

中国山河全书

(上卷)

张立汉 主编

青 岛 出 版 社  
QINGDAO PUBLISHING HOUSE



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## 《中国山河全书》导读

世纪之初,《中国山河全书》问世。博采众长,聚腋成裘。包括总论、山系、河流、湖海,共4卷36章,洋洋400多万字。古称“类书”,今日工具书,具备浏览、查询、检索等多项功能,也是建设中国地理知识库、数据库的基础工作之一。有幸先睹为快,爰为导读,记述心得,愿与读者分享其中乐趣。

方志之学,源远流长。远溯《禹贡》、《山海经》已2000余年。与时俱进,代有起落。大体国富民强,方志则兴;战乱腐败,方志则衰。而今斗转星移,改革开放,举国上下,全面建设小康社会,经济建设日新月异:油气东输,直通京沪;青藏铁路,远达拉萨;三峡库水,北调京津。全国六纵八横,高速公路畅通,铁路提速,人流旺盛。天保工程,带动绿化全国;退耕还林(还草),促进生态优化。记述这些沧桑巨变,歌颂山川秀美,正当其时,此其一。

自然环境变迁,举世瞩目。温室效应,促使气候变暖,导致西风强劲,我国西部温带荒漠,降水略有增加趋势,艾丁等内陆湖泊水面上升,面积扩大。大西北植被指数增加,绿洲扩大。而我国东部由于人类干预十分强烈,生态恶化难以遏制。北京风沙尘暴突显;云梦湖泊疏干过半,南方外来物种入侵,青藏高原冰川后退。……记录20世纪的变化,预测21世纪的未来,《中国山河全书》的编纂,承先启后,发人深省。此其二。

人类对地观测系统建设能力空前提高。我国气象、海洋与资源系列卫星,均已业务运行。地面分辨率数据达厘米级,高光谱图像细分已达纳米级。合成孔径雷达,已实现全天候、多极化。对山河湖海的动态监测,令人耳目一新。例如青藏高原湖泊总数,百年探险考察记载,不过200;而卫星遥感图像上,大于二平方公里的湖泊超过800。北京市境内长城遗址,原先统计为273km,遥感普查后增加到679km。海岸线总长,上世纪30年代量测约9000km,而今详测达18000km。岛屿数目,原统计为3330个,而今增加到5000多个。此其三。

古代地学论述,详于水而略于山。近代先贤承前启后,不断推陈出新。翁文灏著《中国山脉考》、李四光著《中国大地构造纲要》,联系大地构造格局、地质历史演化过程,对山河的理解渐趋科学。张伯声论古黄河的链接,沈正昌、



任美镠论金沙江河流袭夺,钱宁对黄河水沙规律的剖析,游联元等对长江鹅头洲式曲流发育的模型,艾南山等东南海岸线的分型分维研究,则对山河的科学认识,更加深入。全球定位系统对地壳形变的精密测量,激光声纳对海底地形的扫描,大陆深钻已突破 3000m,诸如此类现代高新技术的介入,必将对大地山河的再认识,更加深入到新的境界。此其四。

人地关系日益紧密。全面建设小康社会,追求人与自然的和谐,谋求社会经济的可持续发展。许多山河湖泊的界定与命名,与时俱进,多有新解。山河随人文发达而名世,例如,古代以中原文化为核心,五岳独尊。而今中华民族大融合,则喜马拉雅山区的世界级巅峰,成为探险家向往的乐园;香格里拉、九寨沟和张家界,列为世界自然遗产和旅游胜地。遥感图像虽然能发挥定位、定量的特长,但不能全面显示人文的标志。博古通今,融汇贯通,则非《山河全书》莫属。此其五。

我国与四邻的陆地边界,绝大部分已于 20 世纪勘定、签约。国内省、县地界,已经全部勘测议定完毕。沿海经济管辖区的使用、开放,也纳入了有序的管理、监督。自秦汉以来,省、区建制中依山河湖海为界的传统,沿袭至今,并进一步得到法律的确认。山河范围的界定与域名注记,直接涉及到水资源分配、污水排放、矿产开发、生态补偿等实际行政、经济管理权益;特别是关系到跨省际的流域管理,跨省市的交通、电力网的统筹规划与区域功能区划的合理化、优化组合,深为各级领导所关注。例如京、津、唐地区,长江三角洲与杭州湾地区,珠江三角洲与港澳地区,水网交织,城镇密集,交通发达。山河归属的历史沿革的查考,更是立法的重要依据。与现代城市化和区域经济发展相适应的、要求调整行政区划的呼声,也提到日程上来了。此其六。

综上所述,《中国山河全书》的问世,是非常及时的、必要的。张立汉教授等竭忠尽智、呕心沥血、鞠躬尽瘁、甘为人梯的敬业精神,我是十分敬佩的。他们为后学攀登科学和建设事业的高峰,编纂这部大型地学基础科学著作,为祖国经济建设服务,为科研生产服务,为广大读者服务的决心和毅力,感人至深,他们得到了地学界新老科学家的支持;他们为振兴中华,全面建设小康社会,弘扬祖国先进文化,提高全民科学素养的这一硕果,一定会受到更广泛的读者们的欢迎!

陈述彭  
2003年1月10日

## Guided Reading to *Mountains and Rivers of China*

Early this century, *Mountains and Rivers of China* was issued and open to public, which, adopting advantages from all schools, includes the chapters General View, Mountain System, River System and Lake-sea System altogether 4 volumes of four million Chinese characters. It is either called reference book or now encyclopedia in the ancient times, valued as one for reading, consulting and inquiry, and also the basic work for the modern construction of Chinese geographical repository and databank. I have had the pleasure of reading the book first. Being the guider for the reading I am pleased to share the interests together with the readers.

The science of encyclopedia recalls the long history in China as *Yu Gong* and *A Record of Mountain and Water System* 2000 years ago. The prosperity of it depends on the development of the society, it will be flourishing when the society is wealthy and prosperous, or vice versa. At current in the fast developing China great changes have taken place everywhere especially in the science of geography: gas transportation connecting the cities of Beijing and Shanghai; Qinghai-Tibet Railway extending to Lhasa; the Reservoir of Three-Gorges; the water-transportation to Beijing and Tianjin; six vertical, eight horizontal extend railways casing most part of China; construction of express way makes the fast transportation net hovering in the map of China. The quicken-up of the railway encouraging the passenger; the Project of Tianbao returning the green color to mountains. Taking down all these changes is the first function of this book.

It is known that natural environment changes greatly: green house effect influences the temperature, which brings the strong west-wind. The rainfall in the desert in variable zone of the west of our country is increasing a little as to make the level of some inland lakes rise and enlarge the coverage. The change also exhibits the increase of vegetation and oasis. While in the east for the sake of various interferences of the human being it is of great difficulty to terminate the depravation of the environment. To Record the variation of the nature in the 20<sup>th</sup> century such as the emergences of sand-storm; half-dried Yunmeng Lake, in the south the invasion of the external species; the withdrawn of the glacier boundary, and predict the future varieties of the 21<sup>st</sup> century the said book functions as a link between past and future and sets the readers thinking. This is the second function of the book.

In the time of scientific and technical change with each passing day the human is in high

spirit in the research of geography and its construction. The satellites of weather, ocean and resources are presently running in the space and providing the data with an accuracy of centimeter, the analysis of the Hi-spectrum ensures the research at the degree of n-meter; the space radars are manufactured to operate in all-weather and multi-functioned. With such kind of equipments the results of findings enables everything new. Before the appliance of the new advanced technique less than 200 lakes were found in Qinghai-Tibetan highland which accumulated the records of one hundred years. But in the map of the satellite remote sensing 800 have been found larger than 2 km<sup>2</sup>; the remaining Great Wall in Beijing was said to be 273km and it is now changed to 679km, the length of coast line changes from about 9000km to 18000km, and the number of islands from 3330 to 5000. That is the third function of the book.

In the ancient geographical research books much more descriptions were given to water system than to mountains. While in modern times the early scientists took over the previous generations' task and devoted themselves to improving the condition, for instance *A Research of Chinese Mountain* by Weng Wenhao; *A Brief Introduction of Geographical Construction in China* by Li Siguang. These early writers of the neoteric times published their books connecting with the structure and the geographical evolvement, thus the understanding of the science of geography tended to be more proper to the nature. Other books as Zhang Bosheng's on the chains of Yellow River; Shen Zhengchang and Ren Meie's Jinsha River; Qian Ning's Analysis of Water and Sand in Yellow River; You Lianyuan's the Development of Etou Delta of Yangtse River and Ai Nanshan's Research on the shapes and Distances of the Southeastern Coast Line, all these went deeper into the understanding of the natural science of geography. The measurement of the whole globe with the new technique of GPS system, laser sonar and drilling of deeper than 3000 meter enable us to see clearer of mountain, sea etc. With the newly developed instrument and technique the science of geography will reach a new condition. This is the fourth function of the said book.

Present China is stepping fast into a wealthy world and more and more geography knowledge is needed to pursue the harmony of the nature and human as well as the continuous development of economy. As coming into the modern time many mountains and rivers have changed their names. The center part of the country was, in the ancient time, the heart and origin of the Chinese culture, and people showed great attention to Mount Tai among the five mountains scattered among the area of the central part. Presently the entire Chinese culture melted as one, Shangri-La, Jiuzhai Valley and Zhangjiajie, etc. are admired by people from all parts, even the summit of Himalaya is taken as the paradise of the explorer from all parts of the world. Although the remote sensing devices and GSP system plays an important role, it can neither express the human marks nor can it cope with the connecting with the ancient and modernization. It is the said book's duty to function. This is the fifth.

The sixth function lies in that the boundaries of all the neighbor countries were settled

with in the period of the 20<sup>th</sup> century meanwhile inside the country all the boundaries of provinces and counties have been clearly divided. The open and appliances of the area alongside of coastal lines have been listed in the effective management and administration. Since the Qin Dynasty the division of the boundary have been regulated as they are divided by the natural division of mountains, rivers and lakes, which have been reused and legalized. The ownership of natural resources is keenly connected with the right of their appliance, irrigation, drainage, development of minings, biological compensation and the right of administration, especially the administration of river, transportation and power net and the optimization. For example along the area of Beijing, Tianjin and Tangshan area, between Yangtse River Delta and Hangzhou area and Pearl River area and Honkang and Macao the water systems of these areas run like net, crowded with towns and villages and the transportations are very convenient. All these need the strict and clear establishment of law to classify the right of ownership th adjust to the conditions of modern society.

In General, the issuing of *Mountains and Rivers of China* is very well-timed and necessary. I admire that Professor Zhang Lihan tries all his loyalty and talent to exert his utmost effort and reconciled to be steps for others to get to the summit of geography. For sure that the readers will be deeply moved by the spirit of his and his colleagues' contribution to compile such a book which will be constructive to the construction of basic science of geography, the economy of our motherland, the research work and production, to service of readers. He has won the support of old and young scientists of geography and it is considered honestly by these scientists that such a contribution to the flourishing of our motherland, the construction of well-to-do society and the development of our brilliant culture will be cordially welcomed by the vast readers.

**Chen Shupeng**

**Academician of  
Chinese Academy of Science**

**Written in April 2003**

## 序 一

山河湖海是自然地理学的重要研究对象。中国幅员辽阔,高山长河众多,历来有关的研究专著、论文十分丰富,但将诸者结合在一起作出系统研究的出版物尚不多见。张立汉教授为首的学者共同研著的《中国山河全书》的出版,是一件可喜的事。本书具有如下几个特色:

第一,本书集中国山河湖海于一体,涉及地学全部领域,内容广泛,资料全面、系统,是一部填补我国地学空白的专著。

第二,作者多为我国学界著名专家、教授,有些还是学界顶尖科学家。本书是他们几十年来亲身实践的经验总结,资料翔实可靠、新颖且多处于前沿,具有很高的学术水平,处于国内领先地位。

第三,本书是我国地学研究成果的总结,是资料库,是国情大全,在科学研究和生产实践两方面都有重大价值。她的出版对我国开展大规模经济建设,特别是资源合理开发利用,中西部山区建设,流域综合治理,国土整治、规划与布局,环境保护和灾害防救治等,可提供基础资料和科学依据,对促进各学科向研究中国山河湖海渗透起导向作用。

第四,本书内容多涉及当前许多热门课题,应用范围极其广泛,是科研理论界、生产部门、教育界、政府部门、灾害环保部门以及广大人民群众案头必备的科学文献。

本书付梓之际,谨写数言,以为之序。

陈国达

2004年春

## FOREWORD I

The study of rivers, mountains, lakes and oceans is an important object in Physical Geography. China is a country with a vast territory, which has a good many great mountains and long rivers, on which abundant monographs have been written. However, it's rare that some scholars do the research systematically together. So it's a gratifying thing that the book compiled by the scholars led by Professor Zhang is to come out. The features of this book are as follows:

A. Having collected the materials of the rivers, mountains, lakes and oceans of China together, they make the book the first monograph that fills the vacancy of geoscience in China. Covering a lot of ground with all-out systematic materials, the book touches, almost every field of geoscience.

B. The authors are all famous specialists and professors; some are top scientists in the academic circle. The book is the summary of their dozens of years' experiences gained from their practice. The materials are detailed, accurate and reliable, new and original; of which many are on forward position. The book has got to a very high standard in science and it is in the leading position in China.

C. The book is the summary of the achievements in geographic study — a data bank, a complete collection of national conditions. It is valuable both in scientific study and production. Its publication will provide basic materials and scientific bases for the foundation of large-scale economic construction of China, especially for the reasonable development and utilization of resources, the construction of the middle-western mountain areas of China, the synthetically harness in drainage area, the program and overall arrangement of territory, environmental protection and prevention and fighting against natural adversities. Moreover, it will play a role in directing every branch of learning towards the study of rivers and mountains, lakes and oceans.

D. The content covers the objects in great demand at present and the sphere of application is very wide. It can be used as teaching materials in academic study and education. It can be used by government, the department for preventing and fighting against adversities,

production, environment protection. It should be the scientific document on the desks of scientists and researchers and leaders of the government.

Now, the book is coming to its birth, I am pleased to write down the above words as the foreword.

**Guo-da, Chen**

**An academician, whose reputation is distinguished  
in Academy of Sciences, China**

**May 28, 2004**

## 序 二

地方志的编写是我国地学研究的一个重要传统。《尚书·禹贡》和《山海经》等古代地理著作,被视为最早的方志研究成果。从公元2世纪开始,民间就陆续出现了不同类型的志书。到公元10世纪以后,学术界认识到修志有“佐明王以扼天下”的功能,有关修志的论述逐渐增多起来。清代是中国历史上修志的极盛时期,除了以行政区(省、州、府、县、乡、镇)为单元的综合性方志外,还有专题性的山志、河志、湖志、岛屿志、古迹志、游览志等等,名目繁多。据不完全统计,目前收藏于国内外主要图书馆的中国历代地方志近9000种,其内容涉及地质、自然地理、人文地理、历史、天文、气候、自然灾害、经济、物产、文化、人文风尚、人物等诸多方面,可谓包罗万象。从现代观点来看,如此大量的志书,实为多种学科极其宝贵的历史资料信息库。新中国建立以来,在人口和行政区划变动、水旱和地震灾害等研究方面,即有效地利用了千年以来地方志所包含的资料。

在中国历史上,凡是政治长期安定、经济发展,出现国泰民安局面时,编写志书的任务就会提出来,所谓“盛世修志”,也许正是社会发展的必然规律。新中国建立后,毛泽东主席和周恩来总理早在1958年就倡议全国各地修地方志,国务院科学规划委员会还专门成立了地方志小组,起草《新修地方志条例》,此后受到“十年浩劫”的干扰而中断工作。直到1983年经中央批准才恢复了地方志小组活动,1985年颁发了《新编地方志工作暂行规定》,于是就出现了由政府主持修志工作的新局面。各省(自治区、直辖市)都成立了地方志编纂委员会,建立了修志专业队伍,开展了中国历史上规模最大、最系统的文化建设工程。到1996年已出版了第一批省、市、县志书约3000多部。《中国山河全书》的编写出版,正是在这股修志大潮的带动下,民间自发地编写专题性志书的熠熠生辉的一项可喜的产物。

《中国山河全书》包括总论、山系、河流、湖海4卷36章,400多万字,卷帙浩繁,它是古代《山海经》等经典著作之后,一部以新的观点、新的材料、新的方法和体例编写的专题性志书,它是在我国现代科技发展过程中出现的一部具有划时代历史意义的巨著。正如本书前言所说:本书“是中国不同学科的数十



位著名专家教授共同努力的结晶”，包含了许多学派的不同观点，内容丰富，全面系统记述了中华大地的锦绣山河，而且密切联系生产建设的实际问题，资料翔实，信息可靠，可广泛供政府部门的决策者和管理人员、科研部门的研究人员、生产部门的工程技术人员、高等院校的专业师生和企事业单位的科技工作者参考。我深信学术价值高而且实用性强的《中国山河全书》这样的新志书的出版，肯定会受到国内乃至海外广大读者的欢迎。

吴传钧

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