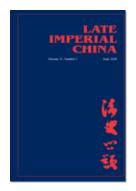


Abortion in Late Imperial China: Routine Birth Control or Crisis Intervention?

Matthew H. Sommer

Late Imperial China, Volume 31, Number 2, December 2010, pp. 97-165 (Article)

Published by The Johns Hopkins University Press



For additional information about this article

http://muse.jhu.edu/journals/late/summary/v031/31.2.sommer.html

ABORTION IN LATE IMPERIAL CHINA: ROUTINE BIRTH CONTROL OR CRISIS INTERVENTION?

Matthew H. Sommer, Stanford University

Introduction1

Two sets of prominent historians have argued—from very different kinds of evidence, and with very different goals—that abortion was routinely practiced in late imperial China. The first set consists of *demographic historians*, notably James Z. Lee, Li Bozhong, and Wang Feng.² They claim that the Chinese demographic regime has long been characterized by systematic birth control, in which abortion played a significant role. Since Chinese people have practiced "rational" family planning for centuries, there was no need for China to undergo a modern demographic transition away from natural fertility like that experienced by the West; indeed, according to Lee and Wang, it was a simple and seamless process for Chinese people to adapt their own

Late Imperial China Vol. 31, No. 2 (December 2010): 97–165 © by the Society for Qing Studies and The Johns Hopkins University Press

Sincere thanks to all who commented on drafts of this paper, especially Che-chia Chang, Hill Gates, Christopher Isett, Lillian Li, Thomas Mullaney, Arthur Wolf, and Yi-Li Wu; my graduate students Wesley Chaney, Annelise Heinz, Ying Hu, and Yvon Wang; Barbara Welke and other participants in the Hurst Legal History Institute at the University of Wisconsin; my cousin Joan Kreider MD, who shared her professional

expertise in gynecology; and two anonymous referees. The following people helped me obtain sources: Ying Hu, Christopher Isett, Karasawa Yasuhiko, Janet Theiss, Xue Zhaohui, Karen Young, and the staff at the First Historical Archive of China and the Sichuan Provincial Archive; the following people helped me interpret difficult texts: Che-Chia Chang, Mei-yu Hsieh, Dongfang Shao, and Yi-Li Wu. The research here was funded by the CSCPRC, the American Philosophical Society, Stanford's Dean of Humanities and

Sciences and UPS Endowment, and the Japanese Ministry of Education.

The key toy to see I see and Wang. One Ownton of Humanity and Life.

The key texts are Lee and Wang, *One Quarter of Humanity*, and Li Bozhong, "Duotai, biyun, yu jue-yu" (Abortion, contraception, and sterilization). Li Bozhong claims that by the Qing, natural fertility had disappeared in Jiangnan, due to widespread and effective abortion and other means of fertility control, and that Jiangnan was representative of wider trends (see discussion below). Lee's earlier book (with Cameron Campbell), *Fate and Fortune in Rural China*, does not mention abortion or contraception per se, instead emphasizing marital restraint, infanticide, and neglect as "standard methods of family planning" (99). The addition of abortion and contraception in *One Quarter of Humanity* is largely based on Li Bozhong's article, and these scholars' citations of each other show that they share the same agenda.

long-standing practice of birth control to the post-Mao state's new regime of population control.³

The second set consists of *gender historians*, notably Francesca Bray and Charlotte Furth.⁴ Their focus is the politics of reproduction within the polygynous elite household; and their claims are far more nuanced and limited in scope than those of the demographers. Specifically, Francesca Bray argues that *elite* women were able to use abortifacients (euphemized as emmenagogues) to terminate early pregnancies (euphemized as "menstrual blockage") because regular menstruation was deemed the foundation of women's health and fertility. This technology of reproductive control enabled elite wives to avoid childbearing and to displace the biological duties of the wife/mother role onto the concubines and maidservants of their households.

Despite their many differences, both sets of historians believe that at least some people in late imperial China used abortion for routine birth control. This belief would seem to presuppose that traditional methods of abortion (and in the case of the historical demographers, contraception as well) were safe, effective, and readily available to those who wished to use them; indeed, Li Bozhong makes this claim explicitly. If true, these claims would have terrific implications for a host of sub-fields of Chinese history, including demography, gender, and sexuality, but also law and medicine. Moreover, as Lee and Wang suggest, whether and how the Chinese practiced fertility control in the past should inform the way we understand population policy in the PRC today. For all of these reasons, the practice of abortion in late imperial China deserves closer scrutiny.

The arguments of both groups of historians are quite appealing, and that appeal enhances their persuasive power. The historical demographers envision people in late imperial China engaging in a definitively modern form of behavior long before Europeans did; their vision is a variation on the theme of Chinese parity with (or even superiority to) the early modern West that has informed the works of William T. Rowe, Kenneth Pomeranz, and others. For their part, the gender historians envision at least some women in late imperial China enjoying a remarkable degree of agency and even autonomy in their reproductive lives, albeit at the cost of exploiting other women. ("Not all women were victims of their wombs. Women could and did act to control their own fertility." Their vision is a variation on the theme of elite female empower-

Lee and Wang, One Quarter of Humanity, 9–10, 133–35.

⁴ Bray, "A Deathly Disorder" and *Technology and Gender*; Furth, "Blood, Body, and Gender" and *A Flourishing Yin*.

⁵ Li Bozhong, "Duotai, biyun, yu jueyu."

⁶ Bray, Technology and Gender, 276.

ment and self-realization within the formal structures of Confucian patriarchy that has informed the works of Dorothy Ko, Susan Mann, and others. Many of us would like to believe in both of these visions. But I believe they are wrong, at least with regard to abortion.

To avoid misunderstanding, let me stipulate that I agree with past scholarship on several points. I agree that a number of purported methods of abortion were known, the most important by far being abortifacient drugs. For example, as many have observed, the most famous encyclopedia of traditional medicine, Li Shizhen's sixteenth-century *Bencao gangmu (Compendium of Materia Medica)*, lists a large number of herbal, animal, and mineral substances that supposedly can be used to induce abortion. I also agree that people sometimes attempted to induce abortion, and that at least some of these methods worked as intended, at least some of the time.

Where I disagree with past scholarship is about the safety, efficacy, and availability of these methods—and, therefore, the practical circumstances in which women actually resorted to them. I believe that traditional abortifacient drugs (the principal means employed) were dangerous and unreliable, and that access to them and their use required specialized knowledge and often a fair amount of money. Under the circumstances, abortion constituted neither an effective means of family planning nor a tool for female empowerment as understood by these scholars. On the contrary, abortion was an emergency intervention in a crisis. Textual sources from the late imperial era generally locate abortion in the context of either a *medical* crisis, in which pregnancy endangered a woman's health, or a *social* crisis, in which pregnancy threatened to expose a woman's extramarital sexual activity.

Abortion in the context of both sorts of crisis can be found in the Ming-Dynasty novel *Jinpingmei cihua* (*Plum in the Golden Vase*). In the first episode of abortion (in Chapter 33), Ximen Qing's wife Wu Yueniang is more than five months pregnant; after wrenching herself in a fall on the stairs, she suffers severe abdominal pain and her health is believed in danger. She consults a female herbal practitioner, who gives her two "large black pills" of unidentified ingredients to take with wine, in order to induce abortion. The abortifacient works—Wu Yueniang expels an intact male fetus—and she recovers from her

Li Shizhen, *Bencao gangmu xin jiaozhuben* (New annotated edition of *Compendium of materia medica*, hereafter cited as BCGM), 1:264–66, and individual entries throughout the text. For an overview of this text, see Nappi, *The Monkey and the Inkpot*; for an overview of traditional means of abortion in China, see Maxwell, "On Criminal Abortion in China"; Rigdon, "Abortion Law and Practice in China"; Li Bozhong, "Duotai, biyun, yu jueyu"; and Tian Yanxia and Jiao Peimin, "Zhongguo gudai duotai kaolüe" (Abortion in premodern China); for the spectrum of moral opinion on abortion in China, see Nie Jing-Bao, *Behind the Silence*.

illness. Given the novel's karmic logic, this episode serves to link Ximen Qing's incorrigible promiscuity with his inability to produce an heir: his licentiousness breeds infertility, because of damage to his health but also as retribution for his crimes.⁸

In the second episode of abortion (in Chapter 85), Ximen Oing's notorious concubine Pan Jinlian becomes pregnant by an affair with Ximen's son-in-law Chen Jingji. (By this point in the novel, Ximen has already died from an overdose of aphrodisiac.) Jinlian is anxious to terminate her pregnancy in order to conceal her incestuous adultery, so her lover procures an abortifacient from Dr. Hu, a specialist in women's medicine. Dr. Hu intuits what Chen is after, but at first he coyly boasts of his skill in promoting fertility and healthy childbirth. When Chen makes clear what he wants, the physician feigns horror: "Nine out of ten come to me seeking medicine to secure a fetus (antai). Why on earth would anyone want to abort a fetus (datai)? I have no such medicine!" Only after Chen offers a hefty bribe does Dr. Hu drop his pretense and provide him with an abortifacient compound of guaranteed efficacy. ¹⁰ Jinlian takes the drug and expels the fetus (again male) into a chamber pot. This abortion too carries an ironic twist: throughout the novel, Jinlian longs to become pregnant by Ximen Qing; but when she does finally become pregnant, it is by Chen Jingji, and she must abort the fetus.

The episode of Wu Yueniang's abortion exemplifies the scenario of *medical* crisis, when a pregnant woman's health is believed in jeopardy. (A variation is when a woman has been so exhausted or her health so impaired by multiple pregnancies that she fears carrying another to term.) The medical texts cited by Francesca Bray and Charlotte Furth document therapeutic abortions of this kind. In contrast, Pan Jinlian's abortion exemplifies the scenario of *social* crisis, when

McMahon, Causality and Containment, 102; for an overview of medicine in the novel, see Cullen, "Patients and Healers in Late Imperial China."

⁹ *Jinpingmei cihua*, 85:2b. I follow Yi-Li Wu's advice in translating *antai* as "secure" (rather than "pacify") the fetus, since this intervention's purpose was to prevent miscarriage (personal communication).

Pan Jinlian's abortifacient includes the striped blister beetle mylabris (banmao), gansui, yuanhua, liquid mercury, ox knee (niuxi), and musk (shexiang) (Jinpingmei cihua, 85:2b). Several of these substances are extremely toxic and are now restricted by the governments of the PRC, Taiwan, and Hong Kong; if ingested in any quantity this potion might be fatal, and by itemizing its ingredients, the author may intend to convey a sense of horror and black humor. Jinlian suffers no ill effect from the abortion: her karmic retribution arrives later in the form of Wu Song, who kills her. For the Taiwan and PRC lists of controlled materia medica, see Ko, "Causes, Epidemiology, and Clinical Evaluation of Suspected Herbal Poisoning," tables 1 and 2; for the Hong Kong list, see Schedule 1 of the Chinese Medicine Ordinance (Cap. 549 of the Laws of Hong Kong), Government of Hong Kong, "Bilingual Laws Information System," http://www. legislation.gov.hk/eng/index. htm. Official efforts to restrict toxic abortifacient herbs (such as gansui and yuanhua) date back to at least the Yuan Dynasty—see Yuan dian zhang (Decrees and regulations of the Yuan Dynasty), 57:39a–40b.

a woman attempts to terminate a pregnancy in order to prevent the exposure of adultery. This is the scenario found in Qing legal texts, as well as in modern medical reports of unsafe abortion in China.

Jinpingmei is fiction; but the two scenarios of medical and social crisis account for most (if not all) documented instances of abortion in late imperial China. Another point stands out: in both episodes, it is necessary to buy the abortifacient drugs from medical practitioners. In other words, the novel portrays abortion as a field of specialized knowledge, rather than some sort of commonplace women's lore.¹¹

In addition, anthropologists have documented a third context for abortion, through interviews with elderly rural women about life before modern birth control: some women burdened by poverty and physical hardship would try to terminate pregnancies in order to avoid bearing yet more children (which Lee and Wang might call "early stopping"). Fearing the disapproval of husbands and in-laws, they would do this in secret. Because these women feared the health consequences of further childbirth, their behavior bears some resemblance to the accounts of medical crisis found in textual sources.

The rest of this paper divides into three sections. First, I evaluate the claims of the demographic and gender historians, with particular attention to the weakness of their qualitative evidence; I suggest that their own evidence actually undermines their arguments. I also review relevant findings by anthropologists. Second, I present new evidence from Qing legal sources that suggests a very different perspective on the questions of safety, reliability, and accessibility of abortion, and on the context in which women actually attempted abortion. Among other things, Qing legal cases show that even women who actively sought an abortion were not necessarily able to get one. In the final section, I survey medical reports about the persistence of unsafe abortion by traditional means in the modern era, right down to the present day. These medical reports complement the legal cases: both kinds of evidence argue strongly against complacency about traditional methods of abortion in China.

Past Scholarship

The Demographic Historians: Routine Birth Control to Limit Family Size?

James Lee and Wang Feng argue that the premodern Chinese fertility regime was characterized by self-conscious, purposeful birth control to restrict fertility

Some historians of the West suggest (controversially) that contraceptive/abortifacient herbs were found in every housewife's garden and that their use was part of a ubiquitous women's lore passed from mother to daughter (e.g. Riddle, *Eve's Herbs*). This was certainly not the case in China.

through "late starting, early stopping, and long birth intervals." The key to this regime, they say, was "marital restraint" (that is, low coital frequency) that resulted in low marital fertility. But they also point to the role of "a wide variety of traditional reproductive technologies," including "various herbal medicines for contraception and a wide variety of abortive techniques," as well as infanticide and deliberate neglect to dispose of superfluous children. Indeed, they must claim that birth control was widespread in order to justify their estimated fertility rates, which are far lower than most scholars have argued, given that marriage at an early age was essentially universal for Chinese women.

Lee and Wang stake these claims mainly on quantitative data gathered from population records, but their analysis of those data has provoked controversy. As Arthur Wolf, Christopher Isett, and others have demonstrated, Lee and Wang's analysis is weakened by their obfuscation of the difference between total fertility and total *marital* fertility;¹⁴ their inclusion of the Qing imperial nobility, who were Manchus (not Han Chinese), and constituted a highly exceptional urban elite; their use of incomplete data on rusticated bannermen, who had strong motives to avoid being counted; and other factors.¹⁵ Wolf and Engelen show that according to the best evidence, fertility rates in premodern China actually conform to worldwide norms for natural fertility:

This discovery does not prove that the Chinese refrained from deliberate birth control, but it adds greatly to the burden of proof that Lee and Wang must bear. They must either generalize their thesis to include most historical societies with early and nearly universal marriage, or they must give reasons why birth control in China was

¹² Lee and Wang, One Quarter of Humanity, 88.

Lee and Wang, *One Quarter of Humanity*, 91; cf. 106: "Chinese couples also had access to traditional contraceptive and abortive technologies"; 139: "Chinese households in the past ... required that married couples limit their fertility either through sexual restraint or contraception, a policy continued at the state level today. Such collective strategies forced Chinese parents to kill or abort some children and nurture others according to collective economic and social constraints."

Their goal is to make China's fertility rates appear lower than those in Europe—see Brenner and Isett, "England's Divergence from China's Yangzi Delta," 619; and Isett, *State, Peasant, and Merchant in Qing Manchuria*, 189–90, 368–69. As Wolf and Engelen explain, "China's marital fertility may well have been lower than Europe's, but its total fertility was far higher" because nearly all Chinese women married whereas many European women did not, and because average age at marriage of Chinese women was lower than that of European women (Wolf and Engelen, "Fertility and Fertility Control in Pre-Revolutionary China," 348). Lee and Wang "report total fertility rates for China, but they never compare them with British or European total fertility rates. Although they repeatedly contrast Chinese and European marital rates, they never risk comparing their total rates" (Wolf and Engelen, "Fertility and Fertility Control," 349).

¹⁵ Arthur P. Wolf, "Is There Evidence of Birth Control," Isett, *State, Peasant, and Merchant*, 190; Wolf and Engelen, "Fertility and Fertility Control."

necessary to achieve a level of fertility produced by involuntary means in many other societies.¹⁶

Wolf and Engelen use household registers from Taiwan (the most accurate record of any premodern Chinese population) to test key aspects of Lee and Wang's argument:

The received view of Chinese fertility is that most couples made no effort to control their fertility because they wanted as many sons as possible. It predicts that the more children a woman has borne in the past, the more she will bear in the future because her fertility history indexes her fecundity. Lee and Wang's view is that since most couples wanted only a limited number of sons, they spaced their births to achieve but not overshoot this mark. Their position predicts that any relationship between past and future performance is bound to be negative. Couples who reproduced too rapidly when young would have made an effort to slow down later, whereas those who reproduced too slowly when young would have made an effort to speed up later.¹⁷

The Taiwan data confirm the received view: the general pattern is that couples had as many children as possible, instead of stopping at some desired maximum; whatever limit existed was apparently imposed by nature. Wolf and Engelen conclude that birth control, if practiced at all, did not have significant demographic impact.

In this paper, I focus on the *qualitative* evidence, because any quantitative data from pre-1949 China *not* backed by robust qualitative evidence should be treated with skepticism. As Wolf comments, "birth control on the scale suggested would be like having an elephant in the living room. There would be evidence of its presence everywhere." But Lee and Wang offer little qualitative evidence. Their method, rather, is to claim that their data prove the practice of birth control, and then to speculate about what forms birth control might have taken. With regard to "marital restraint," for example, they cite an esoteric textual tradition that advocated sexual moderation for the sake of male health and longevity; but they provide no example of any such text advising restraint

Wolf and Engelen, "Fertility and Fertility Control," 366.
 Wolf and Engelen, "Fertility and Fertility Control," 362–63.

Wolf, "Is There Evidence of Birth Control in Late Imperial China?" 151–52.

in order to limit family size, nor any evidence that this textual tradition either reflected or influenced actual behavior.¹⁹

What of their claim that the Chinese employed "a wide variety of abortive techniques"? For specific practices, Lee and Wang cite the list of abortifacient drugs found in *Bencao gangmu* and Li Bozhong's article about fertility control in the Yangzi Delta (which I discuss below).²⁰ For the supposed ubiquity of abortion in Chinese society, they invoke the sociologist Fei Xiaotong:

According to the well-known Chinese ethnographer Fei Xiaotong, by the early twentieth century abortion was not only widely known and used in some locales, but a woman who did not know how to use abortion to prevent a birth was laughed at by fellow villagers as a "foolish wife"²¹

Given Fei's high reputation, this statement appears to constitute powerful evidence. But if one checks what Fei actually wrote on the subject, a different picture emerges. Whatever its merit, the "foolish wife" anecdote comes not from "some locales," but from Dayaoshan in central Guangxi—and the people in question were not Han Chinese, but rather a subgroup of the Yao ethnic minority. Fei himself makes the specific context of his observation perfectly clear, so to imply, as Lee and Wang do, that he is speaking about China in general is misleading at best.²²

What then does Fei Xiaotong say about abortion among the Chinese? He does mention in two of his books that abortion was practiced by the Chinese, but I have been unable to find in his work any concrete evidence about techniques, their effectiveness, or their actual incidence. In his classic *Peasant Life in China*, Fei mentions abortion in passing without providing any specific

¹⁹ Lee and Wang, *One Quarter of Humanity*, 90–91. They also cite a study from Thailand as evidence that "Asian couples continue to follow a pattern of coital frequency considerably lower than elsewhere," 189–90. In his review of their book, Patrick Heuveline points out that "the copious Western literature about the adverse health consequences of onanism does not imply restraint from it, perhaps quite the contrary"; similarly, the actual practice of marital restraint "is hardly demonstrated by the 'copious literature on the need to limit sexual activity' to enhance health" cited by Lee and Wang.

They also cite a "forthcoming" article by Hsiung Ping-chen that appears never to have been published (as of this writing), and an article about Song-Dynasty tales of karmic retribution for abortion and infanticide; the latter seems relevant only insofar as it refutes their claim that infanticide "has not been considered immoral" in China (Lee and Wang, *One Quarter of Humanity*, 61).

Lee and Wang, One Quarter of Humanity, 92.

Lee and Wang cite *Shengyu zhidu*, where Fei clearly attributes this saying to the Hualan Yao: Fei Xiaotong, *Xiangtu Zhongguo—Shengyu zhidu* (Peasant life in China; The system of childbirth), 108; cf. 248–49. The anecdote first appeared in Fei's report on fieldwork in present-day Jinxiu Yao Autonomous county, Guangxi, in the 1930s; see Fei Xiaotong, *Liu shang Yaoshan* (Six visits to Yaoshan), 58.

information.²³ In his theoretical study entitled *Shengyu zhidu* (*The System of Childbirth*), Fei lists abortion, infanticide, and neglect as alternative means to restrict family size, citing published studies about various parts of the world (for example, Malinowski's work on the Trobriand Islands) and anecdotes from his own fieldwork (including among the Yao people). Fei's discussion of the Chinese focuses on infanticide and neglect; again, he offers nothing specific about abortion practices.²⁴

In Shengyu zhidu, Fei Xiaotong does make the following cryptic comment about folk methods of contraception: "I believe the snails (luosi) that Gui Youguang's mother ate, the fish and birds' eggs (yu niao dan) that women in Yangzi Delta villages ate, and other things of that kind were extremely common."25 Fei provides no citation or any further information, but the "fish and birds' eggs" bring to mind the tadpoles that Shanghai prostitutes used to swallow to prevent or terminate pregnancy. In 1958, after rigorous testing, tadpoles were "officially declared to have no contraceptive value"; in one study, more than 40 percent of the participating women became pregnant within four months.²⁶ As to the sixteenth-century literatus Gui Youguang, Fei must be referring to Gui's essay about his mother. Gui's mother married his father at the age of 16 sui (that is, 15 years old²⁷), and subsequently gave birth to seven children, the first after just a year of marriage. After finally weaning her seventh child, she complained to her servant women of being exhausted by childbirth, so one of them gave her two "snails" (luo) to swallow with water, saying that this would reduce the frequency of pregnancy. According to Gui, after taking the snails his mother became mute, and she died not long thereafter at the age of 26 sui (25 years old).²⁸ Plainly, this anecdote does not constitute evidence of effective contraception, let alone "marital restraint." If Gui's mother had really had access to reliable birth control, she might have lived longer.²⁹

In sum, the brief references in Fei Xiaotong's work offer no support for Lee and Wang's claims about the pervasiveness of effective contraception and

Hsiao-t'ung Fei [Fei Xiaotong], Peasant Life in China, 33–34.

²⁴ Fei Xiaotong, Shengyu zhidu, 10–11.

Fei Xiaotong, Shengyu zhidu, 11.

²⁶ See Hershatter, *Dangerous Pleasures*, 173, 462, and sources cited therein. Any apparent contraceptive effect among prostitutes was probably the result of infertility caused by sexually transmitted diseases.

²⁷ A person is aged one *sui* at birth and gains another *sui* at each lunar new year; an age calculated in *sui* is on average one more than the same age in years old. Gui gives the dates of his mother's birth and death, so we can calculate her age exactly.

Gui Youguang, "Xianbi shilue" (A record of my late mother's life), 218.

Nevertheless, Li Bozhong does cite this anecdote as evidence of effective contraception, on the grounds that Gui's mother did not give birth again after swallowing the snails; he ignores the fact that by that time she was an invalid who would soon die. Li Bozhong, "Duotai, biyun, yu jueyu," 180.

abortion. What about other anthropologists' fieldwork? Some does exist that is relevant to this inquiry.

For example, elderly women in Sichuan told anthropologist Hill Gates that the methods of contraception and abortion known in their youth simply did not work.³⁰ More detailed information is provided by Elizabeth Johnson, who interviewed rural women in Hong Kong's New Territories in the early 1970s (when abortion was illegal in Hong Kong). According to Johnson, "none of the women mentioned abstinence as a means of birth control. This is considered unnatural."31 As to contraception,

There were apparently no effective ways of controlling conception before modern methods of control were introduced. My informants said either that women previously had no means of preventing conception or that they had not heard of any. One elderly woman asserted that she had successfully prevented conception after her twelfth pregnancy by drinking a cup of unboiled water mixed with salt every night at bedtime.³²

Some women, however, did attempt to induce abortion. Johnson interviewed two who had attempted abortion by traditional means a total of three times between them, with an apparent success rate of one in three:

One middle-aged woman had tried in vain to induce an abortion with drugs bought from a traditional medicine shop. Another (age forty-five) had tried to abort her fifth pregnancy, taking various drugs and even deliberately taking a violent fall, but had failed. She succeeded in aborting her sixth pregnancy, taking a Chinese medicine in the fourth month 33

Since at least 15 percent of recognized pregnancies miscarry spontaneously (and poor nutrition, illness, and other factors can increase the miscarriage rate), there is no guarantee that the abortifacients worked even in the "successful" third attempt.34

Gates, "Footbinding and Handspinning in Sichuan," 181.

³¹ Johnson, "Women and Childbearing in Kwan Mun Hau Village," 238.

Johnson, "Women and Childbearing in Kwan Mun Hau Village," 237. Johnson, "Women and Childbearing in Kwan Mun Hau Village," 236.

Having a fever (an index for infectious disease) in early pregnancy or being underweight (an index for poor nutrition) both increase risk of miscarriage; in general, significant stress and fatigue increase risk of poor pregnancy outcomes—see Helgstrand and Andersen, "Maternal Underweight and the Risk of Spontaneous

One of Johnson's most interesting findings is that her informants opposed abortion on the grounds that "it hurts the woman":

No one raised moral objections; the taking of life at this stage appears not to be considered immoral. Abortion is inadvisable, almost all the women said, because it is dangerous to the mother's health.... The threat to the mother's health was the overwhelming concern.

Women expressed this folk wisdom with proverbs: "It is better to have three babies than one abortion"; and an abortion "is like picking an unripe papaya, which hurts the tree. It is better to pick it when ripe."35 In sum, Johnson's informants contradict any notion that traditional techniques of contraception and abortion were safe, reliable, or routinely used on a wide scale. Abortion was sometimes attempted and occasionally may have worked; but one cannot imagine these women resorting to it in a casual way.

A recent study by Hua Han contributes valuable new insights from interviews with elderly rural women in Xiaoshan, Zhejiang, about life before the introduction of modern birth control. Han emphasizes that "fertility was largely uncontrolled before the 1970s," but her informants did report a number of folk methods that at least some women used "in an attempt to limit their number of offspring and thereby reduce the physical and financial burdens of child rearing."36 They did so not as part of a collective family birth control strategy aimed at maximizing prosperity (as Lee and Wang envision), but rather as a desperate individual measure taken secretly, in defiance of husbands and inlaws.³⁷ Moreover, there is little evidence that these methods actually worked; Han characterizes them as "often risky, dangerous, and ineffective." 38

Han's informants mentioned three herbs that supposedly could prevent pregnancy and induce sterility, but "although many women apparently are aware of these plants and their effects, they rarely used them." Only one of the ninety women interviewed had actually taken one of these herbs, hemazi. "Because her husband was very lazy and rarely worked, she felt it would be too hard on her to have another baby while working and raising her other children at the same time. Without telling her husband, she collected the plant, boiled it, and took it

Abortion"; Kline et al., "Fever During Pregnancy and Spontaneous Abortion"; Maconochie et al., "Risk Factors for First Trimester Miscarriage" (my thanks to Joan Kreider MD for this information). Cf. Wolf, "Is There Evidence of Birth Control," 137–39.

Johnson, "Women and Childbearing in Kwan Mun Hau Village," 236–37.
 Hua Han, "Under the Shadow," 322.

Han, "Under the Shadow," 333–34.

Han, "Under the Shadow," 332.

regularly." The herb may have worked, since she bore no more children (having previously borne five). But the consensus among Han's informants was that "the *hemazi* plant is usually not very effective and can be very harmful, especially if women accidentally take it during pregnancy." Two other women had eaten large quantities of water chestnuts (*biqi*) in hope of avoiding pregnancy, but with no evidence of success: one of them bore a total of six children, the last at age 37; the other had a total of eight pregnancies (including one miscarriage), the last at age 39. These numbers suggest that water chestnuts had little if any contraceptive effect.⁴⁰

The only means of abortion known to Han's informants was self-injury, using the horizontal beating bar of a loom to strike the abdomen. Such methods are notoriously dangerous and unreliable: as Han puts it, "brutal, yet not very effective." One "model mother" who had borne nine children ("because effective birth control methods weren't available") reported that the loom "rarely worked." Again, although many women had *heard* about using the loom to attempt abortion, Han found only three who had done so themselves. Two reported that they had failed, whereas the third believed she had succeeded in aborting twice. But she had a total of fifteen pregnancies, including thirteen live births and the two miscarriages attributed to the loom; two out of fifteen is 13.3 percent, well within the rate of spontaneous miscarriage, so there is no reason to assume success in her case either. One woman who reported failure with the loom explained that "she did not want to have ten children but she had no choice, as no effective birth control methods were then available in the village or in the township." 43

To summarize, Hua Han documents the desire of poor rural women to avoid further childbirth, due to physical and economic hardship—and since at least some acted on that desire, they can be said to have exerted agency in an effort

³⁹ Han, "Under the Shadow," 328–329. The other two herbs are called *zhushu* and *zimo*. So far, I have been unable to find any other information about these three herbs.

⁴⁰ Han, "Under the Shadow," 340. According to Wolf, the mean age of last birth for Chinese women before 1949 was 38—see "Is There Evidence of Birth Control," 141.

⁴¹ Han, "Under the Shadow," 331. Informants also mentioned "forceful physical activities, such as jumping," 323.

Han, "Under the Shadow," 341–42.

Han, "Under the Shadow," 331. For another ethnographic account of dubious folk methods of abortion in Zhejiang, see Cao Jinqing et al., *Dangdai Zhebei xiangcun de shehui wenhua bianqian* (Modern social and cultural change in rural northern Zhejiang), 96–99. The authors conclude that poverty and illness were the real checks on population growth in this region, with poverty-driven infanticide being very common. As Cao Shuji and Chen Yixin point out, northern Zhejiang (the site of both studies) lies in the heart of the region where Li Bozhong claims effective abortion and other means of fertility control were widespread and easy to obtain—see "Ma'ersasi lilun he Qingdai yilai de Zhongguo renkou" (Malthusian theory and the Chinese population since the Qing Dynasty), 49.

to control their fertility. But Han also shows that such attempts were both uncommon and largely ineffective.⁴⁴

To support their claims, James Lee and Wang Feng rely on Li Bozhong, who accepts as "fact" their argument that "women controlled their fertility," and sets out to explain how they did so.⁴⁵ Li argues that techniques for preventing and terminating pregnancy "constantly improved" (*buduan gaijin*) over the late imperial era, "were superior to their Western equivalents," and "became ever more widespread, being accepted by the great masses of the people (*wei guangda minzhong suo jieshou*)." He focuses on Jiangnan, but claims that this region was "representative" of wider trends.⁴⁶

Li bases this progress narrative in part on a selection of medical texts dating from the Song Dynasty through the late Qing, noting that the number of abortifacients listed in these texts declines over time, and that some of the later texts warn of the toxicity of certain substances listed in earlier ones. He notes that some substances listed in older texts (like *Bencao gangmu*) have been shown by experiments to have abortifacient effect, but that others are now known to be dangerous (for example, the striped blister beetle mylabris, banmao) or ineffective (for example, donkey meat). Since later texts list fewer of the dubious substances, Li argues that techniques must have improved, enabling people to regulate their fertility with increasing efficacy. He also cites elaborate prescriptions that combined a number of substances described in classical pharmacopeia as having abortifacient effect. Since these individual ingredients were effective when used alone (something Li assumes without proving), he argues that their use in combination must have enhanced their efficacy, and that such use constitutes further evidence of improvement over time.⁴⁷ Another possibility, however, is that the simultaneous use of many herbs was a shotgun approach that reflected doubt about the reliability of any single ingredient.⁴⁸

There are a number of problems here. First of all, Li Bozhong's selection of medical texts is arbitrary. It may be true that those he has selected list a decreasing number of dubious abortifacients over time. But the point is moot, since old

Han shows that in the PRC era, some educated urban couples began using abstinence to "stop early"; but this was part of the modern fertility transition, not traditional practice—"Under the Shadow," 332, 334–38.
 Li Bozhong, "Duotai, biyun, yu jueyu," 172. This article is listed as "forthcoming" in the bibliography of *One Quarter of Humanity* and was published in 2000 in a volume co-edited by James Z. Lee.

⁴⁶ Li Bozhong, "Duotai, biyun, yu jueyu," 172, 179, 196.

Li Bozhong, "Duotai, biyun, yu jueyu," 175–76.

⁴⁸ Stefania Seidlecky observes that Western folk remedies "list a myriad of herbs, to be taken separately or together, often over days or weeks, thereby suggesting that none was particularly reliable either as an emmenagogue or an abortifacient" ("Pharmacological Properties of Emmenagogues," 96). Cf. Santow, "Emmenagogues and Abortifacients in the Twentieth Century," 82, and Santow's critique of Riddle, much of which applies equally well to Li Bozhong (Santow, Review of *Eve's Herbs*).

classics like *Bencao gangmu* have remained in print and retained their authority right down to the present day. In traditional Chinese medicine (TCM) journals today, articles on specific drugs typically begin by citing *Bencao gangmu*, and physicians who specialize in the problem of adverse reactions lament the "blind" use of prescriptions from such old texts. For example, in a 2004 report on seventy-three cases of TCM poisoning that received emergency treatment at a hospital in Guizhou (including five women who used the blister beetle mylabris in attempts to induce abortion), the authors make the following observation:

Medical practitioners always rely on *Bencao gangmu* and other texts of its genre when treating illnesses with drugs; but such texts are ancient, and unavoidably their information is incomplete, lacking in detail, and sometimes wrong. For example, there is no experimental or clinical evidence whatsoever that mylabris is effective for inducing abortion or treating rabies. Nevertheless, because *Bencao gangmu* says that it can be used for these purposes, people have continued to do so right down to the present, resulting in countless episodes of adverse reactions

The authors list several other examples of prescriptions from classic pharmacopoeia that have caused illness, blindness, or death in recent years.⁴⁹ In the final section of this paper, I address the continued use in recent years of dangerous traditional abortifacients, including those whose disappearance from texts Li Bozhong hails as evidence of progress.

But also, it is not hard to find late Qing medical texts that offer what now appears to be dubious and even dangerous advice. For example, nineteenth-century annotations of the forensic manual used by all government coroners, *Xi yuan lu (Washing Away of Wrongs)*, explain that the blister beetle mylabris (which contains the potent toxin cantharidin, *banmao su*) is an effective treatment for rabies precisely because of its efficacy as an abortifacient. The reason is that the bite of a rabid dog impregnates the bitten person with tiny dogs that will kill the host if allowed to grow. Chicken eggs steamed with mylabris, if eaten, will cause these dog fetuses to be passed in the urine in the form of bloody clots. The patient must continue eating mylabris-laced eggs until no more blood clots appear. According to the text, this therapy is an example of "using poison to attack

⁴⁹ Ouyang Ju and Jiang Youzhong, "Zhongyao zhongdu yuanyin fenxi ji yufang cuoshi" (TCM poisoning: Causes and prevention), 724.

111

poison" (yi du gong du).⁵⁰ (Cantharidin causes kidney failure, which probably explains the blood clots.) Incidentally, the same forensic manual also provides the recipe for an *antidote* to mylabris poisoning. But this recipe includes lard (*zhu gao*); and toxicologists today warn that fatty foods will speed the absorption of cantharidin (the active agent in mylabris) and should be strictly avoided by anyone suffering from cantharidin intoxication. Therefore, it seems likely that the forensic manual's antidote might actually exacerbate the life-threatening effects of mylabris poisoning.⁵¹

As these examples suggest, a wider reading of medical texts does not support Li Bozhong's confidence in the march of progress. But there is another problem with Li's use of evidence: the pharmacopoeia he cites show that their elite authors may have *believed* these medicines to have contraceptive or abortifacient efficacy; but they do not prove that the medicines actually worked, or that they were even used by a significant number of people. This point is vital: clearly, some people believed (and some continue to believe) that one or another remedy worked as a contraceptive or abortifacient—for example, tadpoles, snails, blister beetles, saltwater, water chestnuts.... But that belief in itself cannot be taken as proof of efficacy.

Li argues that modern experiments have proven some of the drugs in question to have genuine therapeutic effect.⁵² But as Gigi Santow points out (in her skeptical review of John Riddle's history of emmenagogues and abortifacients in the West), laboratory tests and clinical trials do not replicate the real life circumstances in which such drugs were used in times past; they often test chemicals that have been extracted from crude materials and administered in precise doses (something not possible with traditional preparations).⁵³ Moreover, tests have also shown that many substances traditionally used for contraception or abortion (such as tadpoles) have no therapeutic value whatsoever.

⁵⁰ Xu Lian, *Xiyuanlu xiangyi* (Detailed meaning of *Washing Away of Wrongs*), 4: 19a–b; cf. Smith ("Chinese Blistering Flies," 19): "Chinese theory [is that] the bite of a mad dog impregnates the person, who is not safe until the delivery of a fetal dog by way of the urinary passages"; according to Smith, mylabris and the "red lady" (or "bride") cicada huechys (*hongniangzi*, *hongniang chong*) were used together "to induce abortion" of this kind. Versions of this idea appear in several medical classics, including *Bencao gangmu*, the common theme being that successful treatment of rabies requires the patient to pass tiny dogs or dog-shaped blood clots in the urine (e.g. BCGM, 1517).

For the antidote see Xu Lian, *Xiyuanlu xiangyi*, 4: 21b, and Ruan Qisi, *Chongkan buzhu Xiyuanlu jizheng (Washing Away of Wrongs*, reprinted with amendments, examples, and commentaries), 4: 19a; for cantharidin's toxicity see Moed et al., "Cantharidin Revisited," 1359.

Li Bozhong, "Duotai, biyun, yu jueyu," 175.

⁵³ Santow, Review of *Eve's Herbs*; cf. Santow, "Emmenagogues and Abortifacients," 82, Seidlecky, "Pharmacological Properties," 106–09, and van de Walle, "Flowers and Fruits," 185.

Li Bozhong admits that he has little empirical evidence about how widely such methods were actually used. ⁵⁴ But this inconvenient fact does not deter his claim, based on anecdotes from fiction and literati jottings, that by the Ming-Qing era the practice of abortion was "very common" (*shifen pubian*) throughout the Yangzi Delta, and that abortion services were "very easy to obtain" (*shifen rongyi huode*). By that time, the "great majority" of "birth control medicines" (*jieyu yaowu*) in use were "common Chinese medicines, and not particularly expensive, which made them easy to obtain." He makes similar claims about contraception and sterilization, while emphasizing the relative "maturity" and "widespread use" of abortion; overall, "traditional methods of fertility control became extremely popular." Therefore, Li concludes, "the notion that premodern demographic behavior was simply 'natural' fertility is absolutely incompatible with historical facts." But this conclusion rests on conjecture rather than hard evidence. ⁵⁸

It seems unlikely that abortion or contraception had a significant demographic impact. But that conclusion does not necessarily rule out the gender historians' claims about the termination of pregnancies by elite women in polygynous households. What evidence do they offer to support those claims?

The Gender Historians: Autonomous Fertility Control by Elite Wives?

Two distinguished historians of gender, Francesca Bray and Charlotte Furth, have used the writings of male literati physicians to study fertility regulation among elite women in late imperial China. ⁵⁹ As Bray and Furth make clear, these physicians portray abortion as a risky intervention justified only by medical

Li Bozhong, "Duotai, biyun, yu jueyu," 179. Much of Li's evidence comes from fiction, which he cites as if it were empirical fact; for example, he cites a single work of fiction to claim that massage abortion was "very common among the people" (minjian hen pubian) in Qing Dynasty Jiangnan (184). He also conflates prescriptions to treat fetal death in utero (seen as a medical emergency) with elective abortion for birth control (188–90). Perhaps his strongest evidence of abortion as birth control is a brief essay by the fourteenth-century literatus Kong Qi, which Li cites to the effect that Kong's wife often used abortifacients, as did the wife of Kong's friend Li Hanjie ("Duotai, biyun, yu jueyu," 180, 190). In fact, the point of Kong's essay is to warn of the potential lethality of these "poisonous drugs" (duyao), which should be used, if at all, with great caution and only during the first two months of pregnancy. Kong cites Li Hanjie's wife as a cautionary example, because she nearly bled to death after using an abortifacient – and she had already given birth more than ten times. Kong Qi, "Duotai dang jin" (Be cautious about abortion).

Li Bozhong, "Duotai, biyun, yu jueyu," 180, 189–90.

Li Bozhong, "Duotai, biyun, yu jueyu," 181, 196.

⁵⁷ Li Bozhong, "Duotai, biyun, yu jueyu," 172; cf. 196: "Traditional fertility in late imperial China, in other words, was hardly 'natural' fertility."

⁵⁸ Cf. Cao and Chen, "Ma'ersasi lilun he Qingdai yilai de Zhongguo renkou," 49.

⁵⁹ Bray, "A Deathly Disorder" and *Technology and Gender*; Furth, "Blood, Body, and Gender" and *A Flourishing Yin*.

emergency: they consistently warn that abortifacients are dangerous, and reinforce that warning by recounting illnesses and fatalities caused by attempts to induce abortion with such well-known drugs as ox knee (*niuxi*), musk (*shexiang*), and cinnamon (*rougui*). If a woman's life were at stake, however, physicians would prescribe abortifacients in an attempt to save her: without question, they prioritized the life of a woman over that of her fetus.⁶⁰

Nevertheless, Furth and Bray also maintain that traditional medicines for menstrual regulation (known as *tongjing yao*, "drugs to unblock the menses") gave elite wives a significant degree of control over their own fertility. When a woman's period was late, these powerful medicines could be used to "unblock" her menses; and male physicians would cooperate in this effort, because they agreed that regularity was the key to women's health and fertility. Moreover, some of the same ingredients in abortifacients were also used for *tongjing yao*. Bray and Furth believe, therefore, that elite wives could take advantage of these ambiguities to terminate unwanted pregnancies: in effect, early pregnancy was euphemized as "blocked" menses, to be treated with abortifacients euphemized as emmenagogues. Ambiguity is key, for no one, it seems, would explicitly acknowledge these interventions to be abortions.⁶¹

In my view, there are two problems here. First, their argument about elite wives' use of abortifacients for fertility control seems at odds with the explicit warnings about the dangers of abortion found in their sources. But Furth and Bray never resolve this contradiction.⁶² Second, they provide no documented examples of women actually terminating unwanted pregnancies in the manner they propose.

For inspiration, Furth and Bray cite Chor-Swang Ngin's fieldwork on folk methods of menstrual regulation among women of Chinese descent in Malaysia; Bray also cites similar findings by Carole Browner, who interviewed women

⁶⁰ Bray, Technology and Gender, 322–25, 335; Furth, A Flourishing Yin, 168–69, 252–56.

Some historians of Europe (e.g. Riddle, *Eve's Herbs*) make similar claims about traditional means of birth control; but many others disagree (e.g. Flemming, Review of *Eve's Herbs*; Santow, Review of *Eve's Herbs* and "Emmenagogues and Abortifacients"; Seidlecky, "Pharmacological Properties"; van de Walle, "Flowers and Fruits"). As Heuveline comments (in his review of *One Quarter of Humanity*), "similar knowledge has been claimed for other populations, but the efficiency of the mentioned techniques has remained dubious except for some abortion practices that so endangered the mother that their use must have been limited" (517). Cf. Brodie ("Menstrual Interventions in the Nineteenth-Century United States," 47–54) on the ambiguity between emmenagogues and abortifacients, and on the risks and dubious effectiveness of such herbs when used to induce abortion.

In "A Deathly Disorder," Bray stresses the dangers of abortifacients; nevertheless, here too she affirms that "treating amenorrhea' may in fact be a euphemism for administering an abortifacient" (241n11) and that "the ambiguities of the diagnosis of amenorrhea permitted a woman who suspected she might be in the early stages of pregnancy to exercise control over her fertility in the name of her long-term health" (249). Her book emphasizes the freedom of maneuver these drugs supposedly gave elite wives.

in Colombia.⁶³ Browner notes that Colombian women "utilize the ambiguity about when a pregnancy begins" in order to "regulate fertility":

Women have created an interval after conception but before assuming the role of pregnant during which they practice fertility regulation. This allows them to undo pregnancies they do not want while escaping the sanctions, including their own guilt, associated with the concept of abortion.⁶⁴

Similarly, Ngin explains that:

The ambiguity in folk beliefs about when a developing fetus becomes human makes the period between a missed menses and the positive identification of pregnancy a time in which menstrual induction cannot be subjected to negative legal sanctions or labeled medically as abortion ⁶⁵

Furth and Bray apply this idea to China: a seamless shift from the folk remedies of poor women in late twentieth-century Malaysia and Colombia, to elite women's medicine in late imperial China, implies that the same logic operated in all three milieus. Citing Ngin's doctoral dissertation, Furth observes that "menstrual therapies stressed fertility and procreation, but if a woman wished to have no more children, such medication could disguise an attempt at abortion"—in other words, "menstrual regulation' thrived on ambiguity about the facts of a woman's internal bodily state," so that "the desire for an abortion could remain inarticulate and so relatively blameless."

After quoting this passage from Furth, Francesca Bray concludes:

I would go further.... The medical sources show that orthodox gynecology provided elite women in late imperial China with an approved technology of reproductive control that offered certainly not total reproductive freedom but rather room to maneuver, the possibility of

⁶³ Ngin, "Reproductive Decisions and Contraceptive Use in a Chinese New Village in Malaysia" and "Indigenous Fertility Regulating Methods among Two Chinese Communities in Malaysia"; Browner, "The Management of Early Pregnancy" and "Traditional Techniques for Diagnosis, Treatment, and Control of Pregnancy in Cali, Colombia."

⁶⁴ Browner, "The Management of Early Pregnancy," 28, 31.

Ngin, "Indigenous Fertility Regulating Methods," 40.

⁶⁶ Furth, "Blood, Body, and Gender," 64–65.

115

cultivating the role of *mater*, or social mother, maybe at the expense of that of an endlessly fruitful *progenitrix*, or biological mother.⁶⁷

Bray's larger argument is that an elite wife would practice birth control (using the rhetoric of menstrual regulation as a cover for terminating unwanted pregnancies) in order to facilitate a division of labor in which she monopolized the authority and prestige of *social* motherhood, while displacing the duties and risks of *biological* motherhood onto the subordinate women of her household (concubines and maidservants) who were also sexually available to her husband. In other words, "flexibility of reproductive maneuver was restricted to high-ranked women and depended on exploiting the inequalities within female hierarchies." ⁶⁸

To succeed, however, this exploitative division of labor would presumably depend on an elite wife's ability actually to avoid bearing children—that is, it presupposes that this "technology of reproductive control" actually worked, and also was safe enough for routine use. Otherwise, how much "room to maneuver" could it provide?

But Bray avoids the question of efficacy, and what little evidence she does present gives little reason for confidence. Both she and Furth attribute great importance to an episode recorded by the seventeenth-century physician Cheng Maoxian, in which Cheng reports his treatment of his own wife during a difficult pregnancy.⁶⁹ Her health had already been severely depleted by many previous difficult pregnancies when, at the age of 40 *sui*, she missed her period. Fearing that it would be dangerous for her to carry yet another pregnancy to term, Cheng administered "drugs to unblock the menses" (*tongjing yao*), but without effect. Bray terms this situation "a classic case of 'possible pregnancy," and compares Mrs. Cheng's dosing with *tongjing yao* to the ambiguous self-medication of the Colombian women interviewed by Browner.⁷⁰ I would call it instead a classic case of resorting to abortion in a medical emergency: the original text leaves little doubt that this was an attempt to terminate the pregnancy.⁷¹

⁶⁷ Bray, Technology and Gender, 334.

⁶⁸ Bray, Technology and Gender, 336; cf. 347–68.

⁶⁹ Bray, *Technology and Gender*, 323–24, 329; Furth, *A Flourishing Yin*, 252–55. The translation in Bray was also prepared by Furth (see Bray, *Technology and Gender*, 324n18), but it differs from the translation presented in Furth's own book in a number of details. For the original text see Cheng Maoxian, *Cheng Maoxian yi an* (Cheng Maoxian's medical cases), 3:4b–6a.

⁷⁰ Bray, Technology and Gender, 329.

After two or three doses of *tongjing yao* had no effect, Cheng and his wife "did not dare" (*bu gan*) use more—the text does not say *why* they did not dare, but Bray speculates that they had concluded she was pregnant and did not want to harm the fetus (*Technology and Gender*, 324, 329). Since the reason to use *tongjing yao* in the first place was that they "feared" (*kong*) she was pregnant, this interpretation does not

Some months later, Cheng's wife began to hemorrhage and he thought she might miscarry. Believing that a miscarriage would be "a blessing in disguise," Cheng tried to induce one by dosing her with "drugs to break the blood" (*poxue yao*). But this second attempt also failed, and she survived, eventually giving birth to a healthy baby boy.

Cheng attributes this outcome to fate: the boy was fated to be born, and nothing could stop him. But there is a simpler explanation: Cheng's wife was forced to carry her pregnancy to term because the drugs simply did not work. Moreover, her prior history of multiple depleting pregnancies indicates the very opposite of effective birth control; she reminds us of Gui Youguang's exhausted mother, who was enslaved to pregnancy throughout her short married life. In commenting on the story of Cheng's wife, Charlotte Furth concedes this point explicitly: "Menstrual regulating and Blood-breaking (*poxue*) formulas emerge as potentially dangerous yet unreliable abortifacients." But neither Furth nor Bray tries to reconcile this conclusion with the argument that elite wives gained "room to maneuver" by using *tongjing yao* to terminate unwanted pregnancies.

Significantly, neither Carole Browner nor Chor-Swang Ngin claims that the folk remedies used by their Colombian and Malaysian informants were actually effective. Instead, both scholars focus on the "perceived attributes" of those remedies, in order to understand the mentality of women who would continue to use them despite the availability of modern ones that presumably are more reliable. Their evidence suggests that folk remedies were far from effective at preventing or terminating pregnancies. In fact, one motive for both scholars' research was to help develop more effective programs for delivering modern birth control to a wider population.⁷³

seem plausible. It seems more likely they stopped because *tongjing yao* was dangerous in large doses and Cheng feared harming his wife further. Cheng's account makes clear that his motive throughout was urgent concern for *her* safety, which he would not have jeopardized for the sake of yet another child. I am grateful to Yi-li Wu for her expert help interpreting this text.

Furth, A Flourishing Yin, 255. Furth cites this episode as evidence that women had autonomous control over fertility drugs, but the original text provides little support for her claim. In several places in her two translations (the one used by Bray and the one in Furth's own book), where the original text has no pronoun (because classical Chinese does not require one when context is clear), Furth inserts the pronoun "she" to suggest that Cheng's wife was making decisions and taking action independently (hence, "even though this was a physician's family, his wife managed her own menstrual regulating medicines"). Despite the absence of pronouns, I see no ambiguity in the original text: Cheng exercises authority as husband, physician, and author, and his supervision of his wife's treatment is obvious (A Flourishing Yin, 255).

⁷³ See especially Ngin, "Reproductive Decision and Contraceptive Use," introduction and conclusion. Among Ngin's informants, only 26.5 percent of rural women and 16.6 percent of urban women still used folk methods, because modern contraception was increasingly available ("Indigenous Fertility Regulating Methods"); the oldest cohort of rural women (aged 40–44, the most likely to have relied on folk methods)

It may be true that some elite women exploited the ambiguity of menstrual regulation to terminate unwanted pregnancies, as a form of birth control. Perhaps wealth gave them access to practitioners skilled enough to reduce the risks of these drugs to an acceptable level, so that they could be used for elective abortion. But Bray and Furth provide no clear evidence of anyone actually doing so—and without such evidence, their argument remains conjecture. Moreover, there is ample reason for skepticism.

As Bray points out, some of the drugs used to "unblock the menses" (tongjing) were also used to "break blood" (poxue) or to "induce abortion" (datai), and there is certainly some ambiguity in the category "tongjing yao." This term is usually translated as "emmenagogue"; but as we have seen, Cheng Maoxian's wife took what Cheng called "tongjing yao" in her first attempt to abort, and in modern Taiwan, the terms "tongjing" (unblocking the menses) and "tiaojing" (regulating the menses) are sometimes euphemisms for abortion services.⁷⁴

Nevertheless, it is not clear how much ambiguity between menstrual regulation and abortion existed *in practice*. Dosage would likely vary, depending on the purpose for which the drugs were intended; but Bray and Furth say little about dosage. Bray does note that the dose of ox knee root used to induce abortion in a case cited by the eighteenth-century physician Xu Dachun was some *thirty to fifty times larger* than the tiny amounts "usually prescribed"; and that patient ended up dying of hemorrhage.⁷⁵ This observation seems to confirm that the same drug might be used very differently when intended as an abortifacient as opposed to a simple emmenagogue. Nor is it clear how casually such drugs would be used: some medical authorities argue that such powerful drugs should be avoided unless absolutely necessary. For example, as Bray herself points out, Xu Dachun cautions against using *tongjing yao* to treat amenorrhea, warning that "these are drugs that can kill."

had an average of seven living children, suggesting that if they used birth control it was unreliable (Ngin, "Reproductive Decisions and Contraceptive Use," table 9.1). In one study, Browner interviewed 207 pregnant women at a prenatal care center; 73 described their pregnancies as "unwanted." 55 percent of the women with unwanted pregnancies had used folk methods in an attempt to "restore" menses, without success; so had 23 percent of women with pregnancies described as "wanted" at time of interview (Browner, "Traditional Techniques"). She notes that "acceptance of pregnancy may ... follow repeated failure of folk abortifacients: as [one woman] explained, 'I was going to have [the baby] because there just weren't any more remedies left" (Browner, "The Management of Early Pregnancy," 31); another said, "I used them all but none of them worked for me, nor for my sister either" (ibid., 30).

⁷⁴ Bray, *Technology and Gender*, 332n37.

⁷⁵ Bray, *Technology and Gender*, 322n11. Cf. an 1870 case from America in which a woman accustomed to using small doses of oil of tansy as an emmenagogue suffered convulsions and nearly died after taking a triple or quadruple dose in an attempt to induce abortion. Many women who overdosed in this way did die (Brodie, "Menstrual Interventions," 48).

⁷⁶ Cited in Bray, "A Deathly Disorder," 247–49, and *Technology and Gender*, 332, cf. 333. The drugs Xu cites were also used as abortifacients and some are potentially lethal, e.g. the "blue lady" blister beetle lytta

It would be interesting to learn whether the fertility of elite wives differed from that of their husbands' concubines to any significant degree. If Bray is correct, one would expect the fertility of wives to be consistently lower than that of concubines. Even if such a pattern could be established, however, it would not necessarily follow that the reason was the wives' use of abortifacients. The standard excuse for taking a concubine (and in orthodox terms, the only acceptable one) was the wife's apparent infertility. But even if the wife were fertile, such a pattern might simply reflect a preference on the part of husbands for having sex with concubines instead of wives (the marriage of husband to wife was arranged, whereas men could select concubines to suit personal taste).

Bray's larger thesis about a division of labor between social and biological motherhood in the polygynous household—which is perfectly plausible—does not require that wives used medicines for fertility control. After all, one of Bray's main contributions is to show how polygyny could serve the interests of elite women, and as she herself points out, there are many documented examples of wives acquiring concubines *for* their husbands.⁷⁷ Male authors portray this act as exemplary self-abnegation, in which a wife subordinated her own natural jealousy to her husband's comfort—but that interpretation assumes that these wives wanted to have sex with their husbands.⁷⁸ If a wife really wanted to avoid the biological duties of her role, what better way than to provide her husband with an attractive younger woman? This simple expedient would seem far preferable to dosing oneself with toxic drugs.

Abortion in Qing Legal Records

To sum up the discussion so far, the demographic historians and the gender historians provide little qualitative evidence to support their claims. Significantly, they fail to provide clear, documented examples of anyone actually using abortion (or any other means) for routine birth control, either to limit family size or to avoid the biological duties of the wife/mother role. Nevertheless, important questions remain. Who actually did attempt abortion, and under what circumstances?

⁽yuanqing or qingniangzi, which, like mylabris, contains cantharidin) and the "red lady" cicada huechys. Xu Dachun, Xu Dachun yi shu quanji (Medical writings of Xu Dachun), 2:1846.

⁷⁷ Bray, *Technology and Gender*, 356–58; cf. Patricia Ebrey, *The Inner Quarters*, 220–21; Susan Mann, *The Talented Women of the Zhang Family*, 189; Janice Stockard, *Daughters of the Canton Delta*, 48–69. By custom, acquiring a concubine depended on the wife's approval; typically, a new concubine's first act would be to serve tea to the wife, in a ritual of obeisance (Jaschok, *Concubines and Bondservants*, 95; Watson, "Wives, Concubines, and Maids," 240).

⁷⁸ See Patricia Ebrey's speculations about the feelings of a hypothetical elite wife whose "fairly normal sex life" was interrupted by her husband's acquisition of a teenage concubine (*The Inner Quarters*, 166–67).

Probably the richest untapped source for investigating this topic is Qing legal case records, which sometimes document attempts at abortion. But to make sense of this evidence, we need a firm grasp of how abortion figured in Qing legal thinking.

Abortion in Qing Law

American scholars interested in the history of abortion in China have generally looked to Qing law to find out whether abortion was *legal*. This line of inquiry dates to a seminal article by Bernard Luk, in which he observes that the Qing Code contains no explicit, blanket prohibition of abortion. But Luk goes on to characterize that lack of prohibition as "the traditional Chinese freedom to abort," which supposedly gave a Chinese woman "far greater freedom than her Western sister to dispose of the contents of her womb. Subsequent scholars have tended to invoke Luk's misleading notion of "freedom." For example, Francesca Bray—with Luk as her only source—goes so far as to attribute explicit legal rights to individual women in the Qing dynasty (something that Luk himself does not do): "A mother was above her child, born or unborn, in the hierarchy, so her life was more valuable and her right to dispose of her child was legally acknowledged." In fact, the law of no dynasty acknowledged any such "right."

The frame of reference for this line of thinking is the modern American controversy over abortion. In the United States, abortion is consistently framed as a question of what role the government should play in securing individual rights: should it protect a woman's "right to choose," or a fetus's "right to life"? But it makes no sense to apply this frame of reference to Qing law, which had no doctrine of rights or even a word for that concept, and which in principle acknowledged no limit to its reach into the lives of the emperor's subjects. Only by setting aside the anachronistic framework of rights can we understand the place of abortion in Qing law.

Whereas late imperial medical texts depict abortion as a risky intervention justified by a medical crisis, Qing legal texts portray abortion as a desperate

⁷⁹ Luk, "Abortion in Chinese Law." It would be wrong to assume indifference on the part of Qing lawmakers toward an unborn fetus. For example, the Qing code added extra penalties for physical assault that caused a woman to miscarry (ibid., 379). The code also prohibited the use of torture when interrogating a pregnant female suspect, and the execution of a pregnant female offender; a woman was to be allowed to give birth before enduring torture or execution. The point of both rules was to avoid harming the fetus. Xue Yunsheng, *Duli cunyi chongkanben* (A new edition of *Lingering Doubts upon Reading the Substatutes*, hereafter cited as DC), statute 420–00 and substatutes.

Luk, "Abortion in Chinese Law," 382, 384.

Bray, Technology and Gender, 334.

and potentially fatal act occasioned by the social crisis of adultery. As far as I can tell, abortion appeared in Qing courts only in this context. Occasionally, for example, an adulteress who became pregnant was exposed despite a successful abortion, in which case she and her lover would be prosecuted for their illicit sexual relationship. En most cases that appear in the archives, however, a woman who became pregnant by illicit sex had attempted abortion to avoid exposure, and the abortifacient drugs had killed her. In this situation, prosecution would target whoever had provided the fatal abortifacient.

The key text is a substatute promulgated in 1740, found in the Qing Code's chapter on "forcibly causing another person's death because of illicit sex" (*yin jian weibi ren zhi si*):

If a woman becomes pregnant because of illicit sex (yin jian you *yun*) and, fearing discovery, discusses this with the man with whom she has had illicit sex, and then uses a drug to induce abortion (yong yao da tai), with the result that she aborts and dies, then the man shall be sentenced to 100 blows of the heavy bamboo and life exile at a distance of 3,000 *li*, in analogy to the statute on "knowingly selling poison to another for the purpose of committing homicide" (yi duyao sha ren zhi qing mai yao zhe). If the man and woman who have illicit sex are related within the mourning system, and the penalty for their sex offense is greater than life exile, then he should be sentenced according to the relevant statute against illicit sex [instead of the present substatute]. If a woman who commits illicit sex herself asks someone else to buy the abortifacient [that causes her death], and her partner in illicit sex does not know about the situation, then he shall be punished only for his offense of illicit sex [and not for causing her death].83

During the Qing Dynasty, a new law would typically be issued in response to requests from provincial officials who had encountered cases of a particular scenario not precisely covered by the code. 84 (The ideal of Qing legislation was to anticipate every possible variation of crime and mandate precise penalties, in order to reduce the local magistrate to a fact-finder.) The promulgation of the 1740 substatute suggests that magistrates had had to judge a significant number of cases that fit this scenario.

e.g. Ba County Archive (hereafter cited as BX), case 8951, Daoguang 12.

⁸³ DC. substatute 299–11.

⁸⁴ For an example of how this worked, see Sommer, Sex, Law, and Society in Late Imperial China, 124.

According to the eighteenth-century jurist Wu Tan, "previously, no law had specifically addressed this scenario, so provincial officials used to handle such cases in various ways, without any consistent policy. The present substatute was promulgated to meet this need." One way that such cases were handled prior to 1740 can be seen in a case from 1737, in which a man who had provided his partner in adultery with an abortifacient that killed her was sentenced to beheading after the assizes, by analogy to the basic (and rather vague) statute against "forcibly causing someone's death because of illicit sex." Wu Tan comments that such a sentence "would be excessive, because these incidents typically arise from consensual illicit sexual relations in which no 'forcible causing' (weibi) is involved"; but he cautions that it would be too lenient to sentence the man only for adultery, since that adultery "had caused a death." Hence, the balance struck by the 1740 substatute.

The substatute demonstrates an acute awareness that adultery might lead to abortion, and moreover that an abortion attempt might well be fatal. The specific analogy drawn by the substatute in order to determine the appropriate penalty underscores the perceived danger of abortion: an abortifacient drug is analogous to deadly poison (deadly for the woman, that is), and a man who provides an abortifacient that proves fatal to the woman corresponds to someone who knowingly abets murder by supplying its means. The implication is that the man *should have known* that an attempt to induce abortion entailed risk of death. As Wu Tan explains,

The drugs used to induce abortion are all extraordinarily harsh (*kulie*) in nature, so that even one out of ten women who suffer their effects may not survive (*shi wu yi sheng*). In this scenario, although the adulteress's misfortune is of her own making, the man with whom she had adultery first ruined her chastity and then took her life, so it would be inappropriate to let him off lightly [by sentencing him only for his crime of illicit sex].⁸⁸

In proposing a fatality rate of over 90 percent, Wu Tan may have been exaggerating for rhetorical effect. Nevertheless, his basic point about the potential

⁸⁵ Wu Tan, *Da Qing lüli tongkao jiaozhu* (Edited and annotated edition of *Thorough Examination of the Qing Code*), 810–811.

Neige xingke tiben (Grand Secretariat routine memorials on criminal matters, hereafter cited as XT), #28–2, Qianlong 1.12.14 (cf. XT, #12–6 and XT, #30–19, both Qianlong 1); DC, statute 299–00.

Wu Tan, Da Qing lüli tongkao jiaozhu, 810–11.

Wu Tan, Da Qing lüli tongkao jiaozhu, 810-11.

lethality of abortifacient drugs conforms to the rest of the available evidence. As an experienced senior jurist, Wu was presumably in a position to know what he was talking about.

The 1740 substatute addresses only an adulterer who procured an abortifacient for his partner, causing her death; but a physician, herbalist, or midwife who supplied an abortifacient in this scenario would also receive severe penalties. Case records show that several different laws could be cited to sentence these individuals, and there appears to have been no absolutely consistent policy. For example, the Qing Code's basic statute against "fighting" (*dou ou*) contains a clause that reads: "Whoever severs another person's tendons, blinds another person in both eyes, aborts another person's fetus (*duo ren tai*), or wounds another person with an edged weapon, shall be sentenced to two years of penal servitude." In a 1767 case, this clause was cited to sentence a physician who had provided an adulteress with a fatal abortifacient. In other cases, we find the 1740 substatute being cited for this purpose, with the practitioner who provided the abortifacient receiving a sentence reduced by one degree, as "an accomplice" (in contrast with the "ringleader," that is, the adulterer).

In the early nineteenth century, the judiciary settled on a policy of sentencing providers of fatal abortifacients to adulteresses by analogy to a statute in the Qing Code's chapter on "fraud" (*zhawei*). This statute assigns penalties for various kinds of malingering to avoid official responsibility, including a criminal defendant who purposely inflicts self-injury in order to evade interrogation and punishment. It adds that

anyone who agrees to injure [such a defendant] for pay (*shou gu zhai wei ren shang can zhe*) shall receive the same penalty as the defendant; but if the defendant dies as a result of such injury, the person who accepted pay to injure him shall receive the penalty for "homicide in a fight" (*dousha*) reduced by one degree.⁹²

⁸⁹ DC, statute 302-00.

⁹⁰ XT, #1000–3, Qianlong 32.6.20; XT, #1011–14, Qianlong 32.8.9. Because of its context (in the statute against "fighting"), Bernard Luk interprets this clause to refer to "abortion-in-assault"—i.e. "the inadvertent act of causing a pregnant woman to abort" by physical assault ("Abortion in Chinese Law," 373). But there is nothing in the statute's language to limit its application to that particular scenario, and the case I cite here simply refers to it as "the statute against aborting another person's fetus" (*duo ren tai lū*).

⁹¹ E.g. a 1774 case in which a midwife who provided a fatal abortifacient for a pregnant prostitute and a man who helped convey the prostitute to the midwife were both sentenced in this way. Zhu Qingqi et al., eds., *Xing'an huilan san bian* (Conspectus of penal cases, with sequels), 2:1328.

⁹² DC, statute 364–00.

123

The logic behind this analogy is that a woman who has become pregnant by adultery is a criminal, and for her to induce abortion to conceal her adultery constitutes an effort to evade punishment through self-injury; therefore, a physician or herbalist who sells her an abortifacient would, in effect, be accepting pay in exchange for injuring her to abet her evasion of responsibility. Hence, if the abortifacient kills the adulteress, then the final line of this clause should apply: the resulting penalty would be 100 blows of the heavy bamboo and life exile at a distance of 3,000 *li*, i.e. the same penalty imposed by the 1740 substatute on an adulterer who provided his partner with a fatal abortifacient. This neat equivalence in penalties was clearly intentional. Once again, the analogy underscores the perception of high risk: to induce abortion amounts to self-injury, and to sell an abortifacient is the equivalent of accepting pay in order to injure another person.⁹³

This perception is reinforced by Qing editions of the official forensic manual, *Xi yuan lu (Washing Away of Wrongs)*. These texts include descriptions of the corpses of women who had died after ingesting abortifacient drugs, along with instructions about how to determine the cause of death in such cases. For example, one edition describes the corpse of a woman from Le'an county, Jiangxi, who died of hemorrhage in 1794 after swallowing an abortifacient concoction of musk and Tibetan saffron (*honghua*). These forensic manuals also prescribe antidotes for poisoning by the blister beetles mylabris and lytta; both insects were believed to have abortifacient properties, and attempted abortion was (and remains) a major reason for such poisoning. S

To sum up, if we set aside the question of "rights," we find that Qing legal texts portray abortion as a desperate and possibly fatal act attempted by a woman who had become pregnant in an illicit sexual relationship. The priority of Qing law was not to prohibit abortion per se, but to punish adulterers—as well as others who had abetted an attempt to induce abortion that caused the death of an adulteress. I should add, however, that I have seen no indication in any Qing legal text that abortion *outside* the context of adultery was commonplace, or was socially or legally acceptable.

⁹³ See Zhu Qingqi et al., eds., *Xing'an huilan san bian*, 3:1930, for an 1817 case from Sichuan that set this precedent; cf. BX, case 1618, Xianfeng 10.9. In one 1738 case, when an attempt to induce abortion (with a decoction of musk) resulted in partial abortion with retained placenta, a midwife was brought in to try to save the woman, who died nevertheless. Although the midwife had played no role in inducing the abortion, she was sentenced to a beating according to the statute against "doing things that ought not to be done—severe cases" (*bu ying zhong*) (XT, #90–6, Qianlong 3.12.12).

⁹⁴ Ge Yuanxu, *Xiyuanlu zhiyi* (Choice omissions in *Washing Away of Wrongs*), 1:4a, 2:17a; cf. Ruan Qisi, *Chongkan buzhu Xiyuanlu jizheng*, 1:34a.

⁹⁵ e.g. Ruan Qisi, Chongkan buzhu Xiyuanlu jizheng, 4:19a; Xu Lian, Xiyuanlu xiangyi, 4:21b–22a. For the continuing problem of unsafe abortion using mylabris, see the final section of this paper.

The Practice of Abortion as Seen in Qing Legal Cases

I have come across quite a few legal cases in Qing archives that involved abortion. I did not have the foresight to copy them all; but I do have a sample of 26 that I consider representative. ⁹⁶ I supplement these 26 cases from the archives with five others that are summarized in official casebooks. ⁹⁷ The total sample of 31 cases includes 24 completed attempts at abortion and three incomplete attempts (in which the woman was interrupted and prevented from continuing), as well as four cases in which women actively sought means of abortion but failed to obtain them.

The obvious problem with using legal cases to assess social practice is that they tend to record only people who got in trouble. All of the abortion attempts I have seen in Qing legal records involved women who had become pregnant because of illicit sexual relations; and at least two-thirds of these attempts ended in death. If it were true that many married women routinely and safely induced abortion as part of an accepted regime of birth control, they would not likely appear in legal case records. But the problem with such a supposition is that they do not seem to appear in any other source, either. It is difficult to argue for the existence of a widespread social practice on the basis of no documented examples.

The great advantage of these legal cases is that they do provide 27 documented examples—some very detailed—of actual attempts to induce abortion, revealing the social context, the means employed, and the consequences; moreover, they involve ordinary women, rather than the elite wives who are the focus of Ming-Qing medical texts. I assume this sample is skewed to some extent—I assume, for example, that most attempted abortions were never reported to the authorities, regardless of outcome. Even so, Qing legal records appear to provide the only documented examples we have of the actual practice of abortion in late imperial China, aside from the medical texts cited by Bray and Furth (which do not seem to support their argument). Moreover, many other cases that do not involve abortion attempts nevertheless shed light on the *availability* of abortion (and of birth control in general)—and this evidence proves (*pace* Li Bozhong) that even women who wanted an abortion could not necessarily get one. The evidence from legal cases may not allow for definitive conclusions.

⁹⁶ 22 are "routine memorials on criminal matters" (*xingke tiben*, in which provincial governors reported major cases to the imperial center for review) from the eighteenth and nineteenth centuries, and four are cases from the local court archive of Ba county, Sichuan, from the nineteenth century.

⁹⁷ Zhu Qingqi et al., eds., *Xing'an huilan san bian*, 2:138 and 3:1930; Xu Lian and Xiong E, eds., *Xingbu bizhao jia jian cheng'an* (Cases in which the Board of Punishment judged by analogy to raise or lower penalties), 297–98, 710; Zhen Ze and Shen Zhanlin, eds., *Jiangsu cheng'an* (Jiangsu cases), 134–35.

At very least, however, any theory about abortion in late imperial China should be able to account for this evidence.

The following table shows the marital status of the 31 women in my case sample who attempted or actively sought abortion.

Marital status of 31 women who attempted or sought abortion:

Widow, not remarried: 98 16 Wife whose husband is away: 5

Adopted daughter-in-law, has not yet consummated marriage: 3

Betrothed, not yet married: 2

Widow remarried to her brother-in-law:99 1

Single, not yet betrothed: 1

Buddhist nun: 1 Unclear: 2

One of the widows worked as a prostitute, and she is unique in this sample because her concern was to protect her livelihood rather than to keep her sexual relations secret—she feared that pregnancy would prevent her from earning a living. The other 30 women were all desperate to abort because they feared the consequences of having their extramarital sexual activity exposed. Why were they so afraid?

We should not assume that these women's families and communities necessarily shared the official and elite obsession with female chastity—it is questionable to what extent that value was embraced by ordinary people for its own sake. ¹⁰⁰ To be sure, at least some husbands and in-laws felt entitled to kill a woman who had committed adultery, although in such cases one can often discern ulterior motives. ¹⁰¹ Significantly, however, in nearly all of the abortion cases, we can identify specific factors that greatly raised the stakes for the people involved, giving them extra cause for anxiety beyond simple concern about losing face. (Some cases include more than one such factor.)

⁹⁸ Three of the women cited in the casebooks had been married (one can tell from their names) and almost certainly widowed (as suggested by the fact that no husbands are mentioned). I include them here as widows who had not remarried.

⁹⁹ In this 1800 case, from Lingling county, Hunan, remarriage by levirate was mandated by the widow's mother-in-law, in order to provide her surviving son with a wife. When the widow's natal family found out, they were outraged and threatened dire consequences, prompting the widow to deny that the remarriage had taken place and (when she found herself pregnant) to attempt abortion using a decoction of rice paper plant (*tongcao*). This abortifacient herb, which killed her, had been provided by a midwife for a fee of 4.5 *shi* of unhusked rice. XT, #2126–3, Jiaqing 5.10.15 & #2111–7, Jiaqing 5.5.21.

See, for example, Wolf and Huang, Marriage and Adoption in China, 159–60.

¹⁰¹ In Ming-Qing law, a husband who caught his wife in the act of adultery could kill her and her partner with impunity, as long as he acted at once (DC, statute 285–00; cf. Sommer, *Sex, Law, and Society*, 42).

Factors that raised the stakes for women pregnant by adultery:

Woman is a widow whose independence is at stake: 15

Woman is pregnant by incest: 11

Woman's sexual partner is a hired laborer: 5

Woman is a Buddhist nun, her sexual partner a monk: 1

Independent widows stand out in this list not only because they may have had more opportunity than other women to pursue illicit affairs. Most widows remarried soon after the first husband's death, out of necessity; but a widow whose husband had left her sufficient property would likely not remarry (unless she could obtain her in-laws' permission to bring in an uxorilocal husband). Crucially, however, a widow's independence (including control over her husband's property and custody of their children) depended on her reputation for chastity. If she was caught committing adultery, then her in-laws could seize her property and children and either return her to her natal family or sell her to the highest bidder. In such instances, chastity discourse was a weapon to deploy in conflicts over very material interests. ¹⁰²

The second factor that stands out is incest, usually involving sexual relations between women and close relatives of their husbands, which if exposed could lead to disastrous social and legal consequences. The Qing Code mandated the death penalty for sexual relations or marriage between a woman and her husband's brother, nephew, or uncle (even though levirate was far from rare in China)—and in several of these cases, that penalty was ultimately imposed. The death penalty also applied to at least some instances of sexual relations between a woman and a long-term hired laborer of her husband's household, a scenario that also appears in abortion cases. In the case involving a monk and a nun, exposure resulted in both being stripped of clerical status and hence losing their livelihoods (in addition to penalties for illicit sex, which were more severe for clergy). In all of these scenarios, both partners shared an urgent interest in avoiding exposure, which justified the great risk that attempting abortion evidently entailed.¹⁰³

What methods did these women use to attempt abortion, and how successful were they? Out of 27 attempts, one involved self-injury and we do not know the means used in one other; but 25 attempts involved abortifacient drugs. 10 cases list the specific drugs, and several explain exactly how they were used. Most of the drugs were taken orally, but some were used as vaginal suppositories or abdominal plasters.

¹⁰² Sommer, Sex, Law, and Society, chapter 5 (esp. 172–77, 190–97).

¹⁰³ N.B.: In *Jinpingmei*, Pan Jinlian is both a widow and pregnant by incest when she induces abortion.

For example, an 1850 case from the local court archive of Ba county, Sichuan, involved the widow Tan Liu Shi, of Wan county in the same province. She became pregnant from adultery with a relative of her dead husband's named Tan Huanda. During a visit to her natal home, her parents noticed her swelling abdomen and accused her of being pregnant. She denied it—but desperate to avoid discovery by her parents-*in-law*, she confided in a woman herbalist named Tan Fang Shi, begging her for an abortifacient and promising to pay her handsomely if it proved successful. Tan Fang Shi picked "a handful of ox knee (*niuxi*) root" behind her house (where it appears she had a garden), and gave it to Tan Liu Shi with instructions how to prepare it. Tan Liu Shi boiled the herb in water and drank its decoction; the next morning, she aborted the fetus and "threw it away." But she could not stop hemorrhaging (*xiebeng*), and after five days she died. Before dying, she admitted her adultery, pregnancy, and abortion, but refused to identify her lover or the herbalist who had supplied the drug.

Several years later, Tan Liu Shi's son learned from herbalist Tan Fang Shi exactly what had happened, and he took revenge for his mother's death by murdering her lover, Tan Huanda. This homicide was the focus of prosecution. Given the circumstances, Tan Liu Shi's son (the killer) received a much-reduced sentence of penal servitude, which he served in Ba county (for this reason, a record of the case survives in the Ba county archive). For providing the fatal abortifacient, Tan Fang Shi was sentenced to 100 blows of the heavy bamboo and exile at a distance of 3,000 *li* by analogy to the statute punishing "anyone who agrees to injure [a defendant] for pay, [so that] the defendant dies as a result of such injury." In the end, however, she avoided punishment because of an amnesty. 104

We have already encountered the herb Tan Liu Shi used to induce abortion, ox knee, which is commonly used in traditional Chinese medicine today. It is well known to have abortifacient properties and is a common ingredient in such preparations (both decoctions and vaginal suppositories): like many such herbs, it causes uterine bleeding, and the classic pharmacopoeia recommend it for treating amenorrhea and expelling retained placenta or a stillborn fetus, in addition to inducing abortion. Ox knee can be fatal in large doses. Tan Liu Shi's death is not unique: the medical texts cited by Bray and Furth also recount cases in which women died after taking large doses of ox knee to induce abortion. 105

BX, case 1618, Xianfeng 10.9; DC, statute 364–00.

Furth, *A Flourishing Yin*, 168–69; Bray, *Technology and Gender*, 322. The fourteenth-century literatus Kong Qi warns against using ox knee as an abortifacient suppository, because "few who do this survive" (*bu zhi yu yunjue zhe xian yi*) ("Duotai dang jin," 93). For toxicity of ox knee, see Xia Liying et al., eds., *Xiandai Zhongyao dulixue* (Modern toxicology of Chinese materia medica), 470–71.

A case from Haining county, Zhejiang, reported in 1739, involved the widow Xu Zhu Shi, who became pregnant while having an illicit sexual affair with her brother-in-law Lübing (45), who was a Buddhist monk. When the widow realized she was pregnant, she told Lübing "to get a drug so that she could induce an abortion" (nong vao datai). According to her son (who had known of her adultery but was afraid to confront her), "her abdomen was already big" at the time of her abortion attempt. Lübing later testified that at first he had refused to get an abortifacient; but she pressed him, going to his temple and refusing to leave until he complied. So finally he went to a pharmacy (yaodian) and bought three drugs: the red lady cicada huechys (hongniangzi), musk, and hawthorn fruit (shanzha); the record does not tell how much he bought or what they cost. He boiled these substances and gave the decoction to Xu Zhu Shi to drink. The result was severe abdominal pain, hemorrhage, and after thirty-six hours, death. Later, the magistrate asked Lübing, "Who taught you that abortifacient prescription?" The monk testified, "In the past I had heard people say that red lady cicada and musk can cause abortion (shi xia tai de), and that's why I bought them. Nobody taught me a prescription, and the guy at the pharmacy didn't know what I was going to do with the drugs." (It is possible that the monk lied to protect someone who had advised him, but the magistrate accepted his testimony.) The monk was sentenced to immediate strangulation for illicit sex with the wife of his older brother, which superseded the crime of procuring the abortifacient 106

The drugs that killed Xu Zhu Shi are well-known traditional Chinese materia medica. Hawthorn fruit is used to treat a variety of conditions, including amenorrhea, and is generally considered safe. Huechys, however, is highly toxic; its properties are similar to those of the blister beetles mylabris and lytta. All three insects are listed by the Hong Kong, Taiwan, and PRC governments as controlled toxic medicinal substances, and all three can be fatal even in small amounts if used internally (the typical causes of death being kidney failure and internal chemical burns). Musk, a pungent glandular secretion of the musk

¹⁰⁶ XT, #91–4, Qianlong 4.2.18. Also see Sommer, *Sex, Law, and Society*, 202–03; when I summarized this case in my book, I had not identified the ingredients of the abortifacient.

Hong Kong Baptist University Library, "Chinese Medicine Specimen Database," http://www.hkbu.edu. hk/lib/electronic/libdbs/scm_specimen.html.

Both blister beetles are close relatives of *lytta vesicatoria*, the notorious "Spanish fly" (this insect's reputation as an aphrodisiac stems from the fact that one symptom of cantharidin poisoning in men is priapism). Huechys apparently does not contain cantharidin, but its use in TCM is very similar to that of blister beetles. For huechys, mylabris, and lytta, see Li Xia et al., "Authentication of 31 Species of Toxic and Potent Chinese Materia Medica" and respective entries in Xia Liying et al., eds., *Xiandai Zhongyao dulixue*, and in Xu Guojun and Chen Jinquan, eds., *Xianggang changyong youdu Zhongyao tujian* (Illustrated guide to toxic traditional Chinese medicines commonly used in Hong Kong).

deer, is well known in TCM as an abortifacient, but it can also be lethal if used internally. 109

Musk appears again in a case from Jin'gui county, Jiangsu, reported in 1767, which concerns an adopted daughter-in-law named Zhu Shi (18 sui), who had not vet consummated marriage with her fiancé Chen Fulang (17 sui). She became pregnant during an affair with her in-laws' hired agricultural laborer, a widower named Ni Weiliang (45 sui). Ni had worked for the Chen family regularly since the age of 18 sui, receiving an annual wage of five or six taels. Zhu Shi feared for her life if her in-laws discovered her adultery. Ni told her he had heard that "if a woman carries musk on her person, she will abort" (furen shen bian pei dai shexiang jiu ke duotai), so she gave him 300 cash to buy musk. Ni asked his maternal cousin, a physician named Hua Qun, to buy a little musk, telling him he wanted it for scent. Zhu Shi wore the musk on her person for six weeks, but to no effect. Growing desperate, Ni finally told his cousin the truth and begged him for an abortifacient, saying that Zhu Shi's life and his own were in danger. Agreeing to help, Hua purchased borax (pengsha) and camphor (zhangnao), mixed them with musk, and formed the mixture into three balls, telling Ni that if Zhu Shi would "insert them into her vagina, then she *might* be able to abort the fetus" (sai ru yinhu huoke duo de tai xia). (The record does not give the amount or cost of these ingredients.) When later interrogated, however, Hua Qun insisted that "I am not someone who normally does abortions for people" (pingri ye bu shi guan dai renjia datai de).

Zhu Shi followed Hua's instructions, but after several days she fell ill with high fever and intense abdominal and pelvic pain. Her suspicious mother-in-law noticed the smell of musk and interrogated Zhu Shi, who confessed everything; the Chens then fetched Zhu Shi's brother, and she repeated her confession to him. Over the next few days Zhu Shi's condition worsened, so her brother carried her to Ni's home and left her there (the implication being that her death would be Ni's responsibility); at the same time, her father-in-law notified the local *baojia* head, who reported the scandal to the county yamen. The magistrate sent runners to arrest Ni and a physician to attend Zhu Shi. This physician diagnosed Zhu Shi's condition as terminal, but prescribed medicine "to secure the fetus" (*antai*) in an attempt to save her. Nevertheless, the next day (ten days after inserting the suppositories) Zhu Shi finally expelled the fetus and died.

¹⁰⁹ For musk toxicity, see Hu Lifa, "Shexiang zhongdu zhi jixing shen gongneng shuaijie er li" (Two cases of acute kidney failure caused by musk intoxication), which reports a case from Gansu in which a woman died of kidney failure after swallowing 3 grams of musk to induce abortion. A different source estimates the toxic dose to be 3 or more grams, with 6 grams being fatal—Ma Jianxin, "Changjian Zhongyao buliang fanying gai kuang" (Adverse reactions from some commonly used traditional Chinese medicines), 153.

Ni was sentenced to strangulation after the assizes as "a [long-term] hired laborer who has illicit sex with close relative of the head of his household" (the penalty for this offense superseded that for procuring the fatal abortifacient). For supplying the abortifacient, Hua Qun's sentence was two years' penal servitude and 80 blows of the heavy bamboo (according to the abortion clause of the statute against "fighting"). 110

A number of classic texts provide prescriptions for abortifacient suppositories that contain musk, like the one that killed Zhu Shi, often in combination with ox knee root. It have not found other abortifacient prescriptions containing borax or camphor, but camphor is highly toxic and, like musk, it can be lethal if used internally. It

The Qing legal cases I have seen confirm what other sources say, namely that drugs were by far the most common method used to attempt abortion. The results were grim: out of 24 women who completed abortion attempts, 17 died; of the seven who survived, six did succeed in inducing abortion, but at least two of them suffered severe side effects that made them ill for months (we lack detailed information on the others). The seventh survivor's attempt failed. To summarize, the apparent success rate in this sample was one in four (although because at least 15 percent of recognized pregnancies miscarry spontaneously, the actual success rate was probably even lower); in contrast, the *fatality* rate was more than two out of three. 114

This evidence suggests that traditional drugs were more likely to cause illness or death than to induce abortion safely. Of course, one must assume that negative outcomes would tend to be overrepresented in legal cases. Even so, this evidence helps us understand the warning by physician Xu Dachun that "these are drugs that can kill," the observation by jurist Wu Tan that "even one out of ten women who suffer their effects may not survive," and the assertion by Elizabeth Johnson's informants that traditional methods were so dangerous that "it is better to have three babies than one abortion."

¹¹⁰ XT, #1000–3, Qianlong 32.6.20 and XT, #1011–14, Qianlong 32.8.9; I am grateful to Janet Theiss for sharing her notes on this case.

¹¹¹ E.g. BCGM, 266, 711; Du Wenxie, *Yao jian* (Mirror of medicine), 107; Chen Jiamo. *Bencao mengquan* (Materia medica), 38.

¹¹² A 1997 article reports a near-fatal, unsuccessful abortion attempt in which a 16-year-old girl who was six weeks pregnant swallowed camphor; this case apparently occurred in Ireland, where abortion access is strictly limited. The authors report the human lethal dose to be 50–500mg per kg body weight. Walter Rabl et al., "Camphor ingestion for abortion (case report)," 137–38.

¹¹³ Cf. Bray, Technology and Gender, 325.

Of these 24 women, at least 23 used abortifacient drugs, including all 17 who died.

¹¹⁵ Wu Tan, *Da Qing lüli tongkao jiaozhu*, 810–11; Xu Dachun, *Xu Dachun yi shu quanji*, 2:1846; Johnson, "Women and Childbearing in Kwan Mun Hau Village," 237.

These cases certainly demonstrate a widespread awareness that abortion was possible (my sample represents Anhui, Fujian, Guangxi, Guizhou, Hunan, Jiangsu, Jiangxi, Shandong, Sichuan, Yunnan, Zhejiang, and Zhili), but also that there were many misconceptions and that actual methods of abortion constituted a fairly specialized field of knowledge. Many people, for example, seem to have been aware that musk has abortifacient properties (it was the smell of musk that made Zhu Shi's mother-in-law suspicious), but they did not necessarily know how to use it to induce an abortion—let alone how to do so safely. For example, Ni Weiliang believed that a woman could abort by simply smelling musk (this is an old wives' tale that persists in China today), and when that did not work he and his lover had no idea what to do. Moreover, all but one of the women who used abortifacient drugs had to obtain them from herbalists, midwives, or physicians, and the drugs cost money. 116

The Cost and Accessibility of Abortion

Since abortifacient drugs usually had to be purchased from people with some degree of specialized knowledge, an important factor in assessing the accessibility of abortion is price. How much did an abortion cost, and could most people afford one?

The raw ingredients of abortifacients must have ranged widely in price: a common herb like ox knee may have been cheap (or even free, if one knew how to find it oneself), whereas exotic substances like musk, camphor, cinnamon, and liquid mercury presumably cost far more. Musk is the abortifacient most frequently mentioned in my case sample (it was used in five out of the ten cases in which we can identify the abortifacient, often in combination with other drugs): it has long been prized as a costly ingredient in perfumes, as well as in Chinese medicines. Unfortunately, we do not know the amounts of specific ingredients used in preparing the abortifacients described in legal cases, nor the exact prices paid for most of them. In the last case cited above, for example, Ni Weiliang used 300 cash to buy a small amount of musk. This price can be compared to Ni's annual wage of five or six taels, which was worth about 4,000 cash at that time. But since we do not know exactly how much musk Ni bought (let alone its quality) or whether Hua Qun needed more to prepare the suppositories, it is impossible to evaluate this price. (Nor do we know the cost of the camphor and borax.) Because musk was so potent and so costly, presumably only very small

¹¹⁶ In the lone exception, an 1819 case from Shaoyang county, Hunan, a wife whose husband had long been away became pregnant during an affair with a hired laborer; she successfully induced abortion using a wild herb she picked herself, "local ox knee" (*tu niuxi*)—this term is used in different sources to refer to various plants, so it is not certain which one she used. XT, #2732–4, Jiaqing 24.11.17.

amounts were used. Still, two abortifacient prescriptions recorded by a British medical missionary in the nineteen-twenties show a wide range: a decoction to be taken orally contained just 0.37 gram of musk, whereas a suppository contained ten times that amount—and this latter dose would likely be dangerous, since as little as 3 grams can be lethal if used internally.¹¹⁷

Fortunately, we do know the cost of abortion in eight legal cases.¹¹⁸

Cost of abortion in eight legal cases, with place and year:

- 1) 3 taels of 70-percent cash (= 1.5 *shi* of husked rice); Jin'gui county, Jiangsu, 1773
- 2) 1,500-4,500 cash; Yongbei subprefecture, Yunnan, 1774
- 3) 1,000 cash; Yanghu county, Jiangsu, 1781
- 4) 4,100 cash; Cangwu county, Guangxi, 1788
- 5) 4.5 *shi* of unhusked rice (= 2.25 *shi* of husked rice); Lingling county, Hunan. 1800
- 6) 2,000 cash; Gao'an county, Jiangxi, 1802
- 7) 5 taels of silver; Guzhou subprefecture, Guizhou, 1815
- 8) 5 taels of silver; Yuqing county, Guizhou, 1842

To put these prices in perspective: 1.5 *shi* of husked rice constituted approximately one year's supply for one person; and annual wages for agricultural laborers during the eighteenth and early nineteenth centuries averaged about 3,000-5,000 cash or five to seven taels, depending on the medium of payment.¹¹⁹ Sometimes wives were sold for similar sums: for example, in a 1798 case from Yongshan County, Yunnan, a man pressed by poverty sold his wife (aged 25 *sui*, with a proven record of fertility) for just five taels of silver.¹²⁰

Let us take a closer look at two examples. In the 1773 case from Jin'gui county, Jiangsu (the same county as the case of Zhu Shi and Ni Weiliang recounted above), the widow Zhang Yang Shi (27) became pregnant during an affair with her dead husband's nephew, Zhang Bao. A friend of Zhang's, Pan

Maxwell, "On Criminal Abortion in China," 18; Hu Lifa, "Shexiang zhongdu zhi jixing shen gongneng shuaijie er li."

¹¹⁸ XT, #1280–4, Qianlong 38.8.24; XT, #1303, Qianlong 39.2.26; Zhen Ze and Shen Zhanlin, eds., *Jiangsu cheng 'an*, 134–35; XT, #1763–12, Qianlong 53.2.24; XT, #2126–3, Jiaqing 5.10.15 & #2111–7, Jiaqing 5.5.21; XT, #2171–2, Jiaqing 7.1.20; XT, #2586–13, Jiaqing 20.11.14; XT, #3323–6, Daoguang 22.5.28.

Philip Huang (*The Peasant Family and Rural Development*, 184) estimates consumption using annual rice allowances in Songiang county during the 1950s: 3–3.25 *shi* of unhusked rice per capita (not differentiating by age or sex). Unhusked rice converts to husked rice at a ratio of 2:1. For wages see Li Wenzhi et al., *Ming Qing shidai de nongye zibenzhuyi mengya wenti* (Sprouts of capitalism in Ming-Qing agriculture), 230–38

¹²⁰ XT, #2051-8, Jiaqing 3.2.27.

Yonglin, lived with his aunt Pan Zhang Shi (a widow aged 50), who was a midwife (*wenpo*). Zhang Bao asked Pan whether his aunt could induce an abortion, but Pan did not know; so he took Zhang to meet her.

The midwife later testified that "I had never done an abortion for anyone before" (congqian bing mei you ti ren daguo tai de), but her grandmother had told her how to do so long ago; so she agreed to help. Pan Zhang Shi stuck a small piece of musk onto the end of a stalk of "ox knee grass" (niuxi cao) and secured it with silk thread; she had guessed by palpation that Zhang Yang Shi was about five months pregnant, so she used a stalk that was five cun in length (about 6.5 inches), because her grandmother had told her its length should be one cun per month of pregnancy.¹²¹ She then inserted this device into Zhang Yang Shi's cervix (fang ru chanmen) and left it there; and within twenty-four hours, the widow hemorrhaged, aborted, and died. Given the stalk's length, it may have perforated the uterus.¹²²

The midwife agreed to provide this abortion in exchange for a fee of three taels of "70-percent cash," the equivalent of 2,100 standard cash. To pay this sum, Zhang gave Pan Zhang Shi one *shi* of husked rice (calculated as worth two taels of 70-percent cash, or 1,400 standard cash) and the balance in money. From this information we can calculate the real value of the fee as 1.5 *shi* of husked rice. The people involved in this case were all poor peasants, for whom this would have been a huge expense.

Of this fee, Zhang Bao first paid the midwife 0.4 tael (worth 280 standard cash) up front to use for buying the abortifacient's ingredients; he gave her the rice and the balance of the cash after she had inserted the abortifacient device. Since Pan Zhang Shi picked the ox knee grass herself (on the verge of a nearby rice paddy), the down payment presumably covered the cost of the musk. In other words, more than five-sixths of the midwife's fee compensated her for her knowledge of what to use and how to use it (knowledge that does not seem to have been commonplace), as well as for her discretion. 123

If we accept Pan Zhang Shi's testimony (as did the magistrate and his superiors), then abortion was not a routine part of her midwifery practice—indeed, she had never before even attempted one. Perhaps she was lying—perhaps, in fact, she routinely provided safe and effective abortions as birth control for married

¹²¹ "Ox knee grass" (*niuxi cao*) is hyssop, a fragrant herb that has emmenagogic and abortifacient properties (Ernst, "Herbal Medicinal Products during Pregnancy," 231). Despite their similar names in Chinese, this plant is apparently not the same ox knee (*niuxi*) of which the root is usually used.

¹²² Chanmen ("birth gate") can mean either vagina or cervix, but in this instance it clearly refers to the latter.

¹²³ XT, #1280-4, Qianlong 38.8.24.

couples, and the fatality in this particular case was a fluke. But if that is true—if in fact abortion was widely practiced, socially and legally acceptable, and a normal part of a midwife's job—then why would she lie? (And why didn't her nephew know whether she could induce an abortion?) Her claim that this was the first abortion she had ever attempted in no way mitigated her penalty for complicity in Zhang Yang Shi's death. One might apply the same reasoning to the doctor Hua Qun, who provided the suppository that killed Zhu Shi, but who also testified that he did not normally deal in abortifacients.

If the midwife *did* lie about her lack of experience with abortion, then the most plausible explanation would be that she sought to protect other clients who had become pregnant out of wedlock. Here we are engaged in speculation. But if abortion was closely associated with adultery in social practice as well as in legal discourse, then on previous occasions this midwife may have secretly administered abortifacients to other women in trouble, and in her testimony she may have sought to shield them from prosecution and scandal by pretending to lack such experience. But that scenario is very different from the notion that abortion was practiced by married couples as routine birth control. Moreover, it is entirely possible that the midwife simply told the truth.

Speculation aside, the fact that Zhang Bao agreed without protest to pay such a high fee indicates that he had no other option. He obviously did not have a menu of different abortion services available to compare prices.

The second case, from Yongbei subprefecture, Yunnan, reported in 1774, does not record the exact price of an abortion, but it does indicate the range in which this price fell. This case concerned a woman named Xiao Wan Shi (31), whose husband had been away for a long time. She helped to support herself by occasionally sleeping with a more prosperous neighbor, Li Xiu (35, a military licentiate who was married). He would pay her 100-200 cash each time they had sex, and they kept their relationship secret.

After seven months, Xiao Wan Shi became pregnant and she asked Li to give her 4,500 cash to buy an abortifacient. When Li protested at the expense (saying that surely the drug would not be that expensive), she threatened to carry the child to term and expose Li as the father, regardless of the consequences; so he gave her 1,500 cash, promising to pay the balance later on. She bought and used an unidentified abortifacient drug, but although the abortion was successful and she survived, the drug made her ill with vaginal bleeding and she was incapacitated for several months before gradually recovering. During this illness, she asked her patron to give her the promised balance of 3,000 cash, so that she could pay for medical treatment; but Li refused, reasoning that because the abortion had succeeded, he no longer needed to fear being exposed. His selfishness enraged

her, and after she finally recovered from her illness she refused to sleep with him anymore, instead taking up with another neighbor who agreed to help support her. Li became jealous, stalked her, and finally strangled her.

Given her negotiations with Li Xiu, Xiao Wan Shi probably paid between 1,500 and 4,500 cash for the abortifacient (she had requested the larger sum, and we do not know whether the smaller sum Li gave her covered the full cost of the drug). This price range can be compared to the 100-200 cash Li paid each time they had sex: she would have had to sleep with him some eight to fifteen times just to earn the lowest price in that range.¹²⁴

Given the limitations of the evidence on prices, any conclusions must be provisional. It is safe to say, however, that the eight abortions for which we do have prices would have been expensive for most people in Qing-Dynasty China (after all, even Li Xiu, the military licentiate, balked at paying 4,500 cash)—and for the poor, such prices might well have been prohibitive. These prices may reflect the high cost of some drugs; but in at least one case, the key factor seems to have been the sheer scarcity of abortion services, which enabled a midwife to demand an extortionate fee.

Indeed, cost was by no means the only factor in accessibility. Several other cases in which people desperately sought means of abortion, but were unable to find them, show that even those who could pay did not necessarily have access to abortion.

In a 1769 case from Shulu county, Zhili, a woman named Su Shi who became pregnant by adultery in her husband's absence committed suicide after her lover Zhao Heizi was unable to obtain an abortifacient drug for her to use. Su Shi had originally intended to commit suicide (to avoid the consequences of having her adultery exposed), but her lover stopped her by offering "to buy an abortifacient drug for you, so that you can get rid of it" (*ti ni mai fu datai de yao lai da xia lai ba*). But despite his efforts, Zhao "could not find any abortifacient drug" (*xun bu chu datai yao lai*), and Su Shi returned to her husband's home and committed suicide by eating arsenic.¹²⁵

Similarly, in a 1787 case from Fuyang county, Anhui, a man named Jia Debao (32) was unable to procure an abortifacient drug for his cousin Jia Dajie (19) after he had gotten her pregnant by adultery. When Dajie realized she was pregnant (Debao later testified), "she told me to buy a drug to use for an abortion" (*jiao wo mai datai yao*), and he agreed; but it turned out that "there was nowhere to buy such a drug" (*wu chu goumai*), and after four months (as her abdomen

¹²⁴ XT, #1301-5, Qianlong 39.2.26.

¹²⁵ XT, #1104-18, Qianlong 34.4.6.

began to show), he became desperate to avoid a scandal. Finally, he gave her rat poison mixed in wine (telling her it was an abortifacient), and she drank it and died. Since Jia Debao was a prosperous landowner (with two tenant farmers and a maidservant for his wife), the high price of an abortifacient was probably not the problem. Rather, he simply could not find one to buy.¹²⁶

In a 1773 case from Xing'an county, Guangxi, the widow Tang Yang Shi (41) became pregnant by adultery with a casual laborer, Li Chengzhong (41), whom she had hired for three months at a wage of 400 cash per month. Tang Yang Shi had a "goddaughter" (gan nüer) Zhao Shi, whose older brother Zhao Tinglin was a doctor. When she realized that she was pregnant, Tang Yang Shi had her lover ask Zhao Shi's husband, Tang Mingyi, to introduce her to Zhao Tinglin and persuade him to induce an abortion; she promised to pay Tang Mingyi one tael of silver for this service, and he agreed to help. But when Tang escorted the widow to Zhao's home, the doctor refused to administer an abortifacient, saying "that is against the law" (shi fan fa de shi). Tang Yang Shi insisted that he give her an abortifacient; but he adamantly refused to do so, and when she stayed on at his house, refusing to leave, he had his mother spend the night with her. After two days of stalemate, Tang Mingyi came to fetch her home, informing her that her in-laws (who had learned of her pregnancy) had killed her lover, Li Chengzhong.

Tang Yang Shi had a forceful personality and some financial means, yet she was unable to obtain an abortion. The doctor's refusal is as tantalizing as it is striking: unfortunately, his testimony does not record whether he knew how to induce an abortion; nor does it specify exactly *what* he believed to be "against the law" (that is, abortion in general, or just providing one for an adulteress). But his refusal was absolute. Tang Yang Shi evidently knew of no other way to get an abortion, because she ended up carrying the pregnancy to term and bearing a stillborn infant. She was then prosecuted and beaten for adultery. 127

The particular circumstances in these three cases varied, and we have no way of knowing all the factors involved. But it is clear that these women would have terminated their pregnancies if they had had the means to do so. Moreover (to state the obvious), they lacked effective means of avoiding pregnancy in the first place.

If a woman could not afford an abortifacient drug, or for any other reason could not obtain one, what else might she do? In a 1762 case from Renqiu county, Zhili, the widow Ma Shi (27) attempted abortion by self-injury after becoming pregnant while having an affair with her hired laborer Li An (25).

¹²⁶ XT, #1760-11, Qianlong 52.12.17.

¹²⁷ XT, #1275-4, Qianlong 38.7.12.

She was desperate to prevent her brother- and sister-in-law from finding out about her adultery, because she feared they would expel her and seize her dead husband's property and her children. Li An later testified, "she said, 'We're in trouble—I'm pregnant. Now don't worry about me, just come quickly and step on my stomach.' Then she lay down on her back on the *kang*, and I got on top and stepped on her two or three times." But just then Ma Shi's sister-in-law walked in on them and immediately realized that Ma Shi must be trying to abort a pregnancy. Ma Shi and Li An kowtowed to the sister-in-law, begging her to conceal their secret from her husband, but when she demurred the couple decided to commit suicide together. Li An then murdered Ma Shi, her sister-in-law, and their two daughters, and tried (but failed) to commit suicide. Li was sentenced to dismemberment for the crime of killing more than three persons of a single household. 128

The crudeness of this abortion attempt reflects the protagonists' desperation and lack of options—one is reminded of Hua Han's informants who attempted to induce abortion by striking their abdomens with the beating bar of a loom. Such methods would almost certainly fail, and obviously could be dangerous; but like Han's informants, this couple evidently had access to no other way to terminate a pregnancy. It is intriguing, however, that her sister-in-law realized what was going on when she saw Li stepping on Ma Shi's abdomen; apparently there was no other plausible explanation for such behavior.

This example makes me wonder about the many cases of female "suicide" that can be found in Qing legal archives. 129 Many concern young peasant women who died after swallowing poisonous substances that were readily available in rural settings: for example, arsenic (used for pesticide and treating skin sores); pickling brine; certain wild plants, such as "bowel-breaking poison weed" (duanchang ducao); 130 and in the late nineteenth century, opium. No doubt the great majority of these deaths were genuine suicides; but I suspect (without being able to prove) that at least some may have resulted from attempts to induce abortion on the part of women who did not have access to specialists, and who in desperation resorted to toxic materials ready at hand. One can certainly find this pattern of behavior elsewhere (such as in the United States before *Roe vs. Wade*). 131 In such cases, the actual circumstances may have gone unrecognized,

¹²⁸ XT, #795-6, Qianlong 27.3.26. For a detailed account, see Sommer, Sex, Law, and Society, 203-04.

¹²⁹ In early twentieth-century Taiwan, suicide rates were far higher for women than for men, and were especially high among women in their late teens and early twenties (Margery Wolf, "Women and Suicide").

130 Calcamium alagams, also known as "higher tea leaf" (da chang), was used for both suicide and murder. For

Gelsemium elegans, also known as "big tea leaf" (da chaye), was used for both suicide and murder—for examples of its use by women, see XT, #3–3041, Qianlong 31.5.9; #6–2325, Qianlong 31.9.5; and #7–2754, Qianlong 31.11.16. This plant appears to have been widespread and well-known.

¹³¹ Reagan, *When Abortion Was a Crime*. Quinn Javers, who is completing a dissertation at Stanford on unnatural death in late Qing Ba county, has found that opium was the most common means of suicide.

or families may have concealed them. For example, in an 1824 case from Lu county, Zhili, a woman pregnant by adultery died after swallowing white lead (*guanfen*)—her death was interpreted as a suicide, but the substance that killed her, though used for a variety of purposes, was also traditionally believed to have abortifacient properties. There is no way to know for sure what this woman intended, but she may actually have been trying to induce an abortion. ¹³² In fact, one might extend this speculation to China today, where the suicide rate among young rural women remains shockingly high, with drinking pesticide being one of the most common causes of death. Might some of these deaths, too, be the result of crude attempts at abortion? ¹³³

Inconvenient Pregnancies Carried to Term

For every legal case I have seen that records an actual abortion attempt, there is a far larger number that record inconvenient pregnancies carried to term, with ruinous consequences for the women whose adultery was thereby exposed. The women in these cases include much the same cast of characters found in abortion cases: widows, brides, adopted daughters-in-law (who had not yet consummated their marriages), and wives whose husbands were away from home, as well as the occasional Buddhist nun.

Consider the following three examples from memorials submitted to the throne in 1736: in Changzhou county, Jiangsu, the widow Qiu Shi's pregnancy exposed her sexual relationship with her brother-in-law, leading to them both being prosecuted and sentenced to death for incest; in Linqing department, Shandong, a young bride named Luo Shi gave birth to a healthy daughter just four months after consummating her marriage, provoking her husband to murder both her and the infant; and in Nanjing county, Fujian, a young woman named Zhuang Shi became pregnant while her fiancé was away in Taiwan, exposing her illicit affair and causing her such despair that she ended up committing suicide rather than face the consequences. ¹³⁴ I could cite many more examples. Such cases can serve as a sort of control set, to compare with those that document actual abortion attempts: like Tang Yang Shi (who was refused help by a doctor and ended up carrying her pregnancy to term), these women surely would have terminated their pregnancies if they had had means to do so. Another thing is

¹³² XT, #2852–1, Daoguang 4.5.9. The classic pharmacopoeia list *guanfen* (also known as *qianfen* or *fenxi*) as an abortifacient—e.g. BCGM, 1/266, 336–38.

¹³³ See discussion of unsafe abortion in modern China below. China is the only country on earth today where the suicide rate is higher among women than men; the rural rate is three times the urban rate, with suicides being concentrated in ages 15–34 (Xie Chuanjiao, "China's Suicide Rate among World's Highest"; Fan, "In Rural China, a Bitter Way Out").

¹³⁴ XT, #7–3, Qianlong 1.4.18; XT, #11–3, Qianlong 1.6.2; XT, #20–15, Qianlong 1.9.19.

clear: if they had had effective means of contraception, they would not have found themselves in this predicament in the first place.

Consider the 1845 case of the widow Hu Shi from Baodi county, Zhili. Hu Shi gave birth three years after her husband's death, prompting her in-laws to attempt to expel her from her dead husband's household; she resisted, denying that she had engaged in adultery and claiming to be mystified about how she had become pregnant. The dispute developed into a messy court case. No one believed the widow's story, but she stuck to it, and in the end a mediated settlement gave her most of what she wanted. (It helped that no one could identify her partner in adultery). Tellingly, the infant (a girl) died immediately after being born: at first, Hu Shi admitted in court that she had killed the newborn, which is what her in-laws also testified; later she changed her testimony and claimed the infant had simply died. The magistrate did not pursue the question of how the infant had died, perhaps because no one wanted her anyway. 135

An abortion would have saved Hu Shi an enormous amount of trouble. Indeed, like Elizabeth Johnson's and Hua Han's informants and Cheng Maoxian's wife, she may have *tried* to abort, but failed. That is what happened in a 1788 case from Cangwu county, Guangxi, in which a woman took an unidentified oral abortifacient (for which her lover had paid 4,100 cash!) without effect. She ended up giving birth, and then strangling and burying the newborn in a vain attempt to cover up what had happened.¹³⁶

References to infanticide are far more common in legal cases involving unwanted pregnancy than are references to abortion (in a ratio of at least four to one), suggesting that infanticide, when possible, may well have been the preferred solution to such problems. We get a hint of the calculations involved in a 1737 case from Badong county, Hubei, in which a woman named Tan Shi became pregnant by adultery during an extended stay at her natal home to care for her ill mother. Her lover paid her father to tolerate their relationship. The possibility that she might resort to abortion or infanticide crossed her lover's mind, and he warned her father that he wanted the child. "If your daughter uses a drug to abort it (*yong yao da xia*) or if you drown it after it is born, because you are afraid that her husband will find out, then I will go tell him the truth that you pimped your daughter and she got pregnant by me. Then everyone will get in trouble, including you." This case came to official attention when Tan Shi's lover murdered her husband, hoping to make her his own wife; at that point she was seven months pregnant.

¹³⁵ Baodi County Archive, bundle 162, Daoguang 25.3.8; see Sommer, *Sex, Law, and Society*, 205–07 for a detailed account of this case.

¹³⁶ XT, #1763–12, Qianlong 53.2.24.

Her lover's statement suggests that abortion and infanticide were the two possible ways to deal with an inconvenient pregnancy. In fact, Tan Shi did intend to return to her husband (for her, the illicit affair was a fling, not a long-term relationship), and she was not complicit in his murder. When interrogated in court, she explained that she had planned to delay returning to her husband until the following spring, because "after giving birth, it would have been easy to get rid of the evidence (*bunan mieji*)," and her husband would never be the wiser. This statement implies that she was contemplating infanticide, after having ruled out abortion.¹³⁷

But infanticide required a woman first to give birth. Childbirth itself carried risk (given the high rate of maternal mortality); but also, childbirth was hard to conceal—and for a woman trying to keep a secret, this could be a major problem. For example, in a case from 1736, the widow Qin Shi from Anhui, who became pregnant with her hired laborer, waited until she gave birth and then immediately strangled the infant. But her alert neighbors heard the newborn's cries, and her adultery was exposed. She committed suicide rather than face prosecution and expulsion by her in-laws. Something similar transpired in another 1736 case, from Hua county, Henan: the widow Liu Shi (who had affairs with two neighbor men) did away with her infant as soon as it was born, but her snooping in-laws found the corpse—and when the widow tried to run away, they hunted her down and killed her.

Given the terrible risks they were running, why did Qin Shi and Liu Shi carry their pregnancies to term? The most plausible answer is that they simply had no choice.

Unsafe Abortion in Modern China

Traditional Abortion Methods in Hebei, 1928

Unsafe abortion did not disappear with the Qing Dynasty. On the contrary, it has continued to occur throughout the twentieth century, even in the post-Mao reform era

Unique insight into traditional abortion techniques practiced in North China comes from J. Preston Maxwell, a British medical missionary who served as Professor of Obstetrics and Gynecology at Peking Union Medical College. In 1928, Maxwell described in gruesome detail his clinical experience treating

¹³⁷ XT, #29-09, Qianlong 1.12.19.

¹³⁸ XT, #32–12, Qianlong 1.?

¹³⁹ XT, #4–06, Qianlong 1.3.14.

the adverse effects of such techniques, in his paper "On Criminal Abortion in China." 140

Maxwell describes four basic methods of abortion. The first is "violent manipulation of the uterus from the outside," which he states was not very common or effective: "the procedure seldom succeeds in doing more than making the lower abdomen very tender for a time." Massage abortion is still practiced in some parts of the world where abortion is banned; but the success rate is low and the risk of complications high. 142 I have seen no evidence that massage abortion was widespread in China.

The second and third methods cited by Maxwell are "insertion of foreign bodies into the cervix," and "ecbolic acupuncture," that is, insertion of needles through the skin and abdominal wall into the uterus. Both methods were used occasionally, according to Maxwell. But, like the proverbial coat hanger abortion, they entailed grave risk of life-threatening complications; in the absence of sterilization and antibiotics, such invasive procedures would be perilous even if performed "correctly." ¹⁴³

Maxwell reports one case of a woman who had successfully induced abortion by inserting a chopstick into her cervix, after which she nearly died of septicemia; a second woman who attempted this kind of abortion failed, but she did die of tetanus. He also recounts three cases of needling gone wrong. In two cases the needle had broken off or was otherwise lost inside the abdomen, requiring emergency surgical extraction; neither woman succeeded in aborting her pregnancy. The second of these women (a 38-year-old peasant who had become pregnant by adultery while her husband was away) had first attempted herbal abortion in vain before engaging a "Chinese native doctor" to use the needle. (The resort to ever more invasive and risky methods after less dangerous ones fail is a well-documented pattern of unsafe abortion around the world. ¹⁴⁴) In the third case, a 43-year-old widow (who had had eight previous pregnancies, and was now pregnant again, this time by adultery) did succeed in aborting, after being needled a total of four times; but then she died of peritonitis. ¹⁴⁵

¹⁴⁰ Cf. citation of Maxwell by Rigdon ("Abortion Law and Practice in China," 548, 559–60) and Hershatter (*Dangerous Pleasures*, 462–63).

Maxwell, "On Criminal Abortion in China," 13.

¹⁴² "The vigorous pummeling of the woman's lower abdomen is designed to disrupt the pregnancy but sometimes bursts the uterus and kills the woman instead" (Grimes et al., "Unsafe Abortion: The Preventable Pandemic," 4). See Shepherd, *Marriage and Mandatory Abortion among the 17th-Century Siraya*, for massage abortion as apparently practiced by an aboriginal people of Taiwan.

cf. Grimes et al., "Unsafe Abortion," 4–5.

¹⁴⁴ Santow, Review of Eve's Herbs.

¹⁴⁵ Maxwell, "On Criminal Abortion in China," 14–17; Maxwell provides an x-ray of "an ordinary carpet needle" made of steel (7.25 cm. long) lodged inside a woman's abdomen, and a photograph of the same needle after surgical removal.

The fourth method Maxwell cites is "ecbolic medicine," that is, abortifacient drugs, which all the evidence suggests were the principal means employed. Maxwell's informant, a practitioner of traditional medicine, provided him with three prescriptions for abortifacient compounds, and assured him that they were effective within the first three months after conception. The first prescription consists mainly of toxic insects: it includes fourteen carcasses of mylabris, two of huechys, 5.6 grams of leeches (*shuizhi*), and 1.9 of gadfly (*mengchong*), among other things, to be powdered, mixed in wine, and taken orally. This prescription would likely be dangerous, since Chinese medical journals report fatalities in women who swallowed just three mylabris carcasses. The second prescription combines musk with a decoction of several herbs, to be taken orally in wine. The third prescription is for a vaginal suppository made of musk and other ingredients ground into a paste and put in a silk bag. 148

Maxwell notes that "quite a number of cases have come into our hands suffering from the after-effects of these drugs, which are used all over North China." (N.B.: This comment highlights geographical scope—but Maxwell does *not* say that the drugs were used safely or effectively, let alone that they were used for routine birth control to limit family size, or that the disastrous effects he describes were in any way exceptional.) He describes two cases of side effects caused by suppositories. In the first, the abortion succeeded, but caused permanent damage to the woman's reproductive organs: "Since that time, she has had severe dysmenorrhea at each period, the pain ceasing with the passage of yellowish discharge and blood. The vagina is blocked up by strong fibrous tissue ... and the uterus is buried in adhesions and bound up with stricture." In the second case, the abortion failed—and Maxwell believes that this woman

¹⁴⁶ Maxwell refers to huechys as "lady bugs" and to gadfly as "horse fly." For toxicity of gadfly and leeches see Xu Guojun and Chen Jinquan, eds., *Xianggang changyong youdu Zhongyao tujian* and Xia Liying et al., eds., *Xiandai Zhongyao dulixue*, 481–83, 507–08.

¹⁴⁷ E.g. Sun Zhongguo and Guo Yingli, "Banmao zhongdu siwang wei jian chu banmao su yi li fenxi" (Analysis of a fatality by mylabris poisoning, in which examination failed to detect cantharidin); in this case, the beetles were powdered, mixed with other ingredients in sesame oil, and swallowed. Xi'an Jiaotong University's forensic pathology website estimates a fatal dose to be 1.3–3.0 grams; another source gives 1.5 grams (Xu Guojun and Chen Jinquan, eds., *Xianggang changyong youdu Zhongyao tujian*, 188). One problem in using crude animal and herbal drugs is that the amount of active agent may vary depending on the season harvested, the age and sex of a specimen, the parts used, how it is prepared, etc. There can also be difficulty distinguishing superficially similar species, with dangerous results—there is a large literature on how to make positive identifications by microscopy, DNA analysis, and other means not available until recently: e.g. Xu Guojun and Chen Jinquan, eds., *Xianggang changyong youdu Zhongyao tujian*; Ko, "Causes, Epidemiology, and Clinical Evaluation of Suspected Herbal Poisoning"; Li Xia et al., "Authentication of 31 Species of Toxic and Potent Chinese Materia Medica."

¹⁴⁸ Maxwell, "On Criminal Abortion in China," 17–18.

¹⁴⁹ Maxwell, "On Criminal Abortion in China," 18.

was near death, although he does not know how she ultimately fared. He also cites two other cases in which women died of kidney failure, although he does not specify the methods used.¹⁵⁰

All of the women whose specific circumstances Maxwell reports had become pregnant by adultery. In this respect, his evidence bears a grim similarity to the Qing legal cases that document abortion attempts: the common theme is women putting their lives in jeopardy because they feared the social consequences of extramarital pregnancy.

It should be noted that Maxwell's use of the term "criminal abortion" simply reflects the fact that induced abortion was prohibited under Chinese law at the time he was writing. Maxwell's chief concern is "the terrible risk to the patient" posed by these methods, which he terms "a serious menace." Of course, like legal cases, Maxwell's evidence is anecdotal; and like a magistrate, a physician would likely learn about only those abortions that went dangerously wrong. Nevertheless, like the legal cases, his evidence argues against complacency about traditional abortion techniques; at very least, it suggests that the burden of proof lies with anyone who would claim such techniques were safe or reliable enough for routine use.

Traditional Abortion Techniques since 1949

Since 1949, the government of the PRC has energetically promoted traditional Chinese medicine for ideological and economic reasons; and since the 1970s, it has also imposed compulsory birth control to limit population growth. Therefore, if safe and reliable techniques of abortion had been widely used before 1949, one would expect them to remain in widespread use today. What, then, has been the modern fate of traditional techniques?

In recent decades, a number of herbal abortifacients have been tested under controlled clinical or laboratory conditions, sometimes in crude form but often as chemical extracts that can be injected. The greatest success, it seems, comes when certain traditional materials are used in conjunction with modern techniques. For example, in the 1970s an extract of snake-gourd root (*tianhua fen*) called tricosanthin was used (via injection) along with prostaglandins to induce early abortion, with a reported success rate of 81 percent. Later, however, tricosanthin was mostly replaced by mifepristone (RU-486), which gives far more satisfactory results. Mifepristone is the technique of choice for medical abortion in the PRC today, although it is occasionally supported by traditional

¹⁵⁰ Maxwell, "On Criminal Abortion in China," 18–19.

¹⁵¹ Maxwell, "On Criminal Abortion in China," 13.

therapies. ¹⁵² For example, some physicians report successful use of ox knee root to dilate the cervix in conjunction with either mifepristone or surgical abortion; ¹⁵³ another claims success using an abdominal plaster containing musk and herbs to improve the effectiveness and reduce the side effects of mifepristone. ¹⁵⁴

One can certainly find accounts of successful use of traditional prescriptions administered at modern TCM clinics. 155 But medical journals also contain many reports of unsatisfying results or adverse effects. For example, one physician reports his attempt to induce abortion using two different traditional herbal decoctions made with musk, ox knee, and other ingredients: these medicines had no effect, and the patient ended up requiring a surgical abortion. ¹⁵⁶ Another physician used three different well-known traditional preparations to attempt abortion in 41 separate cases, with a failure rate of 100 percent. In a telling comment, however, he notes that "the preparations used in the experiment were screened for safety, and such dangerous ingredients as mercury and cantharides were removed."157 ("Cantharides" are blister beetles, that is, mylabris or lytta.) It appears that by removing the obviously toxic substances, this physician had eliminated whatever abortifacient efficacy these preparations may have had. Similarly, two other physicians report their failure to induce abortion using just one carcass of mylabris, administered orally with warm water, as Bencao gangmu prescribes for expelling a dead fetus from the womb. They conclude that mylabris in safe dosage is utterly ineffective as an abortifacient, and that higher dosages would simply be too dangerous to attempt. 158 This evidence is anecdotal, but it suggests that practitioners who err on the side of safety have found traditional preparations of crude drugs less than satisfactory.

15

¹⁵² Cheng Linan, "Medical Abortion in Early Pregnancy: Experience in China"; cf. Rigdon, "Abortion Law and Practice in China," 548–549. For dangerous side effects of *tianhua fen* and tricosanthin, see Li Ling and Huang Guangzhao, "Jixing tianhua fen zhongdu shijian er li" (Autopsy report on two cases of acute *tianhua fen* poisoning).

e.g. Huang Guoping et al., "Liuchan yaowu de linchuang yingyong" (Clinical use of abortifacient drugs); Ji Xiaofen et al. "Niuxi zai rengong liuchanshu zhong de yingyong (Use of ox knee in surgical abortion).

Shang Jing, "Shexiang fengshigao tieji tigao yaowu liuchan chenggonglü de linchuang guancha" (Clinical observation of success rate in using a musk compound to induce abortion). In an 1875 case from Taicang Department, Jiangsu, a midwife used an abdominal plaster containing musk to induce abortion, resulting in the woman's death – XT, #3751–26, Tongzhi 13.12.18; XT, #3966–16, Guangxu 1.11.4.

¹⁵⁵ E.g. Qin Yuhui and Li Peigan, "Hongcaotang kangzaoren 38 li" (38 cases using "red herbal decoction" to terminate early pregnancy); Wang Fengmin and Dai Zhannan, "Cui jing zhi yun tang kang zao zaoyun 34 li" (34 cases using "menstruation-encouraging and pregnancy-terminating decoction" to terminate early pregnancy).

¹⁵⁶ Weng Yifeng, "Junji gongzhu pei shexiang duotai bu xia yi li" (A case of failed abortion using a musk compound).

¹⁵⁷ Li Fu-kuang, "Problems Concerning Artificial Abortion through Oral Administration of Traditional Drugs," 200.

Liao Anshui and Cheng Yuzhu, "Banmao zhongdu er li baogao" (Two cases of mylabris poisoning); cf. BCGM, 1:266.

In contrast, a case reported in 1986 concerns an 18-year-old high school student, five months pregnant, who begged her school doctor to help her. The doctor used a prescription containing one mylabris carcass, along with dried leeches, gadfly, and the herb *qumai*, the decoction of which was to be taken orally. When this prescription failed to induce abortion, the doctor had the student take it three more times, increasing the dose of mylabris in small increments, but still without effect. Finally, in frustration, the doctor administered a fifth dose using 30 whole mylabris carcasses—and that dose killed her. The pathologist who conducted the autopsy estimated that the amount of mylabris ingested had exceeded the fatal dose by more than five times.¹⁵⁹

The Persistence of Unsafe Traditional Abortifacients

These last three examples involving mylabris highlight the question of safety. Blister beetles are among the most dangerous substances traditionally used to attempt abortion. Nevertheless, as we have seen, many traditional abortifacient preparations include mylabris, its relative lytta, and/or the cicada huechys, sometimes in combination. We find mylabris in the abortifacient that Pan Jinlian used in *Jinpingmei*; it also appears (along with huechys) in one of the abortifacient recipes reported by Maxwell.

Even today, there persists a widespread belief that mylabris can be used to induce abortion, as well as to cure rabies and cancer. As a result, poisoning and even death by mylabris ingestion remain a real problem. According to two faculty at Guangzhou TCM University, mylabris poisoning usually results from the use of "folk remedies" (*minjian pianfang*) in rural regions that are "relatively backward economically and educationally" (*jingji wenhua jiao wei luohou*). ¹⁶⁰

But such notions are not limited to the rural poor—witness the following statement published in 2004 by a demographic historian at Renmin University:

I once heard a woman say that because on one occasion she had happened to hold a piece of musk, she was no longer able to become pregnant (but since she already had four or five children, she was perfectly happy with this result). Also, a friend once told me that inserting a drug known as "mylabris" into the cervix (twisted in a piece of paper) is an effective means of preventing conception. Ap-

¹⁵⁹ Editorial Committee, Linchuang yiliao huli shiwu fenxi (Analysis of errors in clinical care), 690–92.

Liang Jinquan and Wang Ningsheng, "Banmao de duxing fanying ji yuanyin fenxi" (Analysis of mylabris toxicity), 77.

parently in the old days prostitutes used this method, and after they quit prostitution they could still bear children without difficulty.¹⁶¹

If a professor at an elite university would credit such dangerous nonsense, we should not be surprised that some uneducated rural people might also believe it. Cantharidin (the active agent in blister beetles) is highly caustic, and can be used externally as a vesicant; ¹⁶² in TCM mylabris is used in the same way, the powdered insect being applied to the skin (for example, to remove warts). But careless handling of the insect or inhalation of the powder can cause severe chemical burns—and for a woman to insert mylabris into her cervix would be a disaster. Of course, it is possible that desperate women have used it in this way in an attempt to prevent or terminate pregnancy—after all, in the United States before *Roe vs. Wade*, it was common for women to attempt abortion by douching with bleach or lye, even though that technique often proved fatal. ¹⁶³

I have not found statistics on how often mylabris poisoning caused by attempted abortion occurs today, so my evidence is anecdotal. But there is no shortage of reports from the last few decades about such incidents, including many fatalities. For example, a single hospital in Shandong provided emergency care for 88 separate cases from 1989 to 1996; a different hospital, also in Shandong, treated 42 cases from 1997 to 2001. 164 Some poisonings result from attempts to treat dog bites or cancer, but many victims are women who hope to terminate pregnancy: according to a 2004 report from Zhangjiakou, Hebei, "mylabris poisoning occurs for various reasons, but by far the most common is that young unmarried women who become pregnant use it in a misguided attempt to induce abortion." In a cursory survey of medical journals online, I found reports of such incidents from Beijing, Gansu, Guangdong, Guizhou, Hebei, Hong Kong, Hubei, Jiangxi, Qinghai, Shaanxi, Shandong, Sichuan, Tianjin, and Yunnan. 166 In

Gao Wangling, "Ma'ersasi yinyingxia de renkou zhenglun" (The population debate in Malthus's shadow), 16.

¹⁶² Moed et al., "Cantharidin Revisited."

Reagan, When Abortion Was a Crime, 208-209.

Hu Ping and Hu Dechuan, "Banmao zhongdu 88 li baogao" (88 cases of mylabris poisoning); Jin Haiyan, "Banmao zhongdu 42 li" (42 cases of mylabris poisoning). A search in the Chinese Academic Journals Database (available through Stanford's East Asian Library) on January 26, 2009, found 93 articles from 1980–2002 with both "mylabris" (banmao) and "poisoning" (zhongdu) in their titles.

¹⁶⁵ Sun Zhongguo and Guo Yingli, "Banmao zhongdu siwang wei jian chu banmao su yi li fenxi," 28.

¹⁶⁶ For examples, see Chen Jianfei. "Zhongcaoyao zhongdu 50 li zonghe fenxi ji wenxian fuxi" (50 cases of poisoning with traditional herbal medicines: Analysis and literature review); Chen Jinhua, "Banmao zhongdu siwang de jianyan wu li baogao jian lun banmao duotai de weixian" (Five cases of death by mylabris intoxication: The Danger of mylabris when used as an abortifacient); Cheng Kok-Choi et al., "A Fatality Due to the Use of Cantharides from *Mylabris Phalerata* as an Abortifacient"; Hou Rumiao and Ma Jiaji, "Jixing banmao zhongdu yi li baogao" (A Case of acute mylabris poisoning); Hu Ping and

the reports I have seen, every woman who succeeded in aborting subsequently died, whereas those who survived failed to abort.¹⁶⁷

In a typical example, an article published in 1990 reports two separate cases of rural women in Hubei, both unmarried, who died of mylabris poisoning while attempting to induce abortion. The first woman, age 21, was seven months pregnant when she drank a mixture of powdered mylabris in wine, late one night while alone; by dawn she was dead. The other woman, age 22, was four months pregnant when she took six powdered mylabris beetles orally; she also applied plasters containing four more powdered beetles to her temples and lower abdomen. She died within twenty-four hours. ¹⁶⁸ A 1999 report from Guangdong describes an unmarried woman, age 21, who was three months pregnant when she drank about half an ounce of a decoction of mylabris carcasses. She too died within twenty-four hours, despite emergency treatment. ¹⁶⁹

Blister beetles are by no means the only culprits in such cases; one can also find reports of poisoning caused by musk and various herbal abortifacients. For example, a 1986 article reports a case from Guilin in which an unmarried woman aged 24, who was two months pregnant, used a bundle of white leadwort roots (*baihua dan*) tied in red string as a vaginal suppository. She had obtained this herb, known colloquially as "local ox knee" (*tu niuxi*), from an unlicensed TCM practitioner. Two days after inserting the suppository, she successfully

Hu Dechuan, "Banmao zhongdu 88 li baogao"; Jin Haiyan. "Banmao zhongdu 42 li"; Jin Su, "Wu zhong changyong youdu chonglei Zhongyao de duxing ji jiejiu fangfa" (Five poisonous insects commonly used in traditional Chinese medicine); Liang Bingxue, "Banmao zhongdu er li baogao" (Two cases of mylabris poisoning); Liang Lei and Hu Yuchuan, "Banmao zhongdu yi li baogao" (A case of mylabris poisoning); Liao Anshui and Cheng Yuzhu, "Banmao zhongdu er li baogao" (Two cases of mylabris poisoning); Ouyang Ju and Jiang Youzhong, "Zhongyao zhongdu yuanyin fenxi ji yufang cuoshi" (TCM poisoning: Causes and prevention); Pan Qiying, "Jixing banmao zhongdu yi li baogao" (A case of acute mylabris poisoning); Tong Yaohua, "Banmao zhongdu de qiangjiu yu huli" (Emergency treatment of mylabris poisoning); Weng Xinzhi and Gao Chongji, "Banmao zhongdu – wenxian fuxi ji yi li baogao" (A case of mylabris poisoning); Xie Liansheng, "Qiantan jixing banmao zhongdu de zhengzhi" (Diagnosis and treatment of acute mylabris poisoning); Xu Chucai, "Jixing banmao zhongdu san li baogao" (Three cases of acute mylabris poisoning); Xun Xianwen, "Banmao zhongdu siwang er li" (Two cases of death by mylabris poisoning); Zhang Jizong et al., "Yong GC/MS jianding shiti zangqi zhong de banmaosu" (Autopsy use of GC/MS to identify cantharidin in organs, with analysis of one case); Zhang Junwen and Zhang Yuwu, "Zhongyao zhongdu 20 li baodao" (20 cases of poisoning with traditional Chinese medicines); Zhang Yigu and Huang Guangzhao, "Youdu dongwu zhongdu 4 li shijian baogao" (Autopsy report on four cases of poisoning with toxic animal products); Zou Weibo, "Koufu banmao duotai zhongdu zhi siwang de fayixue jianding" (Forensic diagnosis of fatal poisoning caused by oral ingestion of mylabris as an abortifacient). Also see Jiang Qingyu and Qi Yongmao, eds., Zhongyao buliang fanying (Adverse reactions to traditional Chinese medicine), 293–95.

¹⁶⁷ There are also reports of mylabris poisoning resulting from attempts to treat amenorrhea or infertility, e.g. Jin Yacheng, "Banmao neifu zhi si yi li baogao" (A case of death caused by ingestion of mylabris), and Sun Zhongguo and Guo Yingli, "Banmao zhongdu siwang wei jian chu banmao su yi li fenxi."

¹⁶⁸ Xun Xianwen, "Banmao zhongdu siwang er li."

Zou Weibo, "Koufu banmao duotai zhongdu zhi siwang de fayixue jianding."

aborted (in a public toilet), and then collapsed and was sent to hospital. Medical treatment failed, and several days later she died of kidney failure. 170

Such accounts are shockingly similar to the scenarios found in both Qing legal cases and Maxwell's 1928 report. Most portray women who resorted to desperate measures because they feared having their extramarital sexual relations exposed.

The website of the Xi'an Municipal Government's Committee for Population and Family Planning contains the following statement, entitled "Never take drugs to induce abortion on your own!" (*qie ji zifu datai yao*):¹⁷¹

Some women who become pregnant wish to abort for various reasons, but they are too embarrassed to go to a hospital for a clinical abortion, so they decide to take drugs to induce abortion on their own. Such action is extremely dangerous! It can easily lead to massive hemorrhage, partial abortion, or a variety of gynecological illnesses. This is a very common problem. Because the toxicity of abortifacient drugs is high, and the required dosages are also high, these drugs can easily cause poisoning.

For example, in the countryside there are women who use the medicinal beetle mylabris to induce abortion. The average adult who takes just 0.6 gram of mylabris orally can have a severe toxic reaction; 1.3-3.0 grams can cause immediate death.... There are also women who insert ox knee, monkshood daughter (*fuzi*), musk, yellow oleander leaf (*jiazhutao ye*), or other herbs into the vagina hoping to induce abortion, but this method often causes severe vaginal hemorrhage and can endanger a woman's life.

There are other traditional Chinese medicines that can harm a pregnant woman if used to induce abortion. These include nux vomica (*maqianzi*), Jack-in-the-pulpit tuber (*sheng nanxing*), common monkshood mother root (*sheng chuanwu*), Kusnezoff monkshood

Thang Cun, "Baihua dan duotai zhi baixiezheng jixing shen gongneng shuaijie siwang yi li baogao" (A Case of death by septicemia and kidney failure from use of *baihua dan* as an abortifacient). For toxicity of *baihua dan*, see Xia Liying et al., eds., *Xiandai Zhongyao dulixue*, 253–55. For poisoning by musk (taken orally) see Hu Lifa, "Shexiang zhongdu zhi jixing shen gongneng shuaijie er li"; for herbs such as *yuanhua* and *tianhua fen* (used as vaginal suppositories), see Li Ling and Huang Guangzhao, "Jixing tianhua fen zhongdu shijian er li"; Ma Jianxin, "Changjian Zhongyao buliang fanying gai kuang"; Zhang Yigu and Huang Guangzhao, "Jiu zhong youdu zhiwu zhongdu de shijian baogao" (Autopsy report on cases of poisoning with nine species of toxic plants).

¹⁷¹ Xi'an Municipal Government Population and Family Planning Committee, "Qie ji zifu datai yao" (Never take drugs to induce abortion on your own), http://www.xianfp.gov.cn/Index/Catalog119/3105.aspx. The same statement appears on the websites of several other local governments.

root (*sheng caowu*), liquid mercury, croton seed (*badou*), centipede (*wugong*), dried leeches (*shuizhi*), common burreed tuber (*sanling*), and motherwort herb (*vimu cao*). 172

Here we have a straightforward account of unsafe traditional abortion in China today, including a list of many of the most dangerous substances long used for this purpose.

It would be wrong, of course, to suggest that nothing has changed in China. There has been dramatic progress in maternal health over the past couple of decades in particular: according to government statistics, China's maternal mortality rate dropped from 94.7 mother deaths per 100,000 live births in 1990 to 48.3 in 2004. ¹⁷³ Today, safe contraception and abortion are widely available in China—and as a result, the rate of unsafe abortion is considered negligible, especially compared to countries where abortion is banned or otherwise inaccessible. Nevertheless, death by unsafe abortion is notoriously underreported and its incidence is difficult to estimate, especially in developing countries. ¹⁷⁴ Moreover, given the extraordinarily high rate of suicide among young women in rural China today, it seems possible that these "suicides" include at least some deaths by unsafe abortion that have been unrecognized or deliberately misreported.

As the Xi'an government website points out, most mylabris abortion poisonings seem to involve young rural women who are "too embarrassed" to seek a clinical abortion. Surveys suggest that rural migrants to cities are increasingly uninhibited about premarital sex, and are willing to seek safe contraception and abortion; but in home villages, attitudes may remain harsh. A group of rural women interviewed in Guiyang in 2001 explained that premarital pregnancy is taboo: "Nobody dares get pregnant before marriage! The old people would kick you out of the house if they found out! It is not an issue in the cities, but it matters in a village. The whole family would lose face!" One thing has

Many of these items are listed by the PRC and Hong Kong as toxic medicines subject to restriction. Monkshood daughter and Kusnezoff monkshood contain aconite; nux vomica contains strychnine.

¹⁷³ WHO Representative Office in China, "Maternal and Child Health in China," http://www.wpro.who.int/china/sites/mch/overview.htm.

World Health Organization, *Unsafe Abortion*; Grimes et al., "Unsafe Abortion." I have been unable to find systematic reports on the incidence of death by unsafe abortion in China; most reports on maternal mortality either exclude this cause from consideration or (apparently) include it in the category "other." But in a striking exception, a report from Pingguo county, Guangxi, states that out of 31 women's deaths related to pregnancy or childbirth in 1989–91, five deaths resulted from hemorrhage or infection in rural women who had "used herbal drugs to induce abortion on their own" (*yong caoyao zi xing duotai*). Huang Runhong, "Pingguo Xian 31 li yunchanfu siwang qingkuang fenxi" (Analysis of 31 women's deaths in pregnancy or childbirth in Pingguo county).

¹⁷⁵ Zhenzhen Zheng et al., "Sexual Behaviour and Contraceptive Use among Unmarried, Young Women Migrant Workers in Five Cities in China," 123.

not changed, evidently: at least some women still fear the exposure of their extramarital sexual activity to such an extent that they cannot risk the publicity that seeking a safe clinical abortion might entail. Instead they resort to unsafe traditional methods, with the results we have seen.

The cases of poisoning by traditional abortifacients that occasionally surface in medical reports today are significant for our inquiry mainly because they shed light on how abortion was attempted in times past. These reports provide a glimpse in the present day of the practices that our older sources document. If unsafe abortion by traditional means is unusual in China today, that is fortunate indeed—but we must bear in mind that until very recently, such means were the only ones available.

Conclusion

WHO estimates that some 500,000 women die each year from pregnancy-related causes worldwide, and between one-fourth and one-third of these stem from unsafe abortion. Of abortion-related deaths, 98 percent occur in Third World countries. Thousands of other women suffer serious ill health from the complications of unsafe abortion.... There should be no complacency, therefore, regarding the safety and reliability of folk remedies.¹⁷⁶

Reports from the field add flesh to these figures. For example, in Uruguay (where abortion is illegal), during the years 1986–99, one poison center provided emergency care to 86 women made severely ill by herbal abortifacients. ¹⁷⁷ 30 different plant species were identified among the abortifacients; 11 women had also attempted self-injury in addition to taking herbs. Only 23 of these women succeeded in inducing abortion; but 14 suffered multiple organ failure, nine required hysterectomy, and five died. Many other women suffered serious and lasting damage to their health. "Most of the abortions [that did succeed] occurred in patients with multiple organ system failure, and liver or blood diseases. These results strongly suggest that most of the abortions happen in the context of herbal intoxication." In other words, abortion occurs as a result of poisoning. The report concludes that "ingestion of plants to induce abortion involves the risk of severe intoxication that could result in death or future reproductive complications." ¹⁷⁸

¹⁷⁶ Seidlecky, "Pharmacological Properties of Emmenagogues," 96.

¹⁷⁷ Ciganda and Laborde, "Herbal Infusions Used for Induced Abortion."

¹⁷⁸ Ciganda and Laborde, "Herbal Infusions Used for Induced Abortion," 237–238.

Some historians have claimed that abortion was used for routine birth control in late imperial China; despite their differences, these scholars apparently assume that traditional methods of abortion were safe, effective, and readily available to women who wished to use them. If correct, these claims would have the most profound implications for our understanding of Chinese history. The Chinese might be the only people on earth to have enjoyed such effective fertility control before the advent of modern medicine.

In fact, I believe, China was not so exceptional. The practice of abortion in China before 1949 actually looks quite familiar: it looks like unsafe abortion as practiced in the United States before *Roe vs. Wade*; it looks like unsafe abortion as practiced in Uruguay and many other countries today, often by means of herbal concoctions as well as invasive measures or self-injury.¹⁷⁹ The folk methods that survive in China fit this picture very well, in that they are dangerous and unreliable.

Safe and reliable contraception and abortion are among the great benefits of modernity, but like other such benefits they are not universally shared. Where they are not available, whether because of prohibition, stigma, poverty, or other factors, desperate women continue to resort to unsafe traditional methods—and this remains true even in China, despite that country's overall progress in protecting maternal health.¹⁸⁰

Glossary

antai	安胎	Bencao gangmu	本草綱目
badou	巴豆	biqi	荸薺
baihua dan	白花丹	buduan gaijin	不斷改進
banmao	斑蝥 (斑蟊、斑毛、 斑貓)	bu gan	不敢
		bunan mieji	不難滅跡
banmao su	斑蝥素	bu ying zhong	不應重

¹⁷⁹ Grimes et al., "Unsafe Abortion."

¹⁸⁰ Estimates of worldwide mortality due to unsafe abortion vary widely: anywhere from approximately 70,000 deaths per year to more than twice that number (e.g. Grimes et al., "Unsafe Abortion"; World Health Organization, *Unsafe Abortion*; Population Council, "Safe Abortion," http://www.popcouncil.org/topics/mnh_safeabor.asp#). For perspective, in the 1920s unsafe abortion killed an estimated 15,000 women every year in the United States alone (Reagan, *When Abortion Was a Crime*, 139).

bu zhi yu yunjue zhe

xian yi 不致于殞絕者鮮矣

產門 chanmen

Cheng Maoxian 程茂先

conggian bing mei you ti ren daguo tai de

從前並沒有替人打過胎的

大茶葉 da chave

打胎 datai

dousha 鬪殺

duanchang ducao 斷腸毒草

墮胎當謹 Duotai dang jin

放入產門 fang ru chanmen

Fei Xiaotong 費孝通

粉锡 fenxi

furen shen bian pei dai shexiang jiu ke duotai

甘遂

婦人身邊配帶麝香就可墮胎

附子 fuzi

gan nüer 乾女兒

gansui

guanfen 官粉

歸有光 Gui Youguang

河馬子 hemazi

honghua 紅花

hongniang chong 紅娘蟲

紅娘子 hongniangzi

花籃/藍瑤 Hualan Yao

jiao wo mai datai yao

叫我買打胎藥

jiazhutao ve

夾竹桃葉

jieyu yaowu

節育藥物

金瓶梅詞話

jingji wenhua jiao wei

luohou

濟文化較爲落後

Jinpingmei cihua

kong

Kong Qi

kulie

酷烈 李伯重

李時珍

螺

螺螄

馬錢子

孔齊

恐

Li Bozhong

Li Shizhen

luo

luosi

maqianzi

mengchong 虻蟲

minjian hen

pubian

minjian pianfang

民間偏方

民間很普遍

niuxi

牛膝

niuxi cao

牛膝草

nong yao datai

弄藥打胎

pengsha

硼砂

pingri ye bu shi guan dai renjia datai de

平日也不是慣代人家打胎的

poxue

破血

瞿麥

qumai

shanzha

shifen rongyi huode

桃仁

通經

破血藥 poxue yao taoren

妻 qi ti ni mai fu datai de yao lai da xia lai ba

替你買服打胎的藥來打下來吧 qianfen 鉛粉

tongjing

天花粉 tianhua fen qie ji zifu datai yao

切忌自服打胎藥 調經 tiaojing

qingniangzi 青娘子 tongcao 通草

肉桂 tongjing yao 通經藥 rougui

tu niuxi sai ru yinhu huoke duo de tai xia 土牛膝 塞入陰戶或可墮得胎下

wei guangda minzhong suo jieshou 三棱 為廣大民衆所接受 sanling

山楂 穩婆

wenpo

sheng caowu 生草烏 wu chu goumai 無處購買

生川烏 sheng chuanwu Wu Tan 吳壇

sheng nanxing 牛南星 wugong 蜈蚣

Shengyu zhidu 生育制度 Xianbi shilüe 先妣事略

shexiang 麝香 血崩 xiebeng

shi fan fa de shi 是犯法的事 刑案匯覽 Xing'an huilan

是下胎的 刑科題本 shi xia tai de xingke tiben

shi wu yi sheng 十無一生 Xi yuan lu 洗冤錄

shifen pubian 十分普遍 xun bu chu datai yao lai

尋不出打胎藥來

十分容易獲得 yang qian liang yuan

受雇債為人傷殘

洋錢兩圓 shuiyin 水銀

yaodian 藥店 水蛭 shuizhi

yi du gong du 以毒攻毒

shou gu zhai wei ren shang can zhe

yi duyao sha ren zhi qing mai yao zhe		yu niao dan	魚鳥蛋
	以毒藥殺人知情賣藥者	yuanhua	芫花
yimu cao	益母草	yuanqing	芫青
yin jian er weibi re	n zhi si 因姦而威逼人致死	zhangnao	樟腦
yin jian you yun	因姦有孕	zhawei	詐偽
yong caoyao zi xii		zhongdu	中毒
, , ,	用草藥自行墮胎	zhu gao	豬膏
yong yao da tai	用藥打胎	zhushu	朱術
yong yao da xia	用藥打下	zimo	子麼

WORKS CITED

Abbreviations

- BCGM Li Shizhen. *Bencao gangmu xin jiaozhuben* (New annotated edition of *Compendium of materia medica*), ed. and annotated by Liu Hengru and Liu Shanyong. Beijing: Huaxia Chubanshe, 1998.
- BX Ba County Archive. Chengdu: Sichuan Provincial Archive. Each case cited by serial number and Chinese date.
- DC Xue Yunsheng. *Duli cunyi chongkanben* (A new edition of *Lingering Doubts upon Reading the Substatutes*), ed. and punctuated by Huang Jingjia. Taipei: Chinese Materials and Research Aids Service Center, 1970. Each law cited by serial number.
- XT *Neige xingke tiben* (Grand Secretariat routine memorials on criminal matters) ("marriage and sex offenses"). Beijing: First Historical Archive. Each memorial cited by serial number and Chinese date.

Other References

Baodi County (Shuntian Prefecture) Archive ("marriage, sex offenses, and family disputes"). Beijing: First Historical Archive. Each case cited by number of bundle in which it was stored in 1992 and date of earliest document.

- Bray, Francesca. "A Deathly Disorder: Understanding Women's Health in Late Imperial China." In *Knowledge and the Scholarly Medical Traditions*, edited by Donald Bates, 235-250. Cambridge: Cambridge University Press, 1995.
- ——. *Technology and Gender: Fabrics of Power in Late Imperial China*. Berkeley: University of California Press, 1997.
- Brenner, Robert, and Christopher Isett. "England's Divergence from China's Yangzi Delta: Property Relations, Microeconomics, and Patterns of Development." *Journal of Asian Studies* 61, 2 (2002): 609–62.
- Brodie, Janet. "Menstrual Interventions in the Nineteenth-Century United States." In *Regulating Menstruation*, edited by Etienne van de Walle and Elisha P. Renne, 39–63. Chicago: University of Chicago Press, 2001.
- Browner, Carole [C. H.]. "The Management of Early Pregnancy: Colombian Folk Concepts of Fertility Control." *Social Science and Medicine: Medical Anthropology* 14B, 1 (1980): 25–32.
- ——. "Traditional Techniques for Diagnosis, Treatment, and Control of Pregnancy in Cali, Colombia." In *Women's Medicine: A Cross Cultural Study of Indigenous Fertility Regulation*, ed. Lucile F. Newman and James M. Nyce, 99–123. New Brunswick, New Jersey: Rutgers University Press, 1985.
- Cao Jinqing et al. *Dangdai Zhebei xiangcun de shehui wenhua bianqian* (Modern social and cultural change in rural northern Zhejiang). Shanghai: Shanghai Yuandong chubanshe, 2001.
- Cao Shuji and Chen Yixin. "Ma'ersasi lilun he Qingdai yilai de Zhongguo renkou" (Malthusian theory and the Chinese population since the Qing dynasty). *Lishi yanjiu* (Historical Research) 1 (2002): 41–54.
- Chen Jiamo. *Bencao mengquan* (Materia medica). Beijing: Renmin weisheng chubanshe, 1988.
- Chen Jianfei. "Zhongcaoyao zhongdu 50 li zonghe fenxi ji wenxian fuxi" (50 cases of poisoning with traditional herbal medicines: Analysis and literature review). *Jiangxi Zhongyiyao* (Jiangxi Journal of Traditional Chinese Medicine) 2 (1981): 45–48.
- Chen Jinhua. "Banmao zhongdu siwang de jianyan wu li baogao jian lun banmao duotai de weixian" (Five cases of death by mylabris intoxication: The Danger of mylabris when used as an abortifacient). *Yunnan yiyao* (Yunnan Medical Journal) 1 (1981): 15–16.

Cheng Kok-Choi et al. "A Fatality Due to the Use of Cantharides from *Mylabris Phalerata* as an Abortifacient." *Medicine, Science, and the Law* 30, 4 (1990): 336–40.

- Cheng Linan. "Medical Abortion in Early Pregnancy: Experience in China." *Contraception* 74 (2006): 61–65.
- Cheng Maoxian. *Cheng Maoxian yi an* (Cheng Maoxian's medical cases). Shanghai: Shanghai guji-shudian, 1982.
- Ciganda, Carmen, and Amalia Laborde. "Herbal Infusions Used for Induced Abortion." *Journal of Toxicology: Clinical Toxicology* 41, 3 (2003): 235–239.
- Cullen, Christopher. "Patients and Healers in Late Imperial China: Evidence from the *Jinpingmei.*" *History of Science* 31 (1993): 99–150.
- Du Wenxie. Yao jian (Mirror of medicine). Hong Kong: Shangwu yinshuguan, 1976.
- Ebrey, Patricia. *The Inner Quarters: Marriage and the Lives of Chinese Women in the Sung Period*. Berkeley: University of California Press, 1993.
- Editorial Committee. *Linchuang yiliao huli shiwu fenxi* (Analysis of errors in clinical care). Yanji: Yanbian renmin chubanshe, 1986.
- Ernst, E. "Herbal Medicinal Products during Pregnancy: Are They Safe?" *British Journal of Obstetrics and Gynecology* 109 (2002): 227–35.
- Fan, Maureen. "In Rural China, a Bitter Way Out." Washington Post, May 15, 2007.
- Fei, Hsiao-t'ung [Fei Xiaotong]. *Liu shang Yaoshan* (Six visits to Yaoshan). Beijing: Zhongyang minzu daxue chubanshe, 2006.
- ——. Peasant Life in China: A Field Study of Country Life in the Yangtze Valley. New York: E. P. Dutton, 1939.
- ——. *Xiangtu Zhongguo Shengyu zhidu* (Peasant life in China; The System of childbirth). Beijing: Beijing daxue chubanshe, 1998.
- Flemming, Rebecca. Review of *Eve's Herbs*, by John M. Riddle. *Isis* 90, 1 (1999): 102–03.
- Furth, Charlotte. "Blood, Body, and Gender: Medical Images of the Female Condition in China, 1600–1850." *Chinese Science* 7 (1986): 43–66.
- ——. *A Flourishing Yin: Gender in China's Medical History*. Berkeley: University of California Press, 1999.

- Gao Wangling. "Ma'ersasi yinyingxia de renkou zhenglun" (The population debate in Malthus's shadow). *Qing shi yanjiu* (Qing Historical Studies) 1 (February 2004): 15–20, 57.
- Gates, Hill. "Footbinding and Handspinning in Sichuan." In *Constructing China: The Interaction of Culture and Economics*, ed. Kenneth G. Lieberthal et al.,
 177–94. Ann Arbor: Center for Chinese Studies, University of Michigan, 1997.
- Ge Yuanxu. *Xiyuanlu zhiyi* (Choice omissions in *Washing Away of Wrongs*). Hubei guan shu chu, 1890.
- Government of Hong Kong. "Bilingual Laws Information System." http://www.legislation.gov.hk/eng/index.htm (accessed February 2, 2009).
- Grimes, David A., et al. "Unsafe Abortion: The Preventable Pandemic." *The Lancet* 368 (Nov. 2006): 1908–19.
- Gui Youguang. "Xianbi shilue" (A record of my late mother's life). In *Gui Zhen-chuan shi wen xuan* (Selected writings of Gui Zhenchuan), 218–21. Nanjing: Jiangsu guji chubanshe, 2002.
- Han, Hua. "Under the Shadow of the Collective Good: An Ethnographic Analysis of Fertility Control in Xiaoshan, Zhejiang Province, China." *Modern China* 33, 3 (2007): 320–48.
- Helgstrand, Stine, and Anne-Marie Nybo Andersen. "Maternal Underweight and the Risk of Spontaneous Abortion." *Acta Obstetricia et Gynecologica Scandinavica* 84, 12 (2005): 1197–1201.
- Hershatter, Gail. *Dangerous Pleasures: Prostitution and Modernity in Twentieth-Century Shanghai*. Berkeley: University of California Press, 1997.
- Heuveline, Patrick. Review of *One Quarter of Humanity: Malthusian Mythology and Chinese Realities, 1700–2000*, by James Lee and Wang Feng. *American Journal of Sociology* 106, 2 (2000): 516–18.
- Hong Kong Baptist University Library. "Chinese Medicine Specimen Database." http://www.hkbu.edu.hk/lib/electronic/libdbs/scm_specimen.html (accessed September 1, 2009).
- Hou Rumiao and Ma Jiaji. "Jixing banmao zhongdu yi li baogao" (A case of acute mylabris poisoning). *Tianjin yiyao* (Tianjin Medical Journal) 6, 9 (1964): 739.
- Hu Lifa. "Shexiang zhongdu zhi jixing shen gongneng shuaijie er li" (Two cases of acute kidney failure caused by musk intoxication). *Zhongguo shenzangbing zazhi* (Chinese Journal of Nephrology) 2 (1994): 32–33.

Hu Ping and Hu Dechuan. "Banmao zhongdu 88 li baogao" (88 cases of mylabris poisoning). *Shiyong xiangcun yisheng zazhi* (Journal for the Practical Rural Physician) 4, 7 (1997): 41.

- Huang Guoping et al. "Liuchan yaowu de linchuang yingyong" (Clinical use of abortifacient drugs). *Yiyao daobao* (Medical report) 15, 5 (1996): 230–231.
- Huang, Philip C. C. *The Peasant Family and Rural Development in the Yangzi Delta*, 1350–1988. Stanford: Stanford University Press, 1990.
- Huang Runhong. "Pingguo Xian 31 li yunchanfu siwang qingkuang fenxi" (Analysis of 31 women's deaths in pregnancy or childbirth in Pingguo County). *Youjiang yixue* (Youjiang medical journal) 20, supplement (1992): 33–35.
- Isett, Christopher M. *State, Peasant, and Merchant in Qing Manchuria, 1644–1862*. Stanford: Stanford University Press, 2007.
- Jaschok, Maria. Concubines and Bondservants: The Social History of a Chinese Custom. London: Zed Books, 1988.
- Ji Xiaofen et al. "Niuxi zai rengong liuchanshu zhong de yingyong (Use of ox knee in surgical abortion). *Shizhen guoyi guoyao* (Traditional Chinese medicine and pharmacy) 5 (2001): 446.
- Jiang Qingyu and Qi Yongmao, eds. *Zhongyao buliang fanying* (Adverse reactions to traditional Chinese medicine). Beijing: Zhongguo Zhongyiyao chubanshe, 1995.
- Jin Haiyan. "Banmao zhongdu 42 li" (42 cases of mylabris poisoning). *Yaowu buliang fanying zazhi* (Journal of Adverse Reactions) 5 (2002): 318–319.
- Jin Su. "Wu zhong changyong youdu chonglei Zhongyao de duxing ji jiejiu fangfa" (Five poisonous insects commonly used in traditional Chinese medicine and methods for treating patients poisoned by them). *Gansu Zhongyi* (Gansu Journal of Traditional Chinese Medicine). 16, 8 (2003): 39–42.
- Jin Yacheng. "Banmao neifu zhi si yi li baogao" (A case of death caused by ingestion of mylabris). *Jiceng Zhongyao zazhi* (Primary Journal of Chinese Materia Medica) 16, 4 (2002): 63.
- Jinpingmei cihua (Plum in the golden vase). Hong Kong: Xianggang Taiping shuju, 1982.
- Johnson, Elizabeth. "Women and Childbearing in Kwan Mun Hau Village: A Study of Social Change." In *Women in Chinese Society*, ed. Margery Wolf and Roxane Witke, 214–41. Stanford: Stanford University Press, 1975.

- Kline, Jennie, et al. "Fever During Pregnancy and Spontaneous Abortion." *American Journal of Epidemiology* 121, 6 (1985): 832–42.
- Ko, Richard J. "Causes, Epidemiology, and Clinical Evaluation of Suspected Herbal Poisoning." *Clinical Toxicology* 37, 6 (1999): 697–708.
- Kong Qi. "Duotai dang jin" (Be cautious about abortion). In *Zhizheng zhi ji* (Candid record of the Zhizheng era), 93. Beijing: Zhonghua shuju, 1991.
- Lee, James Z., and Cameron D. Campbell. *Fate and Fortune in Rural China: Social Organization and Population Behavior in Liaoning 1774–1873*. New York: Cambridge University Press, 1997.
- Lee, James Z., and Wang Feng. *One Quarter of Humanity: Malthusian Mythology and Chinese Realities*, 1700–2000. Cambridge: Harvard University Press, 1999.
- Li Bozhong. "Duotai, biyun, yu jueyu: Song Yuan Ming Qing shiqi Jiang-Zhe diqu de jieyu fangfa ji qi yunyong yu chuanbo" (Abortion, contraception, and sterilization: Fertility control and its dissemination in Jiangsu and Zhejiang during the Song, Yuan, Ming, and Qing Dynasties). In *Hunyin jiating yu renkou xingwei* (Marriage, family, and population behavior), ed. Li Zhongqing [James Z. Lee], Guo Songyi, and Ding Yizhuang, 172–96. Beijing: Beijing daxue chubanshe, 2000.
- Li Fu-kuang. "Problems Concerning Artificial Abortion through Oral Administration of Traditional Drugs." *Studies in Family Planning* 4, 8 (1973): 200.
- Li Ling and Huang Guangzhao. "Jixing tianhua fen zhongdu shijian er li" (Autopsy report on two cases of acute *tianhua fen* poisoning). *Tongji yike daxue xuebao* (Journal of Tongji Medical College). 19, 6 (1990): 417–18, 440.
- Li Wenzhi et al. *Ming Qing shidai de nongye zibenzhuyi mengya wenti* (Sprouts of capitalism in Ming-Qing agriculture). Beijing: Zhongguo shehui lexue Chubanshe, 1983.
- Li Xia et al. "Authentication of 31 Species of Toxic and Potent Chinese Materia Medica (T/PCMM) by Microscopic Technique, Part 1: Three Kinds of Toxic and Potent Animal CMM." *Microscopy Research and Technique* 70 (2007): 960–68.
- Liang Bingxue. "Banmao zhongdu er li baogao" (Two cases of mylabris poisoning). *Zhonghua neike zazhi* (Chinese Journal of Internal Medicine) 6, 7 (1958): 721.
- Liang Lei and Hu Yuchuan. "Banmao zhongdu yi li baogao" (A Case of mylabris poisoning). *Sichuan Zhongyi* (Sichuan Journal of Chinese Medicine) 4 (1989): 48.

Liang Jinquan and Wang Ningsheng. "Banmao de duxing fanying ji yuanyin fenxi" (Analysis of mylabris toxicity). *Xin Zhongyi* (New Traditional Chinese Medicine) 35, 7 (2003): 76–77.

- Liao Anshui and Cheng Yuzhu. "Banmao zhongdu er li baogao" (Two cases of mylabris poisoning). *Jiangxi yiyao* (Jiangxi Medical Journal) 3 (1986): 254–56.
- Luk, Bernard H. K. "Abortion in Chinese Law." *American Journal of Comparative Law* 25 (1977): 372–92.
- Ma Jianxin. "Changjian Zhongyao buliang fanying gai kuang" (Adverse reactions from some commonly used traditional Chinese medicines). *Hebei Zhongyi* (Hebei Journal of Traditional Chinese Medicine) 23, 2 (2001): 152–54.
- Maconochie, N., et al. "Risk Factors for First Trimester Miscarriage." *British Journal of Obstetrics and Gynecology* 114, 2 (2007): 170–86.
- Mann, Susan. *The Talented Women of the Zhang Family*. Berkeley: University of California Press, 2007.
- Maxwell, J. Preston. "On Criminal Abortion in China." *Chinese Medical Journal*, (Jan. 1928): 12–19.
- McMahon, Keith. Causality and Containment in Seventeenth-Century Chinese Fiction. Leiden: E. J. Brill, 1988.
- Moed, Lisa, et al. "Cantharidin Revisited: A Blistering Defense of an Ancient Medicine." *Archives of Dermatology* 137 (2001): 1357–60.
- Nappi, Carla. *The Monkey and the Inkpot: Natural History and Its Transformations in Early Modern China*. Cambridge: Harvard University Press, 2009.
- Ngin, Chor-Swang. "Indigenous Fertility Regulating Methods among Two Chinese Communities in Malaysia." In *Women's Medicine: A Cross Cultural Study of Indigenous Fertility Regulation*, ed. Lucile F. Newman and James M. Nyce, 25–41. New Brunswick, New Jersey: Rutgers University Press, 1985.
- ——. "Reproductive Decisions and Contraceptive Use in a Chinese New Village in Malaysia." Ph.D. diss., University of California, Davis, 1985.
- Nie Jing-Bao. *Behind the Silence: Chinese Voices on Abortion*. Lanham, Maryland: Rowman & Littlefield, 2005.
- Ouyang Ju and Jiang Youzhong. "Zhongyao zhongdu yuanyin fenxi ji yufang cuoshi" (TCM poisoning: Causes and prevention). *Shiyong Zhongyiyao zazhi* (Journal of Practical Traditional Chinese Medicine) 20, 12 (2004): 724.

- Pan Qiying. "Jixing banmao zhongdu yi li baogao" (A case of acute mylabris poisoning). *Zhongguo yikan* (The Intermediate Medical Journal) 3 (1957): 40–41.
- Population Council. "Safe Abortion," http://www.popcouncil.org/topics/mnh_safea-bor.asp# (accessed Sep. 22, 2010).
- Qin Yuhui and Li Peigan. "Hongcaotang kangzaoren 38 li" (38 cases using "red herbal decoction" to terminate early pregnancy). *Jilin Zhongyiyao* (Jilin Journal of Traditional Chinese Medicine) 3 (2001): 24.
- Rabl, Walter et al. "Camphor Ingestion for Abortion (Case Report)." *Forensic Science International* 89, 1 (1997): 137–40.
- Reagan, Leslie J. When Abortion Was a Crime: Women, Medicine, and Law in the United States, 1867–1973. Berkeley: University of California Press, 1997.
- Riddle, John M. *Eve's Herbs: A History of Contraception and Abortion in the West.* Cambridge, Mass.: Harvard University Press, 1997.
- Rigdon, Susan M. "Abortion Law and Practice in China: An Overview with Comparisons to the United States." *Social Science Medicine* 42, 4 (1996): 543–60.
- Ruan Qisi. *Chongkan buzhu Xiyuanlu jizheng (Washing Away of Wrongs*, reprinted with amendments, examples, and commentaries). 1807 edition; reprint Taipei: Wenhai chubanshe, 1968.
- Santow, Gigi. "Emmenagogues and Abortifacients in the Twentieth Century: An Issue of Ambiguity." In *Regulating Menstruation*, edited by Etienne van de Walle and Elisha P. Renne, 64–92. Chicago: University of Chicago Press, 2001.
- ———. Review of *Eve's Herbs*, by John M. Riddle. *Population and Development Review* 24, 4 (1998): 869–75.
- Seidlecky, Stefania. "Pharmacological Properties of Emmenagogues." In *Regulating Menstruation*, ed. Etienne van de Walle and Elisha P. Renne, 93–112. Chicago: University of Chicago Press, 2001.
- Shang Jing. "Shexiang fengshigao tieji tigao yaowu liuchan chenggonglü de linchuang guancha" (Clinical observation of success rate in using a musk compound to induce abortion). *Henan Zhongyi* (Henan Journal of Traditional Chinese Medicine) 23, 5 (2003): 30.
- Shepherd, John Robert. *Marriage and Mandatory Abortion among the 17th-Century Siraya*. American Ethnology Society Monograph Series Number 6, 1995.

Smith, Frederick Porter. "Chinese Blistering Flies." In Year-Book of Pharmacy, Comprising Abstracts of Papers Relating to Pharmacy, Materia Medica, and Chemistry, Contributed to British and Foreign Journals, from July 1, 1870 to June 30, 1871, 17–19. London: John Churchill and Sons, 1871. Accessed in Google Books online, original from Oxford University, digitized Nov. 14, 2006.

- Sommer, Matthew H. Sex, Law, and Society in Late Imperial China. Stanford: Stanford University Press, 2000.
- Stockard, Janice E. Daughters of the Canton Delta: Marriage Patterns and Economic Strategies in South China, 1860–1930. Stanford: Stanford University Press, 1989.
- Sun Zhongguo and Guo Yingli. "Banmao zhongdu siwang wei jian chu banmao su yi li fenxi" (Analysis of a fatality by mylabris poisoning, in which examination failed to detect cantharidin). *Hebei Beifang Xueyuan xuebao* (Journal of Hebei Northern University) 21, 6 (2004): 28.
- Tian Yanxia & Jiao Peimin. "Zhongguo gudai duotai kaolue" (Abortion in premodern China). *Yixue yu zhexue* (Medicine and Philosophy) 28, 3 (2007): 64–65.
- Tong Yaohua. "Banmao zhongdu de qiangjiu yu huli" (Emergency treatment of mylabris poisoning). *Zhonghua huli zazhi* (Chinese Journal of Nursing) 2 (1989): 82.
- van de Walle, Etienne. "Flowers and Fruits: Two Thousand Years of Menstrual Regulation." *Journal of Interdisciplinary History* 28, 2 (1997): 183–203.
- van de Walle, Etienne and Elisha P. Renne, eds. *Regulating Menstruation: Beliefs, Practices, Interpretations.* Chicago: University of Chicago Press, 2001.
- Wang Fengmin and Dai Zhannan. "Cui jing zhi yun tang kang zao zaoyun 34 li" (34 cases using "menstruation-encouraging and pregnancy-terminating decoction" to terminate early pregnancy). *Liaoning Zhongyi zazhi* (Liaoning Journal of Traditional Chinese Medicine) 10 (1993): 28.
- Watson, Rubie S. "Wives, Concubines, and Maids: Servitude and Kinship in the Hong Kong Region, 1900–1940." In *Marriage and Inequality in Chinese Society*, ed. Rubie S. Watson and Patricia Ebrey, 231–55. Berkeley: University of California Press, 1991.
- Weng Xinzhi and Gao Chongji. "Banmao zhongdu wenxian fuxi ji yi li baogao" (A case of mylabris poisoning). *Zhonghua yixue zazhi* (National Medical Journal of China) 43, 1 (1957): 48–49.

- Weng Yifeng. "Junji gongzhu pei shexiang duotai bu xia yi li" (A case of failed abortion using a musk compound). *Fujian Zhongyiyao* (Fujian Journal of Traditional Chinese Medicine) 21, 2 (1990): 13.
- Wolf, Arthur P. "Is There Evidence of Birth Control in Late Imperial China?" *Population and Development Review* 27, 1 (2001): 133–54.
- Wolf, Arthur P. and Theo Engelen. "Fertility and Fertility Control in Pre-Revolutionary China." *Journal of Interdisciplinary History* 38, 3 (2008): 345–375.
- Wolf, Arthur P. and Chieh-shan Huang. *Marriage and Adoption in China, 1845–1945*, Stanford: Stanford University Press, 1980.
- Wolf, Margery. "Women and Suicide in China." In *Women in Chinese Society*, ed. Margery Wolf and Roxane Witke, 111–42. Stanford: Stanford University Press, 1975.
- World Health Organization. *Unsafe Abortion: Global and Regional Estimates of Incidence of Unsafe Abortion and Associated Mortality in 2003*. Geneva: World Health Organization, 2007.
- WHO Representative Office in China. "Maternal and Child Health in China." http://www.wpro.who.int/china/sites/mch/overview.htm (accessed May 4, 2009).
- Wu Tan. *Da Qing lüli tongkao jiaozhu* (Edited and annotated edition of *Thorough Examination of the Qing Code*), ed. and annotated by Ma Jianshi and Yang Yutang, Beijing: Zhongguo Zhengfa daxue chubanshe, 1992.
- Xi'an Municipal Government Population and Family Planning Committee. "Qie ji zifu datai yao" (Never take drugs to induce abortion on your own). http://www.xianfp.gov.cn/Index/Catalog119/3105.aspx (accessed January 26, 2009).
- Xia Liying et al., eds. *Xiandai Zhongyao dulixue* (Modern toxicology of Chinese materia medica), Tianjin: Tianjin deji fanyi chuban gongsi, 2005.
- Xie Chuanjiao. "China's Suicide Rate Among World's Highest." *China Daily*, September 11, 2007.
- Xie Liansheng. "Qiantan jixing banmao zhongdu de zhengzhi" (Diagnosis and treatment of acute mylabris poisoning). *Gansu Zhongyi xueyuan xuebao* (Journal of the Gansu College of Traditional Chinese Medicine) 4 (1988): 19–20.
- Xu Chucai. "Jixing banmao zhongdu san li baogao" (Three cases of acute mylabris poisoning). *Zhonghua neike zazhi* (Chinese Journal of Internal Medicine) 6, 7 (1958): 720–21.

Xu Dachun. *Xu Dachun yi shu quanji* (Medical writings of Xu Dachun). 2 vols. Beijing: Renmin weisheng chubanshe, 1988.

- Xu Guojun and Chen Jinquan, eds. *Xianggang changyong youdu Zhongyao tujian* (Illustrated guide to toxic traditional Chinese medicines commonly used in Hong Kong). Hong Kong: Shangwu yinshuguan, 1994.
- Xu Lian. *Xiyuanlu xiangyi* (Detailed meaning of *Washing Away of Wrongs*). Hubei guan shu chu, 1890.
- Xu Lian and Xiong E, eds. *Xingbu bizhao jia jian cheng'an* (Cases in which the Board of Punishment judged by analogy to raise or lower penalties). Beijing: Falü chubanshe, 2009.
- Xun Xianwen. "Banmao zhongdu siwang er li" (Two cases of death by mylabris poisoning). *Zhongguo fayixue zazhi* (Chinese Journal of Forensic Medicine) 3 (1990): 156.
- *Yuan dian zhang* (Decrees and regulations of the Yuan Dynasty). Beijing: Zhonghua shuju, 1990.
- Zhang Cun. "Baihua dan duotai zhi baixiezheng jixing shen gongneng shuaijie siwang yi li baogao" (A case of death by septicemia and kidney failure from use of *baihua dan* as an abortifacient). *Guangxi Zhongyiyao* (Guangxi Journal of Traditional Chinese Medicine) 1 (1986): 30–31.
- Zhang Jizong et al. "Yong GC/MS jianding shiti zangqi zhong de banmaosu" (Autopsy use of GC/MS to identify cantharidin in organs, with analysis of one case). *Zhongguo fayixue zazhi* (Chinese Journal of Forensic Medicine) 3, 4 (1988): 228, 251.
- Zhang Junwen and Zhang Yuwu. "Zhongyao zhongdu 20 li baodao" (20 cases of poisoning with traditional Chinese medicines). *Xi'an Yike daxue xuebao* (Journal of Xi'an Medical University) 7, 2 (1986): 176–79.
- Zhang Yigu and Huang Guangzhao. "Jiu zhong youdu zhiwu zhongdu de shijian baogao" (Autopsy report on cases of poisoning with nine species of toxic plants). *Zhongguo fayixue zazhi* (Chinese Journal of Forensic Medicine) 2, 1 (1987): 20–22, 64–65.
- ——. "Youdu dongwu zhongdu 4 li shijian baogao" (Autopsy report on four cases of poisoning with toxic animal products). *Zhongguo fayixue zazhi* (Chinese Journal of Forensic Medicine) 2, 2 (1987): 114–17.

- Zhen Ze and Shen Zhanlin, eds. *Jiangsu cheng'an* (Jiangsu cases). In *Lidai pan li pan du* (Collected judgments from various eras), vol. 8, ed. Yang Yifan and Xu Lizhi. Beijing: Zhongguo shehui kexue chubanshe, 2005.
- Zheng, Zhenzhen et al. "Sexual Behaviour and Contraceptive Use among Unmarried, Young Women Migrant Workers in Five Cities in China." *Reproductive Health Matters* 9, 17 (2001): 118–27.
- Zhu Qingqi et al., eds. *Xing'an huilan san bian* (Conspectus of penal cases, with sequels). 4 vols. Beijing: Beijing guji chubanshe, 2004.
- Zou Weibo. "Koufu banmao duotai zhongdu zhi siwang de fayixue jianding" (Forensic diagnosis of fatal poisoning caused by oral ingestion of mylabris as an abortifacient). *Xiandai linchuang yixue shengwu gongchengxue zazhi* (Journal of Modern Clinical Medicine and Bioengineering) 5, 3 (1999): 203.

The editors and publishers apologize for an error in our June 2010 issue. The title of Qitao Guo's article should read "Cheng Minzheng and Lineage Politics in Mid-Ming Huizhou."

LATE IMPERIAL CHINA:

IMPECCABLE SCHOLARSHIP.

Tobie Meyer-Fong, THE JOHNS HOPKINS UNIVERSITY and Janet Theiss, UNIVERSITY OF UTAH, *Editors*

ate Imperial China is the principal journal for scholars of China's Ming and Qing dynasties. The journal presents methodologically innovative work in political and intellectual history, social, economic, cultural, and gender



history, as well as historical demography, art history, religious studies, philosophy, and literature. *Late Imperial China* regularly features new work by scholars working all over the globe, including North America, Europe, Japan, Taiwan, and the People's Republic of China.

Published two times per year.

Volume 32 (2011).

\$40.00, individuals (print or online) \$112.00, institutions (print or online) \$156.80, institutions (print & online) ISSN 0884-3236 / E-ISSN 1086-3257 To order:

Call: 800-548-1784 or 410-516-6987 Fax: 410-516-3866 Email: jrnlcirc@press.jhu.edu

Online: www.press.jhu.edu/journals

