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This is a highly specialized study of inundations and disaster control measures on the Yellow River in Shandong province during the years 1851-1911.

The period under examination begins with the collapse of a dam in 1851 that served as the harbinger of the great crisis of 1855, when a dike near Tongwaxiang in the eastern part of Henan province broke. At this time, the Yellow River shifted its lower course from the south of the Shandong peninsula to the north of it, draining along the bed of the Qing River into the sea. Years of administrative controversies followed as to whether the old river course should be restored or not. The governors of Jiangnan, Jiangsu and Henan pleaded against restoring the Yellow River to its southern course for fear of becoming responsible again for river control in their respective provinces. The gentry of Jiangnan also opposed the restoration as a means to avoid the obligation to send grain tribute to Beijing through the adjoining Grand Canal (pp. 60-63). Eventually, financial reasons and a fear of social unrest among workers meant that the breaches were not repaired until the year 1888 (pp. 71-72). For this reason river control along the new course had remained provisional during this time, resulting in one hundred minor breaches of dikes along it. Covering this aftermath of the crisis of 1855, the detailed investigations of the author end with the fall of the Qing dynasty and the influx of western hydraulic knowledge (pp. 2, 7, 372-373). However, he also touches on the infiltration of China by foreign geographers, merchants, and engineers and the subsequent transition to the modern age (e. g. pp. 74, 131-134, 245, 261, 323-324, 349-351), with a brief overview of the Republican Era (pp. 54-56).

According to the author, the aim of the book is to provide a comprehensive and detailed description of the shifting of the river bed, its effects, and the efforts of the Qing administration to regulate and control the river along its new course (p. 7). His overall thesis maintains that flood disasters are the direct result of hydraulic processes whether natural or man-made, and only the indirect result of political, economic, and social factors (p. 11). This means that the Yellow River is looked upon primarily from a micro-historic point of view (p. 12). It is from
his micro-historic point of view that the author takes a descriptive rather than an analytic approach to his subject.

His descriptive approach is reflected in the encyclopedic structure of the book. In Chapter 1 the author deals with the major and minor inundations of the Yellow River in Shandong province and asks what their effects were, including the economic and social consequences (pp. 13, 19-56). Chapter 2 focuses on the controversial concepts for coping with the inundations that were devised and the ensuing hydraulic measures that were taken, posing the question of what the relation was between the two (pp. 13, 57-145). In chapter 3 the river administration itself is looked into. The question here is how the administration was adapted to the new situation after 1855, and how a new provincial administration specializing in river control was built up to take its place. Efficiency and dysfunctional factors in the relationship between provincial and local administrations as well as local society are examined closely, with two case studies presented as illustration (pp. 13, 146-240). Chapter 4 deals with hydraulic techniques, including hydraulic cartography, focussing on whether it was efficient and how it was modernized (pp. 13, 241-301). The supernatural dimensions of deities and ritual as an integral part of river administration and river control is the subject of chapter 5 (pp. 302-324). Chapter 6 is concerned with emergency relief measures for the general population, with the emphasis on the quantity and organization of the measures (pp. 13, 25-370). This structure allows the book to be used as a sort of encyclopedia, all the more so as its appendix contains two excellent indices with integrated glossaries of geographical and personal names and of subject terms (pp. 431-436, 437-455). Only a few Chinese equivalents for administrative titles are lacking (e.g. „Sonderbeauftragter„).

The author's claims to offer a comprehensive and highly detailed presentation of the subject are fully achieved, but at the cost of clarity in the argumentative structure. The essentially descriptive approach of the book has resulted in an overwhelming number of excursions, with the author sometimes deviating from his subject and getting lost in fine details or other historical periods (e.g. pp. 242-243, 245, 250, 300-301, 341, 373). This additional information could, perhaps, have been put into footnotes, in an appendix, or else the text could have been subdivided by subtitles. At any rate, the text would have benefitted from many more subsections or paragraphs.

Nevertheless, it is from these excursions that the reader may gain very close insights into micro-history. A few examples may suffice: dike-building sometimes resulted in armed fights (xiedou) between neighboring villages (pp. 51-52). Special emissaries in charge of hydrology inspecting small localities had to be looked after with costly hostels and sedan-chairs (pp. 136, 367). Dike workers were not paid per day but per cubic measure (fang) of earth shifted by their work, with certificates being handed out for every cubic measure that could be changed into money later on (pp. 215-216). Charity organizations (shantang, i.e. „charity halls„) created a remarkable kind of advertisement in order to attract
sponsors for disaster relief (p. 343). Centers for the distribution of congee (zhouchang) handed out their meals by an intricate system of colored "slips of bamboo for rotation," (xunhuangkan) in order to avoid misuse (pp. 357-359).

Understanding of the text is enhanced by the inclusion of figures, plates and tables, but it would had been much easier for the reader to follow the explanations if the author had included more diagrams to illustrate the hydrological concepts and maps, or cartographic sketches to point out the relative position of the localities as well as distribution of quantitative spacial data (chapter 2, esp. pp. 59, 60). With such additional graphic material the presentation of the text would have been much more transparent to the reader and therefore even more instructive. This is a major shortcoming of the book.

One should however take into consideration that this is the first time that such a wealth of primary archive material has been presented to the reader. There has been no such comprehensive study in either western languages or in Chinese or Japanese (pp. 9-10). The author keeps very close to primary sources. He mainly relies on the Shilu (Veritable Records), the Donghua lu (Records from the Donghua Gate), the respective sections in the complete works of high officials, reports in the Jingbao (Beijing-Gazette) and other newspapers such as the Shenbao (founded in Shanghai 1872), local gazetteers, and petitions to the throne by the director-general of waterways and the provincial governors. The author also looked for original documents preserved in the First Historical Archive (Diyi lishi dang'an guan) in Beijing, especially the "reference copies of the petitions to the throne," (lufu zouzhe) with "clear lists," (qingdan) enclosed (pp. 14-15). The author complains of the paucity of sources preserved from provincial and local administrations. Thus the Zai Hui jilüe (Records of holding office in Hui[min]) and the Zaizhen riji (Diary of Disaster Relief), both by Liu Tang, become important sources of information for the local level that, however, cannot be counterchecked by other sources (pp. 16-17).

The author succeeds in reconstructing a puzzle while coping with the difficulties of incomplete and incongruent data. The data are qualitative as well as quantitative. As far as the quantitative data are concerned the author develops a comparative method. In order to make the figures for the various inundations comparable to each other, he proposes an index of "disaster-strickeness," ("Katastrophenbetroffenheit".). The index is made up by the number of villages affected in the district multiplied by the degree of the severity of damage indicated by tax exemption according to administrative records (p. 25 and tab. IV, XXIII-XXXII). The author is well aware of the recurring problem of biased "administrative," and "political," figures (pp. 33, 34).

He concludes that the inundations actually affected no more than ten percent of the population and agricultural area of Shandong. Yet the economic loss by far exceeded the province’s total tax income as well as the expense of river control (pp. 371-372). As the central authority responsible for river control, the Administration of Water-ways underwent a process of disintegration from 1855 that lasted until 1902. Responsibility shifted from the central to the provincial
and local levels. By the end of the dynasty a new irregular river administration for Shandong came to be institutionalized (pp. 375-376). The intra-bureaucratic debates produced no systematic long-term plan for dike-building as a measure of river control. Authorities evaded any pro-active policy and only reacted to problems, in the end deciding on the worst possible solution of inadequate dikes (pp. 374, 380). Dike-building problems were aggravated by the interference of interest groups, such as the influential „salt winning households,“ (zaohu) (pp. 126-129). Bad quality earth was sometimes used for dike-building, and repair work on dikes was done only in cases of impending danger. It was the end of the dynasty before bricks and stones came to be used as material for reinforcing dikes (pp. 377-378), while the gathering of relevant hydrological data and cartography remained unchanged and were not modernized (p. 380).

By the beginning of the Guangxu Era (1875-1908) the state could no longer cover the expenses necessary for river control. Therefore, it had to be financed by selling off offices to private contributors. An unfavorable side effect of this contribution system was the creation of new officials interested only in self-enrichment (p. 378). Disaster relief was taken over by non-state charity organizations run by the new urban class of gentry, merchants and officials. Selling offices in exchange for monetary contributions led to decentralization and loss of control by the central authority of the state (pp. 352-353). During the late 19th century relief for the affected population was more and more provided in the form of money instead of food. This tendency was caused by the almost complete breakdown of the grain storage system, which again was an effect of the Taiping and Nian rebellions (p. 378). Yet, disaster relief was more an administrative than a financial problem as state bureaucracy did not reach down to the local leaders in the rural communities (p. 379). As people became aware of the crisis, enfeoffments and veneration of popular river deities increased (p. 372). As a result of his study, the author is able to underline the inefficiency of the administration and the inadequacy of technical measures to bring the Yellow River under control.

In conclusion, the book may be highly recommended to specialists in Chinese bureaucratic history and experts in Chinese hydrology.