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## Notes and Comments

### The 'Zones' of Batangas

GLENN A. MAY

A good deal was said and written at the turn of the century, and much has been written since, about the U.S. Army's campaign in Batangas during the final phase of the Philippine-American War. Faced with a determined guerrilla resistance led by Miguel Malvar in Batangas and neighbouring provinces, Brigadier-General J. Franklin Bell, the U.S. commander in the region, adopted extraordinary measures, including the introduction in December 1901 of the so-called "concentration" policy. Bell's policy, similar in concept to that employed by the British during the Boer War and also to that of General Valeriano Weyler in Cuba, was designed to isolate the guerrillas who were harassing the U.S. Army from the noncombatants who were supplying and otherwise assisting the guerrillas. Bell ordered noncombatants to enter "zones," designated areas in designated towns where they were required to remain so long as the fighting continued. In Batangas, the civilian population actually lived in the zones from late December 1901 until the end of April 1902. Outside the zones, American soldiers arrested any Filipinos they encountered, and either confiscated or destroyed all food and supplies. Ultimately, Bell's policy proved successful, for after a few months Malvar's troops were short of supplies, and by mid-April 1902, most of the Filipino army in that region had surrendered.<sup>1</sup> But what had been the human cost?

1. For an account of Bell's campaign, see Glenn A. May, "Filipino Resistance to American Occupation: Batangas, 1899-1902," *Pacific Historical Review* 48 (November 1979): 531-56.

How many Batangueños — and particularly, how many noncombatants — had died in that campaign?

# I

At the time, a number of anti-imperialists and other critics of the war in the Philippines charged that conditions in the zones had been dreadful and that as a consequence the level of mortality had been very high. In May 1902, one such critic, Senator A.O. Bacon of Georgia, read on the Senate floor a letter from an American army officer who claimed that a "corpse-carcass stench" filled the air in the zones, and that "at nightfall clouds of vampire bats softly [swirled] out in their orgies over the dead."<sup>2</sup> Shortly afterward, Colonel Arthur Wagner, who had actually inspected two concentration camps in Batangas, denied that there had been an inordinately high level of mortality in them.<sup>3</sup> Still, doubts remained. The U.S. Coast and Geodetic Survey Atlas of the Philippines, published in 1899, set the population of Batangas at 312,192; the first American census of the archipelago, conducted in 1902-1903, showed that the population of the province was only 257,715.<sup>4</sup> What had happened to those people?

The U.S. Army's official historian of the Philippine-American War, John R.M. Taylor, did not himself harbor such doubts. In his five-volume study, *The Philippine Insurrection Against the United States*, he defended Bell's actions in Batangas and asserted that conditions in the zones had been far from dreadful:

No one died of starvation within these districts, although some 300,000 people were at one time gathered within them; nor is there any reason to believe that anyone experienced serious hunger. The most serious discomfort experienced by anyone within these areas was caused to the mestizo ruling group, whose members bitterly resented the blow to their

2. James H. Blount, *The American Occupation of the Philippines, 1898-1912* (New York: G.P. Putnam's Sons, 1913), p. 393. On the anti-imperialists, see for example Daniel B. Schirmer, *Republic or Empire: American Resistance to the Philippine War* (Cambridge, Mass: Schenkman Publishing Company, 1972), pp. 237-39, and Richard E. Welch Jr., *Response to Imperialism: The United States and The Philippine-American War, 1899-1902* (Chapel Hill, N.C.: University of North Carolina Press, 1979), pp. 138-39.

3. U.S., Congress, Senate, Committee on the Philippines, *Hearings: Affairs in the Philippine Islands*, S. Doc. 331, 57th Cong. 1st sess., 1902, 3:2846-80.

4. Blount, *American Occupation*, p. 384; U.S., Bureau of the Census, *Census of the Philippine Islands: 1903*, 2:123.

prestige in being treated like everyone else.<sup>5</sup>

A few years later, James H. Blount, a former military officer and civilian official in the Philippines, also came to Bell's defense. The zones of Batangas were, according to Blount, "handled as efficiently as General Funston handled matters after the San Francisco fire. There was no starvation in those camps. . . The reconcentrado camps and the people in them were daily looked after by medical officers of the American Army." Responding specifically to the charge that many Batagueños had died in the zones, he maintained:

Nobody who was in the islands at the time. . . believes for a moment that any such conditions would have been tolerated under General Bell. General Bell has that aversion to either causing or witnessing needless suffering, which you almost invariably find in men who are both constitutionally brave and temperamentally generous and considerate of others.<sup>6</sup>

While Blount and Taylor seemed convinced, a number of Filipino scholars were not. Writing in the 1920's, the outspoken nationalist Teodoro M. Kalaw condemned Bell's campaign in Batangas:

Life in the zones was very hard for the poor *reconcentrados*. Their health was undermined by diseases. Absence from their farms deprived them of the bare necessities of life. According to official data, the death rate in Batangas during those months reached appalling figures.<sup>7</sup>

More recent accounts by Filipino historians — for example, those by Gregorio Zaide and Renato Constantino — essentially agreed with Kalaw's assessment.<sup>8</sup> So too did Leon Wolff, an American, who published a popular history of the Philippine-American War in 1961. "When one [sic] hundred thousand destitute natives poured into the designated areas," Wolff wrote,

Bell discovered that there was not enough food for them; and epidemics

5. John R.M. Taylor, *The Philippine Insurrection Against the United States: A Compilation of Documents with Notes and Introduction*, 5 vols. (Pasay City: Eugenio Lopez Foundation, 1971-73), 2:295. Taylor wrote his history immediately after the war, but it was not published until recently.

6. Blount, *American Occupation*, pp. 394, 396.

7. Teodoro M. Kalaw, *The Philippine Revolution* (1925; rept. ed., Mandaluyong: Jorge B. Vargas Filipiniana Foundation, 1969), p. 300.

8. Gregorio F. Zaide, *The Philippine Revolution* (Manila: Modern Book Co., 1968), p. 354; Renato Constantino, *The Philippines: A Past Revisited* (Quezon City: Tala Publishing Services, 1975), pp. 250-51.

broke out as they invariably do under such circumstances. By the end of the year, fifty-four thousand civilians had died in Batangas alone.<sup>9</sup>

The present writer, too, argued in a recent article that unhealthy conditions in the zones probably led to the death of thousands of Batangueños.<sup>10</sup>

But Bell still finds defenders. In a book published in 1973, John Morgan Gates described Bell's campaign in Batangas as "a credit to the American Army in the Philippines and a masterpiece of counter-guerrilla warfare." According to Gates, conditions in the zones were satisfactory:

Army physicians furnished medical care free of charge, and the public health measures undertaken in the zones resembled those in typical American garrison towns. Schools were also provided, and all the benevolent and humane actions that had characterized American operations in the Philippines since 1898 were evident in the zones of reconcentration.

Indeed, Gates even maintained that the benevolence of U.S. policies within the zones "worked to win popular support for the army."<sup>11</sup>

At this point it should be noted that neither Bell's defenders nor his critics have presented especially convincing evidence to substantiate their assertions. Taylor had access to a mountain of documents, but he was biased, and in any case, he provided no footnote citations. Blount relied on published records and hearsay. Kalaw provided no citations, nor did Wolff, whose book is marred throughout by gross factual errors. Zaide and Constantino cited only published sources. Gates, on his part, examined a large number of archival collections, including the Records of the Adjutant General's Office at the U.S. National Archives. However, he did not consult the largest single archival collection on American military operations in the Philippines, Record Group 395 (RG 395) in the U.S. National Archives, since at the time he was conducting his research those records had not yet been inventoried for use by researchers. Nor did he use any sources in the Philippines.

9. Leon Wolff, *Little Brown Brother: How the United States Purchased and Pacified the Philippine Islands at the Century's Turn* (Garden City, N.Y.: Doubleday & Company, 1961), p. 358.

10. May, "Filipino Resistance," pp. 531-36.

11. John Morgan Gates, *Schoolbooks and Krags: The United States Army in the Philippines, 1898-1902* (Westport, Conn.: Greenwood Press, 1973), pp. 260-63.

My own assertions about conditions in the zones were based, as well, on rather shaky foundations. For example, I cited the "Historical Data Papers" for the province of Batangas, a collection of local histories compiled by Filipino school teachers in the 1950's.<sup>12</sup> Many of these local histories contained information, derived largely from interviews with old people in the province, about conditions in the zones during the Philippine-American War; and the histories stated repeatedly that many people had died during the period of concentration. In addition, I had interviewed more than a dozen Batangueños who had lived through the Philippine-American War, and all had told me that a staggering number of people had died in the zones. But, the information derived from the "Historical Data Papers" and from my interviews must be viewed somewhat skeptically: old people sometimes embellish stories, or remember only a tiny fraction of the past, or confuse one event with another. (Indeed, one of my interviewees regularly confused the American-Philippine War with World War II.) In other words, the evidence I cited was not at all conclusive.

## II

Since completing that article, I have had an opportunity to examine additional sources. One collection, the aforementioned RG 395, proved to be curiously silent about conditions in the zones.<sup>13</sup> In the many files relating to the U.S. Army's campaigns in Batangas, there is hardly a hint that Batangueños were dying in the zones. To be sure, there are occasional indications that there were food shortages during the months of concentration.<sup>14</sup> In addition, there are reports by American commanders about the outbreak of cholera in the province and about the large number of deaths resulting from that disease, but such reports begin to appear only in June 1902 — that is, more than a month after the U.S. Army had abandoned the concentration policy and allowed

12. Historical Data Papers, Batangas, National Library of the Philippines, Manila.

13. In fact, I had looked at that collection hastily before writing the article, but since then I have had the opportunity to examine it systematically.

14. J.F. Bell to all Station Commanders, April 7, 1902, RG 395, File 4142. Another indication can be found in a published primary source: Senate, *Affairs*, 2:1633-35.

Batangueños to leave the zones.<sup>15</sup>

The silence of the documents about mortality during the period of concentration seems to be *prima facie* evidence that conditions in the zones were not atrocious. Perhaps, one might surmise, the decline in Batangas' population was due primarily to the effects of the cholera epidemic. But there are other possibilities. One is that U.S. commanders in Batangas covered up what was happening in the zones. Throughout the war, the reports of U.S. officers tended not to include mention of unsavoury aspects of the fighting, and it is not too farfetched to imagine that officers in Batangas might have chosen to be silent about high levels of civilian mortality in areas under their jurisdiction.<sup>16</sup> Another possibility – and one that gives the army officers the benefit of the doubt – is that they were so preoccupied with their efforts to subdue the guerrillas in the bush that they did not pay much attention to conditions in the zones.

If the U.S. Army's records are silent, parish records located in the province of Batangas are not. In many towns of the Philippines, and in virtually every one in Batangas, there are large collections of records, sometimes dating back to the early years of Spanish rule, relating to births, marriages, and burials within the parish. The *libros de entierros* – literally, the books of burials – were of greatest interest to me, since from them I hoped to learn about mortality levels during the months of concentration. For each entry in those books, the parish clerk recorded the name, age, and place of residence of the deceased, the name of the decedent's spouse, the dates of death and interment, and the cause of death.<sup>17</sup>

It should be recognized that some of the information contained in the *libros de entierros* is probably untrustworthy. Consider, for example, the data on cause of death. Since there were few physicians in Batangas in 1900, only a small percentage of the deceased could have received medical attention before expiring –

15. George L. Anderson to Adjutant General, Batangas, June 4 and June 16, 1902, RG 395, File 4134.

16. I have discussed such "cover-ups" in May, "Private Preshner and Sergeant Vergara: The 'Underside' of the Philippine-American War," forthcoming in a book edited by Peter W. Stanley on Philippine-American history.

17. For an excellent discussion of parish records in the Philippines, see Peter C. Smith, "Crisis Mortality in the Nineteenth Century Philippines: Data from Parish Records," *Journal of Asian Studies* 38 (November 1978): 51-76.

and hence, only those few could have received a physician's diagnosis of their maladies.<sup>18</sup> How did the parish clerk determine the cause of death for the others? Did he simply ask the decedent's family what had caused the death? Did he rely on the parish priest's assessment? Lacking a physician's professional opinion, he must have made mistakes. It should also be noted that the *libros de entierros* did not necessarily record all the deaths in the parish. Nonbelievers might not have recorded the death of a family member in the parish books. Furthermore, it seems likely that during those confused wartime years at the turn of the century (and at a time when, as we shall see, the level of mortality was very high), a number of burials might not have been recorded.

Those caveats notwithstanding, the parish records appear to tell us a good deal about conditions in the zones of Batangas during the Philippine-American War. They suggest strongly that the zones were unhealthy places to live and that the number of deaths was extraordinarily high during the months of concentration. But that is not all we learn from the parish records. They also show that after the Batangueños had left the zones, the mortality level became even higher. The cholera epidemic was responsible for a significant percentage of those later deaths, but other diseases evidently took an even greater toll.

### III

Table 1, based on the chronological entries in the *libros de entierros*, indicates the number of deaths, month by month, for the two parishes of Lipa and Batangas City during the period April 1901 – September 1902. At that time, Lipa had a population of approximately 40,000, and Batangas City of 33,000.<sup>19</sup> For the months April-December 1901 – that is, for the nine months preceding the establishment of the zones – an average of 148 people died per month in Lipa; and in Batangas City, the average was 108. (As in most years, the level of mortality was

18. According to one source, there were only six physicians in the province of Batangas in 1894. See Philippine Islands, *Guía oficial de las islas filipinas, 1894* (Manila: Secretaría del Gobierno del Archipiélago, 1894), p. 157a.

19. Manuel Sastron, *Batangas y su provincia* (Malabong: Asilo de Huerfanos de Malabong, 1895), pp. 37, 161; Bureau of the Census, *Census*, 2:128. Throughout this article, I refer to the capital of the province as Batangas City, its current name. In 1900, it was called simply Batangas. I use the current name in order to avoid confusion between the name of the town and that of the province.



considerably higher during the rainy season, especially in the June-August period, than during the rest of the year).<sup>20</sup> With the introduction of the concentration policy, the monthly death rate increased markedly. For the period January-April 1902, an average of 291 people died per month in Lipa, and in April alone, 558 died. In Batangas City, the average was 392 for that same four-month period.

**Table 1:** Number of Deaths in Lipa and Batangas City, by Month, April 1901 – September 1902.

Month	Lipa	Batangas City
April 1901	126	91
May 1901	136	87
June 1901	137	83
July 1901	231	183
August 1901	242	159
September 1901	154	109
October 1901	118	89
November 1901	106	95
December 1901	100	73
January 1902	158a	114
February 1902	183b	267
March 1902	266c	548
April 1902	558d	637
May 1902	762	315
June 1902	1329	333
July 1902	757	426
August 1902	446	208
September 1902	255	125

Compiled from *Libros de Entierros*, volumes 29-31, Lipa City Parish Archives, and *Libros de Entierros*, volumes D26 and D27, Batangas City Parish Archives.

<sup>a</sup>That is an adjusted figure. The parish records listed 180 deaths for that month; but that figure was inflated because the inhabitants of the neighbouring town, Rosario, were also confined in the zone of Lipa. Hence, I deducted the number of Rosario deaths (22).

<sup>b</sup>Adjusted figure: Rosario deaths (39) were deducted.

<sup>c</sup>Adjusted figure: Rosario deaths (158) were deducted.

<sup>d</sup>Adjusted figure: Rosario deaths (193) were deducted.

20. Smith, "Crisis Mortality," pp. 71-73.

A bit of simple arithmetic might drive home the point. The two following calculations attempt to determine how many "excess" (or abnormally high) deaths occurred in Lipa and Batangas City during the four months of concentration:

#### I. Lipa

Total number of deaths during concentration	= 1165
– Average monthly number of deaths for the previous 9-month period (148) multiplied by 4	= <u>592</u>
'Excess' number of deaths during concentration	= 573

#### II. Batangas City

Total number of deaths during concentration	= 1566
– Average monthly number of deaths for the previous 9-month period (108) multiplied by 4	= <u>432</u>
'Excess' number of deaths during concentration	= 1134

In all, therefore, the "excess" number of deaths in both Lipa and Batangas City during the period of concentration totalled 1707.

At this point, a few words of caution are called for. Statisticians would, perhaps, be dubious about the above computations. They might argue that we need far more data on the "normal" mortality level before we can determine exactly how abnormal the level was during the months of concentration.<sup>21</sup> It should be pointed out, as well, that I have provided data on only two parishes (out of more than twenty) in the province, and that it is possible the death rate in those two towns was atypically high. Finally, I should make clear that I am not claiming that conditions in the zones were alone responsible for the increase in mortality during the months January-April 1902. There is evidence that it was extremely cold in Batangas in February 1902; and such climatic conditions might have been responsible for a number of deaths.<sup>22</sup> Still, the data suggest, even though they do not conclusively prove,

21. In fact, I have accumulated some additional information on mortality in both Lipa and Batangas City, and that data (although it is still too sketchy to satisfy statisticians) appears to confirm the view that the level of mortality was abnormally high during the period of concentration. Hence, in Lipa, an average of 104 people died per month during the period July 1892-June 1893; and 187, during the period October 1902-September 1903. In Batangas City, an average of 99 people died per month during the period October 1902-September 1903. Sources: *Libros de Entierros*, volumes 23, 31, 32, Lipa City Parish Archives, and *Libros de Entierros*, volume D27, Batangas City Parish Archives.

22. Senate, *Affairs*, 3:2848.

that an episode of abnormally high mortality occurred during the period of concentration — that throughout the Province of Batangas several thousand more people died in those four months in the zones than would have normally died in a four-month period.

Why were so many people dying? To find an answer to that question, I examined the information provided by the parish clerks about causes of death. Table 2 summarizes the data for Batangas City during the catastrophic month of April 1902. In the majority of cases — 488 out of 637 — the stated cause of death was *calentura*, or fever. Indeed, if the parish records are to be believed, an overwhelming majority of the deaths in both Batangas City and Lipa during the entire period of concentration were due to that single cause. According to the parish records of Lipa, the only other noteworthy cause of death during those months was measles, which took 97 lives in April.<sup>23</sup>

**Table 2:** Causes of Death in Batangas City, April 1902.

Stated Cause of Death	Number of Victims
Fever	488
Epilepsy	68
Diarrhea	31
Dysentery	19
Tuberculosis	14
All Others (a)	17
Total	637

Compiled from *Libros de Entierros*, volume D26, Batangas City Parish Archives.

(a) Includes asthma, childbirth complications, beriberi, etc.

There is, however, a major problem with these data. Obviously, fever was not responsible for the death of so many Batangueños. As *Black's Medical Dictionary* tell us, fever is "one of the most common accompaniments of disease in general."<sup>24</sup> In other words,

23. Dysentery also claimed the lives of nineteen Lipeños in April 1902. See *Libros de Entierros*, volume 30, Lipa City Parish Archives.

24. William A.R. Thomson, *Black's Medical Dictionary*, 31st ed. (London: Adam and Charles Black, 1976), p. 342.

fever is only a symptom of a disease, not a disease itself. To learn what killed those 488 fever victims in Batangas City in April 1902, we must know what caused their fever. Were they suffering from diphtheria, or typhus, or typhoid fever, or scarlet fever, or perhaps a strain of influenza? All of those diseases and many more produce an abnormal elevation in temperature.

Still, based on what we know about the zones of Batangas and about medical science, we can make an educated guess about the reasons for the large number of fever deaths in Batangas. We know that Batangueños were crowded into the zones — that in the case of Batangas City, more than 30,000 people were living in an area that normally accommodated 3,000 — and that most of them took their pigs and other animals with them.<sup>25</sup> Since sanitary arrangements in the turn-of-the-century Philippines were inadequate in normal times, we can speculate that they were probably appalling during the months spent in the zones. In addition, we can assume, based on Bell's own despatches, that there were occasional shortages of food in the zones.<sup>26</sup> The crowding of the populace would certainly have contributed to the spread of disease. For example, influenza, caused by various viruses, is spread by human contact, and in the overcrowded zones, it would have been impossible to avoid contact.<sup>27</sup> (Thus, we can be reasonably certain that the large number of deaths in Lipa from measles — a disease that also is caused by a virus — was partly the result of crowded conditions in the zones).<sup>28</sup> Poor sanitary conditions would as well have led to an increased incidence of fever-producing diseases in the zones. Typhoid fever, for one, is normally spread by contaminated water or flies, and hence, the disease characteristically invades areas where sanitation is inadequate.<sup>29</sup> What is more, food shortages would have led to a higher incidence of disease, since if the people were undernourished, they would have been less resistant to infection.<sup>30</sup> Indeed, if the zones were overcrowded and unsanitary and if there were occasional food shortages, it is possible that several

25. Senate, *Affairs*, 3:2846-80.

26. See note 14.

27. Thomson, *Black's*, pp. 452-53.

28. On measles, see Thomson, *Black's*, pp. 539-41, and Peter Wingate, *The Penguin Medical Encyclopedia* (Middlesex, Eng.: Penguin Books, 1972), pp. 267-68.

29. Thomson, *Black's*, p. 303; Wingate, *Penguin*, p. 437.

30. Wingate, *Penguin*, p. 395.

different diseases broke out simultaneously in the province.

There is another curiosity about the data on causes of death. Table 2 indicates that sixty-eight people died of epilepsy in Batangas City in April 1902. That figure appears to be extraordinarily high; epilepsy, particularly the *grand mal* variety, is a serious nervous disorder, but it infrequently causes death. One wonders whether the parish clerk was again confusing a symptom with a disease. *Black's Medical Dictionary* tells us that the onset of fever is usually marked by shivering, and that in the case of children, the shivering can take the form of convulsions.<sup>31</sup> It seems likely that most of those sixty-eight apparent epileptics were in fact suffering from fever-producing diseases.

Thus, while the parish records cannot definitely answer all our questions about life and death in the zones, they indicate that mortality was abnormally high during the final stages of concentration. Furthermore, while it is doubtful that we will ever be certain what maladies took the greatest toll, it is certain that contagious disease was widespread and it is likely that conditions in the zones contributed to the spread of disease.

#### IV

The end of concentration did not end the episode of abnormally high mortality in Batangas. In fact, another glance at Table 1 reveals that in Lipa the number of deaths increased sharply in May and June, and that in Batangas City the level of mortality remained high through July. What caused those deaths?

The parish records are of some help in answering this question. Table 3 summarizes the data on causes of death in Lipa for the month of June 1902, when 1329 Lipeños (approximately 3 percent of the town's population) died. Clearly, cholera accounted for a large number of deaths (202). Just as clearly, cholera was only one of a number of serious diseases that felled the people of Lipa: the combined total of deaths resulting from dysentery, malaria, and measles was 365. The parish records also tell us that the most potent killer of Lipeños in that month was *calentura*, and once again, we cannot be sure about what diseases actually caused those deaths. But, in any case, it seems improbable that the parish

31. On epilepsy, see Thomson, *Black's*, pp. 308-11; and on shivering as a characteristic of fever, see *ibid.*, p. 343.

clerk or the families of the deceased confused *calentura* with cholera, since the latter disease has distinctive symptoms – notably, violent diarrhea, agonizing cramps, constant thirst, and loss of voice.<sup>32</sup> In Batangas City, too, cholera took a significant toll (87 in June 1902), but as in Lipa, other diseases killed more people.<sup>33</sup>

**Table 3:** Causes of Death in Lipa, June 1902

Stated Cause of Death	Number of Victims
Fever	550
Cholera	202
Dysentery	144
Measles	121
Malaria	100
All others <sup>a</sup>	212
Total	1329

Compiled from *Libros de Entierros*, volume 31, Lipa City Parish Archives.

(a) Includes tuberculosis, epilepsy, asthma, etc.

Why did Batangas remain so unhealthy in the months after the dissolution of the zones? Perhaps the most likely explanation is that the high incidence of disease resulted to a considerable extent from the policy of concentration. Let us consider the disease of dysentery. The parish records tell us that dysentery caused the death of 52 Lipeños in May 1902, 144 in June, 129 in July, and 104 in August.<sup>34</sup> The records do not indicate if the victims were suffering from amoebic or bacillary dysentery, but in any case, both are spread by similar agents – that is, by flies, contaminated water, and uncooked vegetables.<sup>35</sup> If extremely unsanitary conditions prevailed during the months of concentration, it is doubtful that they would have been eliminated overnight. And if those conditions were responsible for the spread of dysentery, it would follow that Bell's policy must take some of the blame for the

32. Thomson, *Black's*, pp. 184-86; Wingate, *Penguin*, p. 96.

33. *Libros de Entierros*, volumes D26, D27, Batangas City Parish Archives.

34. *Libros de Entierros*, volumes 30, 31, Lipa City Parish Archives.

35. Thomson, *Black's*, pp. 278-79; Wingate, *Penguin*, pp. 137-39.

large number of dysentery deaths in the months following concentration.

In fact, if the policy of concentration was responsible for poor sanitary conditions, it might also have contributed to the spread of cholera in the province. Like dysentery, cholera is typically transmitted by contaminated water and flies, and also like dysentery, it tends to invade areas in which sanitary arrangements are inadequate.<sup>36</sup>

It is possible as well that the large number of deaths from measles was due in part to the policy of concentration. Measles had already claimed several hundred lives in Lipa by April, and no doubt the virus had spread quickly because the people were crowded together in the zones. One might reasonably argue that the virus would not have infected so many people in the period after concentration if the spread of infection had not been facilitated by overcrowding during concentration. What is more, it is certain that many of those who died from measles in May 1902 had actually contracted the illness during their period of confinement in the zones.<sup>37</sup> That assertion is based on what we know about the characteristics of the disease. First of all, the period of incubation for measles is generally ten to fourteen days; consequently virtually everyone who died from the disease before 15 May must have caught it in the zones. In addition, death from measles generally results from complications (e.g. bronchitis, pneumonia) which arise several days after the first manifestation of the illness; hence, some of those who died in late May, or even in June, had in fact been infected during the period of concentration.<sup>38</sup>

The policy of concentration might also have contributed to the large number of deaths from malaria. (To be sure, malaria is more likely to occur during the summer months; so, an increase in the number of malaria deaths in June and July would not have been surprising. However, the 100 malaria deaths that occurred

36. Thomson, *Black's*, pp. 184-86; Wingate, *Penguin*, p. 96.

37. The parish records indicate that in May 1902 (as in June), 121 people died from measles in Lipa. Source: *Libros de Entierros*, volumes 30, 31, Lipa City Parish Archives.

38. On the characteristics of measles, see Thomson, *Black's*, pp. 539-41; Wingate, *Penguin*, pp. 267-68.

in Lipa in June 1902 were definitely out of the ordinary).<sup>39</sup> Malaria is spread by the anopheles mosquito, which thrives in swamps, pools of surface water, and lush vegetation.<sup>40</sup> While the people of Batangas were confined in the zones, most of them were unable to cultivate their agricultural properties, and the land doubtless became overrun with cogon and other vegetation in which the anopheles mosquito could live and multiply. To make matters worse, an epidemic of rinderpest had destroyed most of the carabaos in the Philippines, and as a result, even after Batangueños were freed from the zones, they were able to cultivate only a small part of the arable land.<sup>41</sup>

Finally, the zones might also have been responsible for many of the deaths attributed by the parish clerk to *calentura*. If sanitary arrangements remained deficient after the dissolution of the zones, some of those apparent *calentura* victims might actually have been suffering from typhoid fever.

## V

"It was terrible in the zones," Calixto Silva, an old resident of Lipa who had spent four months in one of them, told me. "So many people died."<sup>42</sup> The parish records indicate that Silva was telling the truth. The level of mortality was abnormally high during the period of concentration, probably because conditions within the zones were unhealthy. Furthermore, it remained high for several months afterward, not only because a cholera epidemic broke out but also because the unhealthy conditions created by the policy of concentration did not immediately improve. It is impossible to calculate exactly how many Batangueños died as a result of the policy, and it would be unfair to hold Bell responsible for all the deaths that occurred during that episode of abnormally high mortality. But, it is clear that the policy, and the zones of Batangas, took a substantial toll.

39. In June 1903, there were 33 deaths from malaria in Lipa; in July 1903, 39; and in August 1903, 20. Source: *Libros de Entierros*, volumes 30, 31, Lipa City Parish Archives.

40. Thomson, *Black's*, pp. 530-34; Wingate, *Penguin*, pp. 263-64.

41. On rinderpest, see U.S., War Dept., *Annual Reports of the War Department for the Fiscal Year Ended June 30, 1902*, 9:273.

42. Interview with Calixto Silva, Lipa, July 27, 1976.