

Grains of Conflict

China's war against Japan was, at its heart, a struggle for food. As the Nationalists, Chinese Communist Party, and Japanese vied for a dwindling pool of sustenance, grain emerged as the lynchpin of their strategies for a long-term war effort. In the first in-depth examination of how the Nationalists fed their armies, Jennifer Yip demonstrates how the Chinese government relied on mass civilian mobilization to carry out all stages of provisioning, from procurement to transportation and storage. The intensive use of civilian labor and assets—a distinctly preindustrial resource base—shaped China's own conception of its total war effort, and distinguished China's experience as unique among World War Two combatants. Yip challenges the predominant image of World War II as one of technological prowess, and the tendency to conflate total war with industrialized warfare. Ultimately, China sustained total war against the odds with premodern means: by ruthlessly extracting civilian resources.

JENNIFER YIP is Assistant Professor in History at the National University of Singapore.

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“*Grains of Conflict* addresses an underappreciated yet fundamental aspect of the Sino-Japanese War. Jennifer Yip’s insightful analysis of the Nationalist Chinese efforts to extract grain from the countryside to feed its soldiers reveals a critical aspect of the war that underpinned the Chinese victory.”

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Grains of Conflict

*The Struggle for Food in China's Total War,
1937–1945*

Jennifer Yip
National University of Singapore



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Shaftesbury Road, Cambridge CB2 8EA, United Kingdom
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314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
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103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

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a department of the University of Cambridge.

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www.cambridge.org

Information on this title: www.cambridge.org/9781009601320

DOI: 10.1017/9781009601344

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When citing this work, please include a reference to the DOI 10.1017/9781009601344

First published 2025

A catalogue record for this publication is available from the British Library

*A Cataloging-in-Publication data record for this book is available from the Library
of Congress*

ISBN 978-1-009-60132-0 Hardback

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978-1-009-60132-0 — Grains of Conflict
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For my parents

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Acknowledgments

Writing a book is a curious paradox. It is a deeply solitary endeavor, made up of hours upon hours of sitting alone in offices and in archival reading rooms, on planes and trains, agonizing over notes no one else can understand. But it is also communal. The process of putting this book together has hinged on the guidance and companionship of peers, mentors, colleagues, and friends from around the world.

I am indebted to Jeremy Taylor, Kwong Chi Man, Rosella Capella Zielinski, Brian Farrell, Lee Seung-joon, and Bruce Lockhart, who all kindly read draft chapters of the manuscript. They have had an important role in clarifying and sharpening my arguments (and in saving me from several minor embarrassments). At Cambridge University Press, Lucy Rhymer and Rosa Martin have been wonderful to work with, and I am grateful for their patience and meticulousness. The two anonymous reviewers provided thoughtful and incisive feedback that helped me articulate my arguments with more lucidity. Any errors that emerge in the following pages are mine alone.

I am the grateful recipient of several fellowships that made possible archival research and the procurement of crucial print material, much-needed stints of writing, and other miscellaneous costs of putting a monograph together: the F. Hilary Conroy Dissertation Travel Grant and Center for East Asian Studies Student Research Travel Grant from the University of Pennsylvania; the Esherick-Ye Family Foundation Grant; and the FASS Book Grant Scheme from the National University of Singapore.

The staff at the Academia Historica's Xindian Office, the Institute of Modern History at the Academia Sinica, the old KMT Party Archives, and the National Chengchi University Libraries were extremely helpful, and made research trips a joy. My thanks to Su Sheng-hsiung and Chan Ho Yan, whose help was indispensable for overcoming the disruption of the Covid-19 pandemic. Sheng-hsiung's scholarship continues to be an inspiration, and I am extremely thankful for his advice and kindness. The staff at the Hoover Library and Archives at Stanford University and the National University of Singapore's Chinese Library have also helped make this book possible. I am

xii Acknowledgments

grateful to the Needham Research Institute for allowing the use of their images in this book.

At the University of Pennsylvania, where I completed my doctoral studies, Arthur Waldron established my foundations in military history and strategic thought, while Frederick Dickinson and Fei Siyen introduced me to the richness of modern East Asian history. Their passion for teaching and kindness to all students continue to inspire me. Sun Jing, Sarah Yu, and Ren Yi, my *xuejie*, and my friends Amber and Patrick Kenworthy all helped me through the long years of doctoral training in their own ways. Yi and her family were also generous hosts, giving me solace and safety far away from my own home. The dissertation workshop series jointly held by the departments of History and East Asia Languages and Civilizations was an essential platform for me to share my ideas at their most nascent. My sincerest thanks to all the participants of the workshop, who offered not just advice but also much needed company in the trying years of the pandemic. Special thanks go to the faculty convenor, Ayako Kano, and also to the scholars from outside of Penn who so graciously agreed to serve as external readers during my workshop sessions: Hans van de Ven, Xu Yan, and Harold Tanner. Harold Tanner also helped see the dissertation through to completion.

The Clements Center for National Security at the University of Texas, Austin, provided me with a precious postdoctoral year during which I could focus on transforming the dissertation into a manuscript. It was also at Clements that I got to venture beyond the familiarity of modern Chinese history. It was the ideal intellectual home for someone aspiring to be not just a scholar of East Asia, but also of war, strategy, and statecraft. I am indebted to the people there who provided me with such a formative experience. Will Imboden and Paul Edgar were supportive and understanding throughout. Within the Asia Policy Program, where I was also a fellow, Sheena Greitens brought together like-minded scholars and shared much insight and expertise. My postdoctoral and predoctoral colleagues have taught me a great deal about national security: Kyle Balzer, Chris Dictus, Ayumi Teraoka, and Casey Mahoney. I look back with great fondness on our debates in the office corridor about the fault lines between history and political science. The staff offered me friendship that served as a much needed salve for homesickness: Caroline Nicholson, Drayton Cullen, Amber Howard, Emily Burch, Alex Foggett, Elizabeth Doughtie, Jennifer Carter, and Catherine Evans.

At the National University of Singapore – where I was first nurtured as a historian, and where I now hope to do the same for future generations of students – I have found the most supportive colleagues I could ask for. My heartfelt thanks go to Matt Reeder, Seng Guo Quan, Jack Chia, Masako Hattori, Kung Chien Wen, Sayaka Chatani, Matthias Wong, Wang Jinping, Tim Barnard, Donna Brunero, Priya Jaradi, Lee Seung-joon, Medha Kudaisya,

Maitrii Aung-Thwin, Kelvin Lawrence, Hajimu Masuda, Peter Borschberg, Sharon Low, Emanuel Mayer, Joey Long, and (from the Department of Chinese Studies) Huang Yanjie. They have entertained many a panicked request for advice and reassurance. Many of them also spent a Wednesday afternoon listening to me ramble on about grain management officials at a department seminar and offered much guidance. I am hugely thankful not just for their willingness to share their experience and expertise, but also for the conversations we have in pantries and office doorways. Just as I argue in the book, the banal and everyday are important. These casual moments of camaraderie made agonizing over the manuscript much more bearable. Matthias Wong graciously set aside several hours to teach me the ins and outs of QGIS so that I could craft my own maps. This is a remarkable feat given that I remain unable to make anything remotely useful happen in Photoshop. Brian Farrell and Ian Gordon were the ones who first believed in me. Had it not been for them, I might not have had the courage to follow through with my passion for history. The errors which may appear in the following pages, in spite of all the aforementioned support, are my own.

On the “home front,” I am blessed with friends who have stayed by my side despite the vicissitudes of doctoral studies and early academia. Clara Li, my lifetime friend and reader of everything I’ve penned since the age of thirteen, shared her home and company as I soldiered through the dissertation, then the manuscript. She and her husband Jon – and later, their beautiful son Ezra – have seen me through this project. Much of this book was also first penned during several work-study sessions with Benjamin Lim (a coping mechanism for the demands of the pandemic). Conor Donnan has managed to perfect the act of being an older brother. He continues to give me selfless support, intellectual rivalry, and impeccable comic relief sometimes all at the same time. He and his wife Lia gave me a second home in Baltimore in the final stretch of graduate school. Ben Roberts has shared with me the joys and frustrations of being budding scholars, even though I work in the archives and he in the laboratory.

“Found family” aside, my grandpa has shared many FaceTime calls to keep me anchored. Even though academia is a foreign country to him, he has caringly kept track of my progress and showered me with unconditional support. My sister Sam has been an important source of humor, sending me a steady stream of memes and livening up our home with her idiosyncratic brand of hilarity. My love for dogs is no secret, and my own two family dogs were often seated on either side of me as I completed this manuscript. And, most of all, my parents have been unwavering pillars of strength. They never questioned my career choices, even though it meant heavily delayed gratification and years of living continents apart. I have been able to pursue my love for history because of them.

Notes on the Text

Units of Measurement

Chinese units of measurement are notoriously inconsistent. In 1929, the Nationalist government attempted to standardize units of length, area, weight, and volume by establishing conversion rates between the metric system and the “market” system (*shiyong zhi* 市用制):

Weight 重量

1 *liang* 兩 = 0.0625 斤

1 *jin* 斤 = 16 *liang* 兩 = 0.5 kilograms 公斤

1 *dan* 擔 = 100 *jin* 斤

Volume 容量

1 *sheng* 升 = 1 liter

1 *dou* 斗 = 10 *sheng* = 10 liters

1 *shidan* 市石 = 100 *sheng* = 100 liters

Most statistics on grain were rendered in units of volume. They could also be reflected in units of weight, although this was less frequent. The typical unit of volume used was the *shidan* 市石, where the character 石 is read as *dan*. This is not interchangeable with the unit of weight *dan* 擔. However, as Lloyd Eastman has noted, there was much confusion surrounding units of measurement in the first half of the twentieth century. Consequently, both units of volume and weight sometimes shared the same character and were even translated into the same English term, the picul.¹ In keeping with the exact manner in which these two units appear most frequently in primary sources, I render the volumetric unit as *shidan*, and the *dan* that denotes weight as *dan*.

Many sources pertaining to military grain use physical containers, such as *dabao* (大包, large bags), as their main denominator. Where this is the case,

¹ Lloyd Eastman, *Seeds of Destruction: Nationalist China in War and Revolution, 1937–1949* (Stanford: Stanford University Press, 1984), 51–52.

I reflect the original figures in *dabao* instead of converting them to kilograms to remain faithful to the original unit of measurement. Officially, one *dabao* was 200 *jin*, or 100 kilograms, of *dami* (大米), or husked rice (including the weight of the bag itself).

There were also conversions from units of volume to units of weight. According to Arthur Young's calculations, one *shidan* (volume) of unhusked rice, or paddy (*daogu* 稻穀), was roughly 128 *jin* (64 kilograms) (weight).² However, Chinese-language sources suggest that the official conversion rate for paddy was one *shidan* to 108 *jin* (54 kilograms). The latter is probably more likely, although, given the lack of standardized tools of measurement throughout China, large discrepancies across the country are not surprising.³ In any case, conversions from volume to weight are extremely arbitrary because it depends on whether space is utilized efficiently.

A less commonly used carrier was the *xiaobao* (小包), which carried 40 *jin* of rice. As for flour, one *dai* (袋, sack) was stipulated to be 45 *jin*.

For further reference, see the conversion tables in Hollington K. Tong, ed., *China Handbook, 1937–1943: A Comprehensive Survey of Major Developments in China in Six Years of War* (New York: The Macmillan Company, 1943).

Chinese-Language Terms

All Chinese-language terms are rendered in *pinyin*. One major exception is “Chiang Kai-shek”; his name is more often recognized in this form. For key terms, both the original Chinese characters, or *hanzi*, and their *pinyin* are provided in-text for the reader's reference.

² Arthur Young, *China's Wartime Finance and Inflation, 1937–1945* (Cambridge, MA: Harvard University Press, 1965), 356.

³ I make this suggestion firstly because some sources claim this to be the official conversion rate, and secondly based on instances in the historical material where both *dabao* and volumetric figures are available. Volumetric figures (*shidan*) typically referred to paddy, while *dabao* referred to hulled rice (*mi* 米). Manual calculations reveal that a volume of between 2.67 and 3 *shidan* of paddy would yield 1 *dabao* of husked rice. If 1 *shidan* equalled around 54 kilograms, 144.18 kilograms (2.67 *shidan*) of paddy yielded 100 kilograms (1 *dabao*) of husked rice. This meant that rice husks accounted for 44.18 kilograms, or 30 percent of paddy weight, as a by-product of milling. Since husks are around 20 percent of paddy weight, these figures are likelier than if 1 *shidan* equalled 64 kilograms (which would result in a much larger ratio of husk to paddy). For mention of the rate of 1 *shidan* to 108 *jin*, see Guan Jiyu et al., eds., *Tianfu huiyao*, vol. 5, *Guomin zhengfu tianfu shikuang (xiace)* (Chongqing: Caizhengbu, 1943), 137, accessed via Taiwan E-book, National Central Library, <https://taiwanebook.ncl.edu.tw/zh-tw/book/NCL-9900009450/reader>. One document establishes a conversion of 3 *shidan* of paddy to 1 *dabao* of husked rice, but this seems to have been less frequently implemented; “Diyi zhanqu bingzhan zongjianb jieshou sanshiniandu Chuan-Xiang-E lianggai shubiao” (April 30, 1942), in *Kangzhan junliang dang'an xuanbian*, vol. 16, ed. Second Historical Archives of China (Beijing: Jincheng chubanshe, 2019), 503–4.

In Chinese and Japanese, the family name precedes the first name. The names of historical figures are reflected in this manner unless otherwise stated. The names of scholars writing in Chinese and Japanese are also reflected with the family name first. However, the Chinese- and Japanese-language names of scholars writing in English are reflected in the order in which the name is attached to the cited work.

Abbreviations

CBI	China-Burma-India
CCEA	Central China Expeditionary Army
CCP	Chinese Communist Party
CEA	China Expeditionary Army
CEF	Chinese Expeditionary Force
EADB	East Asia Development Board
NCAA	Northern China Area Army
NKK	Nisshin Kisen Kaisha
NRA	Nationalist Revolutionary Army
RNG	Reorganized National Government
SOS	services of supply