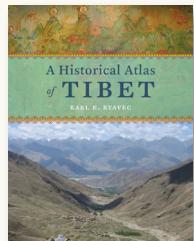


employment of a multi-cultural team, are revealed to be effective yet time consuming. However, overcoming a reliance on GPS data extraction by using a paper map and pen could enhance error propagation.

The author makes understandable and coherent the dilemma of how to classify and measure mixed-use spaces, as well as how she overcame it. She also discusses the biases in measuring both the surface area occupied per vendor and the number of entrepreneurs, due to the over- and undercounting of both variables. Her explanations further clarify analysis of the results and strengthen the argument for her choices.

As a final verdict, this book may become an essential reading when analyzing public spaces. Every chapter of the book introduces an important step for their analysis, whether the subject is sidewalk living areas or public spaces at another scale. It is important to understand the connection people have to the space and place itself, in order to create bottom-up policies and regulations that fulfill the population's needs. Mitigating gaps among social groups requires creating links between policy makers, authorities, and these social groups.

A HISTORICAL ATLAS OF TIBET



by Karl E. Ryavec

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Review by: Mark Denil

Tibet is one of those places that conjures visions of the sublime; the so-called “roof of the world”: remote, insular, hermetic, forbidding (and forbidden), mystic, magical, and far, far away. For many, it is the land of the Lost Horizon of *Shangri-la* (that Hugh Conway first fled, then sought to re-find), or of *Khor-Biyong* (where Tintin found refuge), while for others it may be the terrestrial kingdom of the exiled Dalai Lama, or perhaps the locale of the northern half of that peak in the Mahalangur mountain range known as Chomolungma, where, in 1924, George Mallory and Andrew Irvine disappeared into the clouds. Whatever else it is, it is an area that has seen tens of thousands of years of human habitation; an area that has nurtured native cultures, and has absorbed and changed invasive ones. It has been a crossroads of trade and a wellspring of spirituality, and it has been both the seat of some empires and the back-country hinterland of others.

Two things, however, that Tibet has hitherto lacked have been a seacoast and a historical atlas. While there seems little prospect for the former, Karel R. Ryavec, of the University of California, Merced, has toiled for

twenty years to supply us with the latter. Thus, in 2015, the University of Chicago Press presented us with the fruit of that labor: Ryavec's *A Historical Atlas of Tibet*.

The volume itself is a typical University of Chicago Press product: smooth, high-quality pages firmly bound between solid boards covered with green cloth, and sporting a matte-finish dust cover. Internally, it is organized around its 49 constituent maps, grouped into six sets or parts, and each map is supported by an expository chapter.

The *Introduction* contains eight maps that focus on general cultural, geographic, and other overview topics.

Part 1: *The prehistorical and ancient periods, circa 30,000 BCE to 600 CE*, is concerned with the earliest and least well-known time periods. It has only two maps.

Part 2: *The Imperial Period, circa 600–900* represents the first records of Tibetan governance events. Four maps cover this period.

The largest group of maps is found in Part 3: *The Period of Disunion, circa 900–1642*; here the turmoils and travails of over 700 years fill 18 maps.

Part 4, which follows, is also a sizable block: this time of 13 maps. These cover what is called *The Ganden Podrang Period (Kingdom of the Dalai Lamas)*, some (but not all) maps of which bring us up to about 1959.

The four maps of the *Conclusion* wrap up with Tibet's resources, land cover, population and the current administrative situation as of the year 2000.

The atlas opens with a brief *Preface*, some *Notes on [the] Gazetteer: Phonetic and Literary Romanization*, and *A Note on Sources*, and then closes with some *Acknowledgments*, a list of *Historical Photograph Sources*, and an *Index*.

The Preface is especially interesting, in that it sets the stage for understanding how this atlas came to be, and why it likely is the way it is. Rayvec gives a nod to a small troop of predecessors who, over the years, have included Tibet in their own atlases; usually as "merely peripheral to Asia's large sedentary agricultural civilizations" (xiii), but he then goes on to tell us how the "spontaneous" idea of this atlas came to him at a scholarly meeting in 2005. His timeline is a tad obscure, but I make it out that he counts his "twelve years of research and eight years of mapmaking" from 1993, when he first began building the databases that eventually became the source for his 49 maps. It was that decision in 2005, however, and "the feeling that there was no time to waste, [that] partly explains why this historical atlas of Tibet is an independent work of one scholar and not a large project with an editorial board and armies of cartographers" (xiii) In fact, except for Nicolas Tournadre, who is listed as a (lead?) collaborator on Map 7 *The Tibetic languages*, there is no other name associated with this atlas: no editor, no photo editor, no assistant cartographer; no one. That happenstance, coupled with the casual remarks in the Preface, might give one pause, and raise some nagging questions about the author and his spare-time atlas project.

It turns out, though, that the breezy narration in the Preface is not a red flag. A read through the *Acknowledgments*, which in this instance is not the usual banal blather one tends find under that heading, but a tremendously detailed account of the author / cartographer's path to placing this volume in your hands, will put those qualms to rest.

This is a serious work, albeit a very personal and idiosyncratic one, and the reader comes gradually to the realization that while its strengths are bound up with, and may in many instances be identical with, its weaknesses, these selfsame strengths and weaknesses form a dynamic and forceful whole that stands on its own and commands our respect.

GENERAL REMARKS

Much of the attention given *A Historical Atlas of Tibet* focuses on its pioneering position, as it brings together, for the first time in a geographic context, the historical and cultural transformations of Tibet since the Paleolithic period; but its "first effort" status is hardly the end of the story. The breadth of this atlas' appeal, and its utility to readers ranging from neophyte to student to expert, is not solely grounded on a dearth of competitors. *A Historical Atlas of Tibet* establishes an overarching four-dimensional framework into which the oftentimes fragmentary, disjointed, and sketchy facts and evidence that makes up so much of Tibetan history can be fitted and understood. It is sure to have a long-term importance and influence, and it is quite sufficiently solidly founded to support that task.

There is a lot to like about this atlas, though there are a few things one might wish were more likable.

THE MAPS

Two-thirds of the forty-nine maps are on the same hypsometric base, with the rest (a variety of maps that include cultivated areas, land use, travel times, and monastic establishment density) based on simple line work. The hypsometry base is divided into three elevation steps, plus a glacier/snow color within the highest elevation class, and is overlaid by a well-modulated greyscale hillshade. The hypsometric classing places both the high Himalayas and the vast Tibetan Plateau in the highest range, which, it seems to me, tends to level things out rather too much; another class break at about 6600 meters might have been useful in better characterizing the topography. That said, I also know from experience just how difficult this part of the world is to map at small scale: there is so much dramatic variation in such a complex configuration of ridges and valleys, that one is driven to extremes of generalization in an attempt to balance conveying the extremes of elevation and the nuanced ruggedness of the terrain with the need to also place coherent and readable text and thematic information on the map. Ryavec has found a balance that he has been able to stick to right through the atlas, and if his solution seems a bit over-generalized, especially in some of the larger scale maps, it would be simply ill-mannered and hubristic to fault it. I am planning to quibble with a lot of cartographic decisions in this atlas, but this big one gets a pass.

Taking Map 3: *Major regions and natural features of Tibet* as an example for general quibbling, one actually finds very little to grouse about on the map itself. There are occasional collisions between labels and the graticule (other maps in the atlas have more obvious and annoying examples of this), but the graticule itself has a well-chosen line weight and is very gracefully labeled. There is a varied and nuanced typographic hierarchy: unfortunately, it is nowhere explained (except rather incompletely and obscurely, on Map 8). In some cases the type associations seem obvious, in other instances they are less so (particularly for a non-Tibetanist like your reviewer). There is, for example, a bit of ambiguity between extra-Tibetan national and Chinese provincial names: while the (non-letterspaced) label “CHINA” is slightly larger than provincial names like “YUNNAN”, the national name “BURMA” (just over an inch from “YUNNAN”) is the same size, color and face as that provincial name. Mixed case for provinces may have alleviated this confusion.

It is a bit of a surprise to discover, in the upper left corner of Map 3, the label “RUSSIAN EMPIRE.” Determined searching finally turns up the note at the end of the entry in a one line legend in the lowest-left corner of the map: “Major Polity Boundary/Frontier c.1900.” Why is this critical bit of temporal / contextual information buried like that? Similarly, we know (admittedly, from reading this atlas) that the north-eastern Tibetan region of Amdo has only relatively recently acquired that name: why is it labeled Amdo in 1900?

The dashed line showing Major Polity Boundary/Frontiers, circa 1900, falls victim to one of the recurrent bugbears of digital cartography: there is a feature complexity threshold beyond which the dashed line symbol no longer does its job. If we look at the China / Burma border, we see the gestalt of the dashed line break down completely: near the neatline the linear dashes become just a stack of *parallel* line segments. Selective, judicious, manual feature generalization, or a different symbol, are the only solutions I know to this problem. The Afghanistan border on this map, too, by the way, clearly suffers from doubled polygon outlines.

Speaking of lines, why are there no generalized boundaries on this map for the high-level Tibetan regions on this map? Four pages further on, the small Map 4 of *Tibetan macroregions* has these lines, while Map 24, *Ngari circa 1250–1365: Yatse–Guntang rivalry during the Mongol*

Empire Period, demonstrates an understandable manner for showing such approximate frontiers.

The most egregious atlas-wide map problem, however, concerns inset textual information and/or map furniture. GIS software is really good at making boxes around legends, scale bars, and notes; around almost anything, in fact. The author has indulged this predilection to excess. Every little thematic group of symbols has its own legend in its own tight little white box surrounded by a little black line. This practice does provide a certain flexibility: the map author can scatter or group these boxes as he pleases in places that, for a given map, are innocuous or advantageous. Sadly, the advantages of modularity do not trump the ugliness and clunkiness of the horrid little boxes themselves.

When I was a young lad studying cartography at the College of Geographic Sciences (COGS), we were taught about Newman Bumstead of National Geographic, and about Bumstead’s Laws:

- the space between the words must be visibly greater than the space between the letters.
- the space between the lines must be visibly greater than the space between the words.
- the space between a block of text and anything else must be visibly greater than the space between the lines.

These rules can be usefully violated, but there must be a good reason and it must be gracefully done.

Mr. Ryavec’s little boxes are an excellent demonstration of what happens when you ignore Mr. Bumstead’s advice. The Bumstead violations rampant in these little boxes render them cramped, ugly, inefficient, and an impediment to map reading. Where the boxes are grouped (sometimes more, and sometimes less, logically), the internal dividing lines create little tessellated tilings; where they are separated by space, the eye must wander about the page in hopes of hitting on one, with little indication if it is the one sought until it has been read through. Certainly, several of the atlas maps have a great deal of information (often place lists) imposed on the map face: that is all the more reason to open things up a bit. Using plain, un-outlined white patches (polygons, but not necessarily rectangles) with a bit of breathing room around the outside and some structured whitespace to organize them internally

would be a step forward. It is notable that some of the larger scale maps, such as Map 32 *Amdo circa 1368–1644: Local monastic powers in relation to China's Ming Dynasty*, manage to have scale bars and some supporting text sans boxes, despite having boxes for the thematic and standard elevation legends.

Map 8: *How to use this atlas: Map coverage and cartographic conventions*, a two color map (black and blue), is the only source of extents for the various maps in the atlas, besides being a place and feature name reference unencumbered by topography. It is a very useful map. Using only two colors, however, it is less usable than it might be. The base map is admirably clear and readable, but, being overlaid with map extent rectangles also in black, and, using the same line types and weights as the base map features, the map is unnecessarily confused and confusing. The labels for the extent rectangles are not easily distinguishable from the other annotation, either. Color for the map extent information might seem a logical tactic. One also wonders why this useful map is buried on pages 30–31: this makes it hard to find when using the atlas, and, as there are no key maps anywhere else in the volume, finding this map while not losing one's reading place is not an infrequent task.

THE TEXT

The first section in any atlas is concerned largely with scene setting: naming, describing, and arraigning the stage upon which the (in this case historical) narrative will play out. Ryavec takes on a formidable task in trying to provide a physical and ethnographic description of the area while simultaneously introducing an understandable structure for Tibetan history. The result is a less-than-happy balance; one is left with a very muddled picture of the land, its people, and its history, which results in a somewhat discouraging start. Throughout the atlas, the narrative lacks continuity: often names, places, religious sects, and other things are mentioned in passing as significant, but we only learn later (sometimes much later) what that period, place,

or thing actually was. For example: an Imperial Period is mentioned early on page 8, but it is not mentioned again until near the end of page 15, where we learn that it started in the seventh century and (if the Tibetan Empire that apparently fell in the ninth century is identical, as is perhaps likely but not explicitly stated) we also learn how long it lasted. This example is typical of the way the narration seems to careen about from fact to fact, an impression exacerbated by the almost random paragraphing, frequently clumsy explanations, and the occasional loose splinter of sentence fragment.

I don't doubt Ryavec's facts, and I note that he does mention in the *Acknowledgments* having circulated his text amongst his colleagues for review. Nonetheless, a copyeditor is sorely missed. It is likely that such a luxury was beyond the means the author's limited project resources, and it would be churlish to condemn the atlas for not being as highly polished as "if seven maids with seven mops / Swept it for half a year" (to borrow from Lewis Carroll's 1872 poem, *The Walrus and The Carpenter*). Contrary-wise, I would myself be remiss to review this work and take no notice of its finish.

CONCLUSION

As I remarked earlier, *A Historical Atlas of Tibet* is a serious and important work, albeit a very personal and idiosyncratic one. It is important in itself as a scholarly work, and it is important for being a pioneering effort. It is a substantial achievement in its field, and it is a tremendously impressive product for a lone researcher and cartographer. The author, who labored alone 20 years to bring us this atlas, and himself expresses the wish he had another couple decades to put into it, has presented us with a real gem. Similarly, we in our turn can hope that this jewel becomes the seed from which even more ambitious and comprehensive Tibetan atlases may grow under the hand or guidance of Karl Ryavac. Neither wish diminishes the value of this atlas. Go buy one.