," № 1870-IV, June 24, 2004, *in* VVR, 2004, № 47, at 513, <https://zakon.rada.gov.ua/laws/show/en/1870-15>, English translation available on the website of the World Trade Organization, https://www.wto.org/english/thewto_e/acc_e/ukr_e/WTACCUKR147_LEG_1.pdf.

¹⁸² *See id.* as amended by Law of Ukraine, № 402-V, Nov. 30, 2006, *in* VVR, 2007, № 4, at 37, <https://zakon.rada.gov.ua/laws/show/en/1870-15> (specifying amendments "entering into force on the day of Ukraine's accession to the World Trade Organization").

¹⁸³ Association Agreement Between the European Union and Its Member States, of the One Part, and Ukraine, of the Other Part (Sept. 1, 2017), <https://www.kmu.gov.ua/en/yevropejska-integraciya/ugoda-pro-asociacyu>.

¹⁸⁴ *See, e.g.*, E.U. Regulation No. 853/2004 (April 29, 2004), setting requirements for the quality of dairy raw materials, conformity with which implementation of the Association Agreement between Ukraine and the EU would demand.

market.¹⁸⁵ As of 2019, agricultural and food exports from Ukraine amounted to \$22.2 billion, 44% of Ukraine's total exports.¹⁸⁶ Ukraine is a net exporter of food, with food exports dwarfing food imports (which amounted to \$5.7 billion in 2019).¹⁸⁷ Ukrainians prefer local milk, but are developing a taste for foreign cheese, as cheese was one of the rare areas in which imports grew between 2018 and 2019.¹⁸⁸

Trade triumphalism should, however, not obscure one of the most significant developments for Ukrainian dairy products exporters: disruption of relations with Russia, previously Ukraine's largest trading partner in foodstuffs, since the 2014 annexation of Crimea by Russia and war with Russian-affiliated forces in southeastern Ukraine. The government of Russia imposed a ban on importing Ukrainian dairy products on August 1, 2014.¹⁸⁹ Although

¹⁸⁵ The European Commission announced the first Ukrainian milk product companies granted permission to export to the EU market in December 2015. *10 Ukrainian Milk Companies Allowed Exporting Products To EU*, 112.ua, Dec. 29, 2015, <https://112.international/ukraine-and-eu/10-ukrainian-milk-companies-allowed-exporting-products-to-eu-1973.html>. Twenty-seven companies are licensed to export dairy products to China. *Another Nine Dairy Companies are Licensed to Export to China*, Ukrinform, June 22, 2017, <http://agroconf.org/en/content/another-9-ukrainian-dairy-companies-licensed-export-china>. In 2018, Ukraine opened 85 export markets for various types of products and increased the number of enterprises that received the right to export food products of animal origin. A total of 126 producers of the country can export food products to EU countries. *Ukraine Agrees on Vet Certificate for Dairy Export to Saudi Arabia*, Ukraine Open for Business, June 26, 2019, <https://open4business.com.ua/ukraine-agrees-on-vet-certificate-for-dairy-export-to-saudi-arabia/>.

¹⁸⁶ Ukraine Agribusiness Club, *In 2019 Agri-food Export from Ukraine Increased by 19%*, Feb. 4, 2020, http://ucab.ua/en/pres_sluzhba/novosti/u_2019_rotsi_eksport_agroprodovolchoi_roduktsii_z_ukraini_zmenshivsia_na_19

¹⁸⁷ *Id.*

¹⁸⁸ Livestock products were one of the few areas of food import growth, due to a growth in cheese imports (as well as fresh and frozen fish) which together totalled \$153.5 million. *Id.*

¹⁸⁹ For the list of Ukrainian enterprises banned from exporting dairy products to Russia, see Rosselkhoz nadzor (the Federal Service for Veterinary and Phytosanitary Surveillance of the Russian Federation), *Ukraine: Enterprises Licensed to Export to the Russian Federation (Food: Milk and Milk Products)* <http://www.fsvps.ru/fsvps/importExport/ukrain/enterprises.html?product=26&productType=5&language=en> (last visited February 7, 2020). See also USDA Foreign Agricultural Service, *GAIN Report – UP1425 – Ukraine Stops Many Exports to Russia* (August 11, 2014) https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Ukraine%20Stops%20Many%20Exports%20to%20Russia_Kiev_Ukraine_8-11-2014.pdf.

some workarounds were found, the effects were profound, particularly on cheese exporters (to the extent that Russia's ban was referred to as the "cheese war").¹⁹⁰ In 2013, exports of Ukrainian dairy products totaled \$458.6 million, of which \$308 million worth went to Russia; in the first 10 months of 2015, the first calendar year after the war started, total dairy exports decreased to \$163.4 million, of which only \$10.9 million worth found their way to Russia.¹⁹¹ Against a background of milk as a base of empowerment for village milkmaids, the two countervailing trends described here -- growth in exports to a variety of foreign markets, disastrous contraction with Russia under conditions of war -- also reveal milk as a point of integration, making local milk producers vulnerable to political and structural forces often beyond their control.

D. Foreign Investment and Local Dairy Power

By 2009, some foreign investors, noticing its absence from Ukrainian markets and diets, had become interested in reintroducing beef cattle husbandry to Ukraine,¹⁹² harnessing economies of scale and American production models to create an industry that would out-compete local sources of meat and international competitors in beef. One such firm, working closely with a local labor force of former collective farmers, had established a beef operation outside of Kyiv which I went to observe. Ralph M., an expert from Kansas brought in as a consultant, commented as we approached the cattle sheds, "These are the four-year-olds. You will not even recognize these as the same animals you're used to seeing."¹⁹³ The cattle were hefty and healthy -- no surprise there -- but none had been gelded and all still had horns. In the U.S., he noted, beef cattle of that age would be considered aggressive enough that their horns are typically removed, lest they harm farmhands or each other. "These animals are completely docile. They're more like dogs,"¹⁹⁴ which Ralph attributed to the extent and gentleness with which they are handled

¹⁹⁰ Interview with Lina Dotsenko, Director, CNFA, June 15, 2019.

¹⁹¹ Anastasiya Zanuda, *ZVT z ES: skladnii vibir neminuchovo*, BBC Ukraina, Dec. 30, 2015,

https://www.bbc.com/ukrainian/business/2015/12/151223_free_trade_ukraine_eu_az.

¹⁹² The following section reports from field research conducted among U.S. investors in Ukrainian beef production over the first two weeks of November, 2009 in Kyiv oblast'.

¹⁹³ Interview with Ralph M. (U.S. beef consultant to Ukraine-based beef start-up), Nov. 14 2007.

¹⁹⁴ *Id.*

by the workers.¹⁹⁵ The farmhands in charge of tending to the beef cattle were uniformly men. Even among a large herd of several hundred cattle destined for beef, the workers knew each one, including where it liked to be scratched.¹⁹⁶

Even more pronounced was the relationship of care and intimacy between the milkmaids and the business' dairy cattle. In the milking shed, each dairy cow had its name hand painted on a placard at the front of its stall. The milkmaids -- to a person, the dairy cattle-tenders were female -- knew each cow's peculiarities. To avoid causing the cow undue anxiety, they tried not to rotate between cows but rather devoted the same milkmaid to the same cow, day in and day out. Just as in the village with the household cows, a milkmaid knew how her cow preferred to be milked, the rhythm and strength; how long milking would normally take; how much milk the cow would normally give.¹⁹⁷ John S., the American manager, read my thoughts and answered my obvious question before I had even posed it. "You may wonder why we even have dairy cattle. We are not a dairy operation and we have no aspirations to dairy."¹⁹⁸

This kind of phenomenon, of dairy as a sideline, shows up more widely in general reports; as one recent report puts it, industrial dairy is small and "currently existing dairy farms . . . function as subsidiaries of larger agricultural companies oriented towards crop production."¹⁹⁹ Why would crop producers engage in dairy production? In the jargon of U.S. experts, "Livestock farms are utilized more as social employment projects rather than profitable businesses."²⁰⁰ The U.S. investors in beef, carrying a dairy operation in which they had no interest, put it in more human terms. "We wanted to get rid of them, but the milkmaids threatened to riot. If we got rid of even one of these dairy cattle, we would have an

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ Interview with John S. (U.S. owner/manager of Ukraine-based beef operation), Nov. 14, 2007.

¹⁹⁹ USDA Foreign Agricultural Service, GAIN Report – UP1824 – Dairy and Products Annual 2-3 (October 16, 2018) https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual_Kiev_Ukraine_10-16-2018.pdf.

²⁰⁰ *Id.*

insurrection on our hands. It's easier, and cheaper just to keep the dairy cows and keep the milkmaids happy."²⁰¹

E. Farm to Table

Over the nearly thirty years of Ukrainian independence, getting dairy to urban markets has depended on the introduction of new networks of food processors. Some are coops, composed of associations of local milkmaids; increasingly, large foreign concerns are involved. How products then get to consumers is in flux. Cities over the past five years have begun phasing out the open markets from which dairy products, like other produce, used to be sold to urban consumers who were allowed to try (a spoonful on the back of the hand) milk, sour cream, or other dairy products before purchase. During the same period, with a rise in urban real estate prices, the corner milk and produce stores are disappearing, replaced by supermarkets. Milk products increasingly get from processor to consumers via grocery stores,²⁰² where single-use plastic bottles and tetra paks have replaced the reusable glass containers that urban consumers used to fill from dairy-product sellers at open markets.

There are two significant points of resistance to the hegemonic rise of supermarkets in food retail. One is a new trend towards small urban outlets selling organic products from known individual producers.²⁰³ The other is the village resistance, an autarkic dairysphere in which households serve their own needs or barter with neighbors.²⁰⁴ Regardless of how milk reaches consumer, the system of dairy production rests on the stall behind many villagers' homes in which the cow and her caretaker go through their daily milking routine.

V. Conclusions: On Herds and Humans

²⁰¹ Interview with Ralph M. (U.S. beef consultant to Ukraine-based beef start-up), Nov. 14 2007.

²⁰² Consumption of industrially processed milk as compared with household milk was 3,829,820 tons of processed versus 3,414,460 tons in 2016. European Bank for Reconstruction and Development (EBRD) and Food and Agriculture Organization of the United Nations (FAO), Ukraine's Milk Production Balance, Table 4.6 Milk Balance (2016), *at* Milk Supply and Demand Balance System: Public-Private Policy Dialogue in the Ukrainian Dairy Sector Project, milkbalance.org.ua.

²⁰³ Field observation, Moloko vid Fermera, ul. Volodymyrska 38, Kyiv city, June 2019.

²⁰⁴ See text *infra* note 198 *supra*.

Today, roughly 4 million small family dairy operations and rural households produce 75% of Ukraine's dairy output, and they do so almost exclusively milking by hand.²⁰⁵ Industrialization of food production has not subsumed the dairysphere. Without romanticizing the situation, and acknowledging some of the systemic problems inherent in human consumption of dairy, it is worth noting that having most of the milk produced in small-scale household operations in Ukraine has several environmental implications. Experts decry the "inefficiency" of household milk production,²⁰⁶ its average annual milk yield per cow at 4480 kg compared with 6025 kg per enterprise cow.²⁰⁷ However, with its "inefficient" household dairy production, Ukraine has avoided some of the environmental ills associated with modern dairy production elsewhere. Yield is lower in part because dairy cattle feed more on pasturage than silage,²⁰⁸ giving Ukrainian dairying a lower carbon footprint. In addition, pasturing cows over large tracts of former collective farm land also means that manure is dispersed, fertilizing fallow fields, rather than concentrated in the sewage ponds common in North American dairy production.

In addition, milk production is dominated by individual relationships between caretaker and cow. Milk cows are tended to

²⁰⁵ In 2017, enterprises produced 2,765,700 tons of milk while households produced 7,514,800 tons. *Tvarinnitsvo Ukraini*, *supra* note 168, at 26. A Dairy Revival in Ukraine, Chemonics report, June 12, 2019, <https://chemonics.com/impact-story/a-dairy-revival-in-ukraine/> (reporting the 75% figure). Other current estimates are that some 80% of Ukrainian milk production comes from small-scale producers. USAID Report, *Ukraine Dairy Coops Get More Competitive: Improved processing, lower costs, more sales for dairy farmers*, <https://2012-2017.usaid.gov/results-data/success-stories/project-makes-dairy-cooperatives-competitive>.

²⁰⁶ See, e.g., USDA Foreign Agricultural Service, GAIN Report – UP1824 – Dairy and Products Annual (Oct. 16, 2018) https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Dairy%20and%20Products%20Annual_Kiev_Ukraine_10-16-2018.pdf ("Households practice a low-cost, low productivity approach").

²⁰⁷ *Tvarinnitsvo Ukraini*, *supra* note 168, at 144.

²⁰⁸ See Phil Durst, Michigan State University Extension dairy educator, describing feed as a factor in "quality" and yield of Ukrainian household milk production, quoted in Addy Battel, *Can Ukraine Regain Its Reputation as the Breadbasket? Improving Dairy Cattle Efficiency on Former Collective Farms in Ukraine* (Aug. 30, 2017), <https://www.canr.msu.edu/news/can-ukraine-regain-its-reputation-as-the-breadbasket-improving-dairy-cattle-efficiency-on-former-collective-farms-in-ukraine>. But regarding perceptions of "quality," see Gereles and Szöllösi, *supra* note 167, at 72 ("There is widespread belief that household milk and dairy products are 'organic,' healthier,' of 'higher quality,' or even 'safer' than industrially processed products").

by caretakers who, in most cases, care for four cows or fewer;²⁰⁹ they not only know each cow's milk production norms, but her name, food preferences, preferred milking style, tolerance for proximity to strangers, need for warmth or preference for cool, how long milking will take, how the cow should smell, the usual rate of her breathing.²¹⁰ The relationship between milkmaid and cow is more intimate in some of its embodied and affective dimensions than industrialized production allows.

Though socialism rendered the means of production a public resource, I propose that connections between cow and caretaker, if anything, grew stronger in the earliest days of collectivization of agriculture in Ukraine. Gaining milk cows for shared use was one of the first tangible benefits to the rural poor of the Communist Party's collectivization campaign and the physical struggle against rural smallholders, the so-called "kulaks." Famine that accompanied collectivization in Ukraine intensified the bond between village and cow. Milk, perishable and easily consumed, was less confiscable by state authorities than grain stores. Rural Ukrainians that survived the Famine understood milk's importance to their survival, and that significance grew during the years of privation during World War II and its aftermath. The insertion of science into agricultural production may have extended into livestock feed but did not reach extensively into the tactile relationship of milk production between milkmaids and cows. Teams of milkmaids worked with state and collective farms' jointly owned or managed herds, but milkmaids specialized by subgroups and knew each cow with whom they worked. For families that kept their own dairy cow, the bond was at least as strong.

The relationship between caretaker and cow remained strong during the period of dissolution of the U.S.S.R. Soviet structures -- such as the command function of a command economy, the ethical commitments of Party membership and socialist futures, and the control exerted by incentives and monitoring systems -- dissolved.

²⁰⁹ 71.1 % of rural households do not keep dairy cattle. 21.7% have only one cow; 5.9% have two; 0.9% have three; and only 0.4% have four or more. Serhiy Moroz, *Rural Households in Ukraine: Current State and Tendencies*, 60 *ECONOMICS OF AGRICULTURE* 565 (March 2017) at Table 4, Distribution of Rural Households, by Number of Selected Types of Livestock (in %).

According to state statistics, in 2017, agricultural enterprises held 484,600 head of cattle, compared with 1,624,300 held by households. The number held by agricultural enterprises is 466,600 (as of 2018). The total number held by rural households is 1,551,200 (2018). *Tvarinnitsvo Ukraini*, *supra* note 168, at 144.

²¹⁰ Field observation, Gruzenske village, Ukraine, September 2009, summer 2016, May-November 2017.

State ownership of property, the keystone feature of state socialism, became a central problematic of the post-Soviet era. Amidst legal incrementalism, parliamentarians debating and policy-makers taking centipede steps towards divesting the state and introducing private property ownership, some village assets were treated locally as up for grabs. Beef cattle disappeared. Milkmaids, canny to the extent to which milk provided a reserve for village sustenance and income and emotionally invested in the cows, took matters into their own hands to prevent the dairy herd from being "liquidated," monetized and pocketed by one local opportunist. Milkmaids saved the village herd by decollectivizing it. The social cohesion of dairymaids on the local level has proved salient; the fact that this was not an organized, national movement makes its patterning nationwide all the more striking. "Privatization" in beef versus dairy thus appears in contrasting forms, secretive and wealth-concentrating versus transparent and wealth-distributing.

Considering law and milk in Ukraine opens up several insights. It reveals how, during the Soviet period, milk production provided households with a reserve of calories, income, and power within overarching collectivization of agricultural production. The moral of the Soviet story, however, is not one of triumphant individualism or hardy family holdouts. Rather, it shows how household and individual practices found a place within collective structures. Looking at the post-Soviet experience, the story of milk and law in Ukraine reveals some of their continuities, as well as micro-practices at work within the frameworks of national laws, structures of international trade, global shifts in modes of power, and the press of security concerns. Multinational corporations, increasingly involved in dairy processing in Ukraine, have both reached into the daily routines of remote villagers and found their limits; village norms are also reshaping corporate production. In local performances of power, the dairysphere finds both the dissolution of some forms of collective life and the reorganization of daily life along the lines of new collectivities. Milk production also reveals the pragmatic plays of gender dynamics within local disputes and vast social transformations. Milk has remained a reservoir of calories and a ground of social networks; its story shows the resilience of intimate relationships between dairy cows and their keepers and the political strength, untapped nationally but salient locally, of dairy maids.