

浅谈福建省行政区划地图集的编制特点



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摘要:通过对《福建省行政区划地图集》的资料使用、内容选题、符号与色彩设计等特点进行分析与探讨,结果表明《福建省行政区划地图集》达到突出行政区划主题的目的。

关键词:行政区划;要素;符号

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行政区划,是国家根据政治和行政管理的需要,将领土划分为若干层次、大小不同的行政区域,并在各个行政区域设置相应的地方国家机关,管理地方行政事务。作为国家结构和政治体制的重要形式,行政区划是否科学合理,关系到国家长治久安、社会和谐稳定和区域协调发展,对推进社会主义经济建设、政治建设、文化建设和社会建设都具有十分重要的影响。编制行政区划地图集,反映地方行政建制设置及其区域划分的全貌,不仅是政府实施行政管理的一个客观要求,而且是政府面向社会提供公共服务的一项具体举措。新中国成立后,福建和全国各地一样,由于界线不清而引发的管辖范围、资源归属的争议纠纷时有发生,影响了边界地区的稳定;在地图上,行政区域界线只能长期沿用“权宜画法”表示。1996年,国务院决定全面勘定县级以上陆地行政区域界线,经过8年艰苦努力,于2002年圆满完成了3条省级界线、192条县级界线(含市区间界线)的勘定任务,并于2004年勘定了全省1898条乡级界线。2007年,福建海域勘界工作全面完成。在此期间,福建地名管理工作也逐步得到规范和加强。这些工作成果,为编制出版权威的《福建省行政区划地图集》(简称图集)创造了必要条件。

1 图集基本情况

图集为16开本,是福建历史上首部权威的行政区划地图集,由120幅地图和10万文字组成,全面系统地标绘了当前福建法定的乡级以上行政区域界线和各级政区、村级建制的全部标准名称,详细表示了各级政区及政府驻地的分布情况,简要反映了福建两千多年来的行政区划沿革。

2 编图资料

项目建设过程中始终坚持将《图集》编制成一本

福建省权威性的行政区划资料的原则,收集了民政、测绘、海洋等多部门、多学科的最新资料,充分利用经济建设、社会发展以及相关专业部门的最新研究成果和数据,项目组的主要负责人员对全部资料进行整理、分析、评价、标识,确定所使用的资料、指标以及资料的使用范围、使用程度及处理方案,综合归类分档后提供给编图使用。民国及以前的历史沿革以福建省地图出版社2004年出版的《福建省历史地图集》中的相关图幅为基本资料,设区市、县(市、区)图以1:25万或1:5万地形图(DLG)数据为基础资料,各级陆域行政区域界线以福建省民政厅行政区域界线勘定成果数据为依据,居民地及自然地理名称以国务院和省级人民政府依法批准的标准名称为依据,海域界线以福建省海洋与渔业局海域勘界成果数据为依据,建制沿革参考各县(市、区)方志和《中华人民共和国地名词典·福建省》,面积、人口、行政区划等统计数据由各级民政部门提供。

3 内容选题与结构编排

《图集》内容选题紧密围绕行政区划这一主题,全面、系统地反映福建省的行政区划、标准地名、水系、交通,既反映了福建省行政区划现状,也反映历史沿革与政治、经济、文化以及地缘之间的内在联系。

福建古为闽越地,秦代设置闽中郡,由此历经了两千多年的建制沿革,民国以前的历史沿革图根据历史学家的建议选择了秦代、西汉、东汉、三国、东晋、隋代、唐代、五代、南宋、元代、明代、清代、民国等主要历史时期的政区沿革,考虑到1887年台湾从福建析出设立台湾省,从此福建省的境域基本固定,因此清代安排两幅图表示,解放后福建省的行政区划进行了几次较大的调整,解放后选择了1951年、1960年、1973年、1985年、1999年、2002年的福建省行政区

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划,这部分图按从古至今的顺序进行编排。这部分图主要表示了县级(或相当于县级)的行政区划界线与主要居民地等内容,并采用古今对照的形式进行表示。

县(市、区)图组主要反映福建省行政现状,是这本《图集》版面最多的图组,这部分图详细表示福建省各级行政区划设置与行政区划界线、标准地名,以及与行政区划密切相关的水系、交通等要素,其先后顺序原则上按《中华人民共和国行政区划代码》进行编排。为了突出主题,项目组的主要成员对各种制图要素的空间分布特征进行了详细地研究,在掌握各要素空间分布的规律之后制定了各要素的分类分级表以及选取指标。如根据大量资料以乡镇为单位计算出居民地的密度,真实、客观地反映了福建省居民地在空间分布上的规律,揭示了居民地的群集性分布特点,在掌握这一特点之后利用图解计算模型确定各级居民地的选取指标,并进一步计算出各乡镇居民地选取数量。

文字、表格是地图的重要补充手段,可以弥补地图无法表示的深层次的背景信息,文字、图表与地图优势互补,内容表现更加深入全面,这部分内容集中放置在书的最后。以文字的形式介绍省、设区市、县级介绍各历史时期行政区划的设置、合并时间,不同时期的隶属关系,以及解放以后的境域变化。以表格的形式表示福建省的各级行政区划、行政区划代码、面积、人口、1949年-2006年福建省建制县以上沿革等内容。

4 注重创新意识和时代特色

图集创新意识和时代特色是现代地图设计的一个标志。设计中要力求做到在前人研究的基础上,有所突破,有所创新,这是图集设计的最终目的。

4.1 装帧设计与符号色彩体系设计的创新

装帧设计和符号体系的设计进行统一的美学构思,广泛汲取美学、构成学、色彩学等理论和知识,用它们指导整体图集的设计。

装帧设计包括版式设计、图幅设计和整体设计。装帧设计既考虑了单幅图的图面配置及特性,又顾及全图集的统一协调,同时兼顾了读者生理和心理的感受能力及习惯性的表示手法。在图面整饰方面,地图采用彩色边框的整饰方法,图组、图幅名置于页眉,副图名置于图内,比例尺置于页脚;文字介绍和统计表格无图框,四周留白,页码置于左右侧。在图面配置原则上一幅图一个展开页,部分较小的图幅则几幅图安排一个展开页。

符号与色彩体系设计,直接影响图集内容表现力

度和表示的详细程度,关系到表示方法与表示程度能否实现的问题。符号设计充分利用了符号的形状、大小、构图形态等视觉变量,以及色彩的色相、饱和度、明度等要素,如居民地符号均用圈形符号表示,以圈形符号的大小、构造、颜色区分不同行政级别的居民地,以线的粗细、颜色、单双线来区分不同级别的道路,以不同的粗细与线型来表示境界,并采用质底法,突出各行政区域,这样使整本图集的符号色彩具有系统性、逻辑性,每类符号具有自己独立特点和表现力,增强了所表现事物的层次感,突出主题要素。

4.2 工艺流程与技术方法的创新

充分应用计算机技术、地理信息系统技术、数据库技术,将上述技术融入到图集设计中去。采用先进的工艺流程和技术方法、先进的彩色出版系统和先进的数控四色印刷技术。在完成纸质地图集的同时,也能利用其过程或最终数据成果为建立动态省情信息库,为政府管理部门建立电子政务提供科学的基础数据。

5 结 语

《图集》充分利用了最新勘界成果,地名普查成果和基础测绘成果,是一本对外公开发行的集法定性、现实性、权威性、实用性、史料性于一体的行政区划工具书,是一部反映福建行政区划现状和发展历程的重要文献,包含丰富的信息量,具有时代特色和历史收藏价值。出版2年来深受社会各界人士的好评,它为各级党政领导和有关部门进行宏观决策、加强行政区划规范化与科学化管理、维护社会稳定、促进经济发展、进行行政区划规划、研究行政区划变迁、地名更迭提供科学依据,为海峡两岸经济区建设提供了基础信息。同时为海内外各界人士和港澳台同胞了解福建历史沿革、来闽投资兴业、探亲访友、寻根问祖提供了指南。

参考文献

- [1] 祝国瑞,苗先荣,陈丽珍.地图设计[M].广州:广东地图出版社,1993
- [2] 张克权,黄仁涛.专题地图编制[M].北京:测绘出版社,1982
- [3] 王家耀,范亦爱,韩同春,等.普通地图制图综合原理[M].北京:测绘出版社,1993
- [4] 祝国瑞,郭礼珍,尹贡白,等.地图设计与编绘[M].武汉:武汉大学出版社,2001
- [5] 尹贡白,王家耀,田德森,等.地图概论[M].北京:测绘出版社,1991

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Experience on the Geological Engineering Survey in Guinea Bauxite Exploration by LI Baojie

Abstract Exploration for bauxite in Guinea is a large survey area, short period, lack of available information, and other adverse conditions. The paper summarized the methods, experience and skills of the coordinate system choice, control network, topographic mapping, engineering survey etc. in its geological exploration.

Key words GPS-net, topographic survey, geological engineering survey (Page:114)

Quality Control Research on the Highway GPS Survey by DU Xin

Abstract Highway Surveying work is the basis of highway engineering design, control, measurement and measure their quality on the highway played a decisive role. This paper described the road when the GPS control survey prone to problems, analyzed the cause of the error, put forward specific measures to ensure the quality of measurements, GPS control survey of the future highway has a guiding role.

Key words standard, coordinate system, GPS adjustment, quality control and inspection (Page:116)

Cross-section Morphology Analysis of the Yangtze River by WANG Yan

Abstract Extracting different historical period cross-sections at different locations could capture river flushes and siltation. This paper achieved creating DEM by the river point data through the Spline interpolation, extracting the cross section lines by using the ISurface interface to generate sections, implementing flushes and siltation analysis by copulating the cross-sections' areas. The shape of cross-sections, extracted at different locations in the Yangtze River, according to the actual style of river potential evolution, react the river situation very well.

Key words cross-section, ArcEngine, cross-section analysis (Page:120)

Subsidence Monitoring Methods and Data Processing of Guangzhou Metro by LIU Jianting

Abstract The ground subsidence observation is the most important thing for the safety of subway construction. The surveying data can evaluate the construction impact on the ground surface and the environment. The topics discussed in this paper included the method of subsidence observation used in Guangzhou subway construction, the data processing of subsidence observation and the deformation analysis for ground and buildings affected by the mentioned construction. The paper also gave a way to forecast the deformation value.

Key words subsidence observation, DSZ precise level, data processing, statistical analysis (Page:122)

MapGIS Second Development to Solve the Second Survey of Ownership Knee Moving Problems by HE Qihua

Abstract This paper instructed using Visual Basic(VB) 6.0 based on MapGIS-SDK 6.7 to do second development to develop more suitable function for the instruction of the second survey database, which to make up for the shortage of the second Survey software in the instruction of database.

Key words second development, second survey, ownership (Page:125)

Teaching and Practice Reform of "Quantitative Remote Sensing" Course by CHEN Jian

Abstract According to the development characteristics of remote sensing professional and the specific situation of students in universities, this paper analysed quantitative remote sensing course based on the current situation to determine the course teaching outline and content. The teaching methods and means in practice of the course were summarized and discussed so that the course was adopt to China's remote sensing science and technology development and personnel training needs.

Key words quantitative remote sensing course, multimedia, heuristic teaching, project-based teaching (Page:127)

Discussion on the Construction of GIS Practice Base under University-Industry Cooperation for Local Colleges by ZHENG Chunyan

Abstract CEEUSRO is an important way to training GIS applied talents. Taken Jiaying University as an example, the paper analyzed the existing training modes of GIS talents based on CEEUSRO for local colleges. Aiming at these main problems for local colleges to establish practice base, some improvement measures were proposed.

Key words CEEUSRO practice base, GIS, local colleges, training mode (Page:130)

Construction and Research of Map Website of Hubei Province by LI Yongfeng

Abstract Map Website of Hubei Province provides a map service platform for public, and it is a promotion version based on the original dynamic electronic Map Website of Hubei Province. In this paper, the construction and research of Hubei Map Website was introduced. And we mainly discussed system function, system architecture and key technology of this website. In the end, we made an analysis and summarize of status and development for Hubei Map Website.

Key words Hubei Map Website, electronic map, tile, map publish, geographic information platform (Page:132)

South Tibet Toponym Proving National Ascription of Monba and Lhoba by LIAO Xiaoyun

Abstract After author conducted filler research on south Tibet toponyms in the Map of China and raised the number of south Tibet toponyms on map from the original 9 to 36, according to the characteristic that the names of Lhoba and Monba coinciding with the toponyms of residence, and the Lhoba language meaning of south Tibet toponym 'Pasighat' coinciding with the Tibet meaning of Sichuan toponym 'Zhaxika', we demonstrated the close connection between the two national minorities and mainland together with south Tibet in cultural geography, and further explained people of Lhoba and Monba living in the south Tibet areas for generations are not trans-border ethnic people in this paper.

Key words south Tibet, toponym, Monba, Lhoba, ascription (Page:136)

Characteristics of Compilation of Atlas of Fujian Provincial Administrative Divisions by DAI Jiping

Abstract Material usage, content selection and symbol and color design of Atlas of Fujian Provincial Administrative were discussed and analyzed in this paper, which can stress the subject of administrative divisions.

Key words administrative divisions, features, symbol (Page:142)

Implementation of User Information Custom Service in Personalized Electronic Map by FAN Baomei

Abstract The paper described key technologies and implementation methods of user information custom service in electronic map in details, from the aspect of information classification, data mining and map marker adding, and designed and realized the function modules in implements.

Key words personalization, electronic map, information custom (Page:144)

Design and Compilation of Henan Province City-County Administrative Boundary Atlas by YANG Xiaochao

Abstract The Atlas of County-city Boundary in Henan Province contains zonal maps based on materials of administrative boundary survey agreement (attached maps, agreements, and boundary post coordinates). This paper introduced basic layouts, contents and features of this atlas which was followed by technical flow and requirements. We also discussed major technical problems in the map compilation. The importance of this work was summarized as well.

Key words administrative regions at city-county level, detailed boundary atlas, zonal topological maps, printing (Page:147)

Design and Implementation of Web Thematic Atlas Based on XML by ZENG Xingguo

Abstract Thematic atlas is a collection of relative maps which reflect the statistic data about natural resources, social economy, develop planning etc of a specific area. Publishing thematic atlas in web Environment will acquaint the masses get more information from the thematic atlas services, which means a lot. However, there existed some problems in online thematic atlas such as the organization of structure, the representation of maps, and the retardation of thematic data update. To solve these problems, this paper created the concept of dynamic online atlas, taking use of the technology as xml, experts designing, real time map producing and the result is approved by experiment.

Key words thematic atlas, thematic map update, experts design, online dynamic atlas, online map representation (Page:150)