

A City With a View: The Afforestation of the Delhi Ridge, 1883–1913

MICHAEL MANN and SAMIKSHA SEHRAWAT

FernUniversität in Hagen and University of Strathclyde

Abstract

Despite the contemporary importance of the Ridge forest to the city of Delhi as its most important ‘green lung’, the concept of urban forestry has been explored neither by urban historians studying Delhi nor by environmental historians. This article places the colonial efforts to plant a forest on the Delhi Ridge from 1883 to 1913 within the context of the gradual deforestation of the countryside around Delhi and the local colonial administration’s preoccupation with encouraging arboriculture. This project of colonial forestry prioritized the needs of the white colonizers living in Delhi, while coming into conflict repeatedly with indigenous peasants. With the decision to transfer the capital to Delhi in 1911, the afforestation of the Delhi Ridge received a further stimulus. Town planners’ visions of a building the capital city of New Delhi were meant to assert the grandeur of British rule through imposing buildings, with the permanence of the British in India being emphasised by the strategic location of the ruins of earlier empires within the city. The principles of English landscape gardening inspired the planning of New Delhi, with the afforestation of the Delhi Ridge being undertaken to provide a verdant backdrop for—the Government House and the Secretariat—the administrative centre of British government in India. Imperial notions of landscaping, which were central to the afforestation of the Delhi Ridge epitomised colonial rule and marginalized Indians.

Keywords: arboriculture, afforestation, Delhi, urban history, environmental history, Ridge forest, landscape gardening, urban forestry, public policy, urban villages, imperial town planning.

Introduction

Coming into Delhi by aircraft from an eastward direction on a day of good visibility, two distinct features of Delhi’s topography can be clearly identified—the Yamuna River running from north to south and the Delhi Ridge with the biggest broad green belt within the city. Together, the ridge and the river constitute three sides of the

so-called 'Delhi Triangle' which spans over 90 square kilometres. From the earliest days of migration to and settlement on the Indian subcontinent, this triangle has possessed a very prominent strategic, logistic and economic position in upper India since it connects the two great sub-Himalayan river systems—of the *panjab* (with the Indus and the Sutlej as its two major rivers) and the *doab* (the Ganges being the main river) with their numerous tributaries. For these reasons, the Delhi area is one of the oldest as well as one of the most densely inhabited places in India.¹

The Delhi Ridge is part of the hilly tracts of the region, which are the north-western tip of the Aravalli Range.² The Aravallis enter Delhi from Gurgaon and expand into a rocky tableland of about 5 kilometres in breadth, and then extend to the Yamuna in a north-easterly direction.³ A word about nomenclature is important here. The contemporary administration has divided the Delhi Ridge into four sections (see Map 3): the Northern Ridge, located north of the walled city of former Shahjahanabad ('Old Delhi'), the Central Ridge which lies north of Dhaula Kuan and west of New Delhi's government area, the South-Central Ridge in the Mehrauli area and, finally, the Southern Ridge which is situated outside the present-day city limits. Afforestation was undertaken in only two of these sections between 1883 and 1913—on the 'Northern Ridge' and what was then called the 'Southern Ridge' (known today as the 'Central Ridge').⁴ This essay will use the terminology extant during the time period referred to, and discuss the afforestation of the Northern and the Southern Ridge. The Northern Ridge forest is spread over 87 hectares and the New Delhi Ridge forest covers 864 hectares. They play a very important role as the 'green lungs' of the city today. Out of Delhi's total urban area of 44,777 hectares, 8,422 hectares has been marked for 'Greens' in the Master Plan Document 2001. The environmental policy followed by

¹ For a brief overview, see Stephen Blake, *Shahjahanabad: The Sovereign City in Mughal India, 1639–1739* (Cambridge: Cambridge University Press, 1991), esp. pp. 5–17. For a more detailed account see Y. D. Sharma, *Delhi and Its Neighbourhood* (New Delhi, Archaeological Survey of India, 1974).

² The Aravallis belong to the oldest mountain ranges on the Indian subcontinent starting in present-day Gujarat, Mount Abu being one of its most well-known mountains in Rajasthan.

³ Ujagir Singh, 'New Delhi: Its Site and Situation', *National Geographical Journal of India*, 4 (1959).

⁴ The Northern Ridge was also referred to as the 'Old Delhi Ridge', and the 'Southern Ridge' was also called the 'New Delhi Ridge' after the new capital city which was founded near it, and which played a very important role in its afforestation.

the post-colonial government in contemporary Delhi has expanded to span over several categories of 'green areas' such as regional, district and neighbourhood parks, city forests, historical landscapes, sports complexes, landmark greens and green belts.⁵ Yet, the roots of the present ecological policy and urban forestry in Delhi go back to the late nineteenth-century colonial arboriculture efforts, of which the planting of the Ridge was one of the first major projects in Delhi.

Despite the importance of these environmental factors in its settlement history, Delhi's environmental history has not been explored. The greening of urban environments has traditionally been the domain not of forestry but of arboriculture and horticulture. However, in the second half of the twentieth century, the concept of urban forestry evolved in response to the unprecedented scale of urbanization. Developed initially in North America in the 1960s, urban forestry has found increasing acceptance in Europe in the 1990s, and aims at 'the integrated planning and management of all tree-based resources in cities and towns'.⁶ This has resulted in an impetus to research addressing various aspects of urban forestry, such as the composition of urban forests, their importance in reducing pollution and providing recreational areas, the significance of ruderal vegetation and indigenous tree species in these urban forests, etc. However, this literature barely touches upon the *history* of urban forests, generally as prefatory remarks to research on contemporary urban forestry. On the other hand, urban history has remained oblivious to this growing interest in urban forestry despite its importance for urban environments while environmental history has tended to concentrate on traditional forests in agrarian/rural/tribal environments. Although the agenda for urban environmental history was declared with much fanfare in the 1990s, with intentions to study the impact of cities on the natural environment, the impact of the natural environment on cities and the response to urban environmental changes and to problems of the urban environment, it has stayed almost a fringe concern within urban history.⁷ The themes explored by environmental history cover a

⁵ <http://www.dddelhi.com/greens/environment.htm>, accessed on 10 January 2005.

⁶ Cecil C. Konijnendijk, 'A Decade of Urban Forestry in Europe', *Forest Policy and Economics*, 5 (2003), 173.

⁷ For an outline of developments in urban environmental history, see Kathleen A Brosnan, 'Effluence, Affluence, and the Maturing of Urban Environmental History', *Journal of Urban History*, 31 (2004). The May 1994 issue of the *Journal of Urban History* sought to set the agenda for urban environmental history and carried several articles

large range of themes, including urban sanitation systems, pollution, the impact of land development and the history of urban planning, but have so far not addressed the history of urban forests.

This essay will address this lacuna by charting the early history of the afforestation of the Delhi Ridge in colonial times over two decades from 1883 to 1913. Initially, this afforestation was a part of arboriculture undertaken by the colonial district administration that included the planting of ornamental gardens, nurseries, plantations, village groves and tree avenues along roads and canals, but by 1911–12, it had grown into a very important part of the urban plans for the new capital city to be built in Delhi.⁸ Although the imperial capital's design has been analysed in detail by the historians of New Delhi's architecture, there are only a few references to the afforestation of the Ridge.⁹ It was decided after the transfer of capital that the official 'acropolis',¹⁰ which consisted of dominant government buildings located on Raisina Hill,¹¹ be embedded in a surrounding which was dominated by principles of English landscape gardening. After a brief discussion of the pre-nineteenth-century deforestation that denuded the Delhi region of its tree cover in the first part, the second section of this essay will discuss the various attempts made to afforest the Delhi Ridge before 1911 when Delhi was a relatively small,

on the theme. See C. M. Rosen and J. A. Tarr, 'The Importance of an Urban Perspective in Environmental History', *Journal of Urban History*, 20 (1994).

⁸ Although the afforestation of the Delhi Ridge would be described as 'urban forestry' today, in the late nineteenth and early twentieth century district officers—and not the forest department—undertook such activities as part of 'arboriculture'. Arboriculture referred to all efforts at planting trees within a district. Although gardens, parks and roadside avenues form an important part of the urban treescape of Delhi, the focus here will be on tracing the history of the 'plantation' on the Ridge which led to its afforestation. The afforestation efforts discussed in this essay were at a much smaller scale and motivated by aims very different from those informing contemporary 'forest' plantations such as the Chunga-Munga plantation in colonial Punjab which were usually executed by the forestry department.

⁹ *The Delhi Ridge Forest: Decline and Conservation* (New Delhi: Kalpavriksha, 1991), p. 2. R. G. Irving, *Indian Summer: Lutyens, Baker, and Imperial Delhi* (New Haven, CT: Yale University Press, 1981), pp. 62–63.

¹⁰ The Government House and the Secretariat Buildings meant for the imperial government were referred to as the 'acropolis' by European contemporaries. See Sten Nilsson, *The New Capitals of India, Pakistan and Bangladesh*. (Lund: Studentlitteratur and Curson Press, 1973), pp. 53–54.

¹¹ Raisina Hill was the name given to the raised area near the village Raisina (see Map 1). The village land was acquired and the people relocated in order to build the city of New Delhi. The region near the former village, however, continued to be called after it even after New Delhi was built. The Viceregal Lodge, now the Rashtrapati Bhavan, was located in Raisina.

though important city. The third section will focus on the afforestation undertaken after 1911 as part of the New Capital Project and explore the imprint of colonial compulsions in the strategy of afforestation. The final section will analyse the importance of the Ridge forest in imperial ideas of landscape.

Deforestation of the Delhi Region—A Retrospective

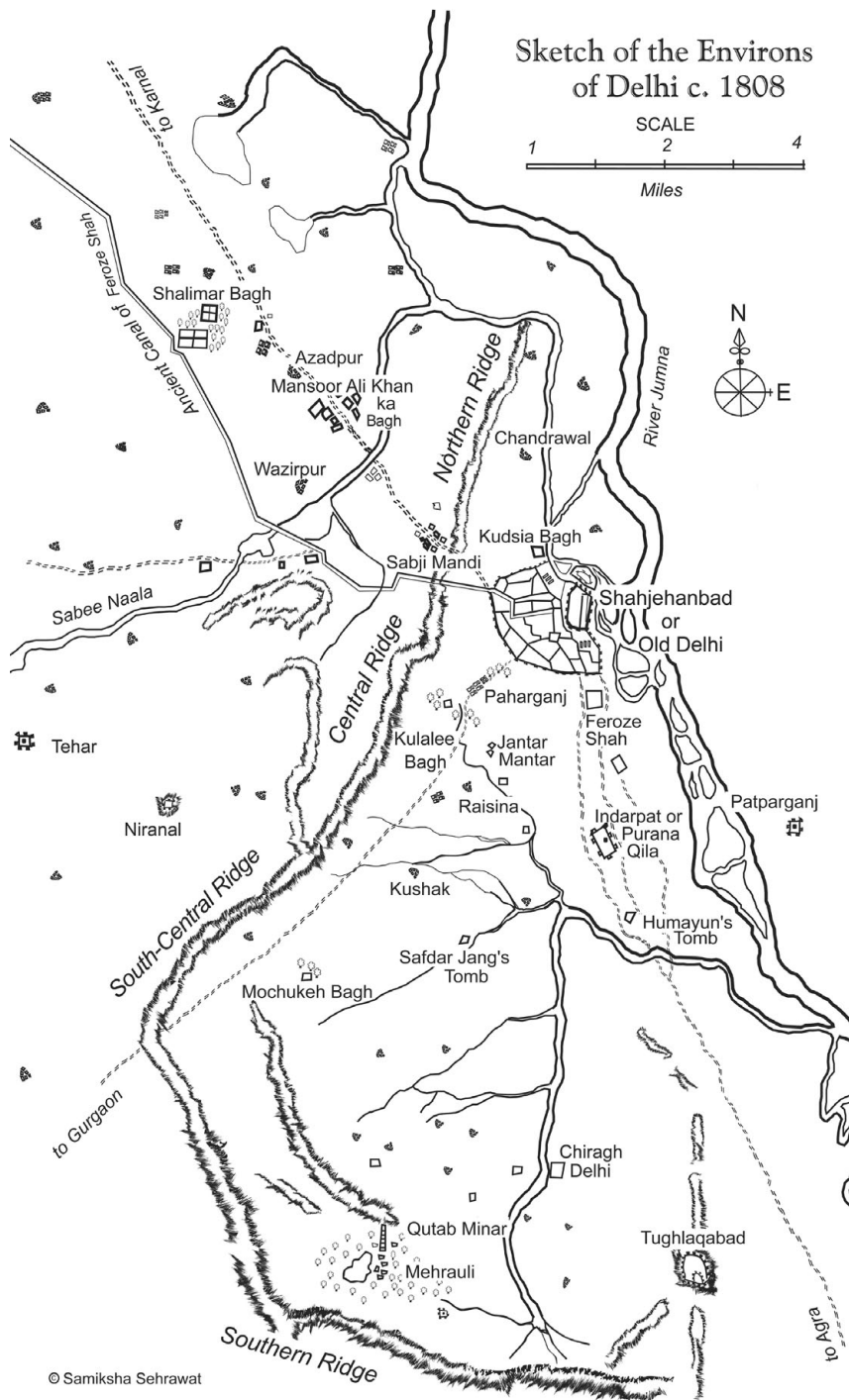
Due to a paucity of sources, it may not be possible to reconstruct a complete account of the deforestation of the Delhi region, but earlier accounts indicate the existence of a more dense green cover.¹² The lush extensive gardens for which the environs of Delhi were renowned, such as the famous Roshanara Gardens (located near the outskirts of Shahjahanabad) or the Tal Katora gardens near the village Rakabganj near the Southern Ridge, were planned and planted between 1650 and 1710. It is said that these spacious gardens also included a *shikarghar* (a hunting lodge) for *padshah* Muhammad Shah (r. 1719–48). The majority of these parks, gardens, greens and orchards formed a semicircle ranging from the river Yamuna in the north of Shahjahanabad to the south-west on the Southern Ridge.¹³ Impressed by the still green scenery in the first half of the nineteenth-century, a British observer mentioned the verdure of the forests surrounding Delhi as seen from Purana Qila.¹⁴ Apart from these gardens there seems to have still been an extensive shrub and tree cover west of the suburbs Sabzimandi and Kishenganj in 1911, stretching northward close to the villages Wazirpur and Azadpur and covering an area double the size of the walled city.¹⁵

¹² To locate the villages and gardens mentioned in this section, see Map 1. This map is a representation of Delhi in c. 1808. The map is based on two copies of very similar trigonometric maps which were used (and copied) by army officers to assist with the movement of troops in the region, for instance, during manoeuvres. The map is based on the 'Trigonometrical Survey of the Environs of Delhi or Shahjehanabad, 1808', BL, IOR, X/1658.

¹³ Blake, *Shahjahanabad*, pp. 59, 62–63.

¹⁴ These observations may have been guided by the pleasantness of the gardens which probably drew the attention of the British onlooker, and there may therefore be some exaggeration regarding the extent of green cover. Narayani Gupta, 'Delhi and Its Hinterland. The Nineteenth and Twentieth Centuries', in Robert E. Frykenberg, (ed.), *Delhi Through the Ages. Selected Essays in Urban History, Culture and Society* (Oxford: Oxford University Press, 1986), p. 142.

¹⁵ J. Renton-Denning, *Delhi the Imperial City* (Bombay: Times Press, 1911). Also see Map 2.



Map 1

Ancillary information provided by sources regarding the ecological pressures put on the surrounding region by the burgeoning population of Delhi aids the recreation of an impressionistic history of the city's deforestation. Population estimates show that between 1650 and 1739, up to 400,000 people are likely to have lived continuously within the walled city and the adjacent suburbs.¹⁶ Even in the second half of the eighteenth century, when the Mughals' central authority was beginning to dwindle dramatically, Delhi was surrounded by 8 to 12 kilometres of intensive cultivation.¹⁷ This continued in the nineteenth century during which Delhi's population rose from a mere 120,000 intramural inhabitants in 1833 to 200,000 people in 1901.¹⁸ The intensive cultivation and high agricultural output required to feed this huge urban population are likely to have put enormous pressures on the ecological resources of the region, so much so that extensive deforestation had probably begun during the Mughal period. These trends continued and intensified by the nineteenth century. In the 1810s, a British official stated that the forests in Delhi District had been 'nearly destroyed from indiscriminate cutting since they fell under our authority; any one is allowed to cut what he pleases, and where he pleases, on payment of a merely nominal duty, and the whole country resorts here for supplies. Formerly it was not so.'¹⁹ Deforestation continued when the British cantonment was shifted near the Northern Ridge in the 1820s. During the 'Great Rebellion' of 1857, the besieging British forces cut down the trees of Kudsia Bagh. In the aftermath of the revolt, the trees of Tis Hazari Bagh (lit.: Garden of the Three Thousand [Trees]) were felled to convert the area into a shooting range.²⁰ So far had the deforestation of the Delhi region proceeded by the second half of the nineteenth century, that the Ridge was described as generally bare, 'supporting little or

¹⁶ For further details, see Blake, *Shahjahanabad*, pp. 66–68.

¹⁷ This is also true for the big towns like Allahabad and Agra. See Christopher A. Bayly, *Rulers, Townsmen and Bazaars. North Indian Society in the Age of British Expansion, 1770–1780* (Cambridge: Cambridge University Press, 1983), pp. 80–84.

¹⁸ Blake, *Shahjahanabad*, 'Table 6: Population of Shahjahanabad, 1833–1901', p. 174. The extension of Delhi's hinterland and the number of villages within this area indicate a high density of settlements as well as people. Gupta, 'Delhi and Its Hinterland', p. 138.

¹⁹ Major Colvin, 'On the Restoration of the Ancient Canals in the Delhi Territory', *Journal of the Asiatic Society*, 3 (1833), 126.

²⁰ After 1857, it was the strategic importance of the Northern Ridge in securing Delhi that dominated British thinking. Narayani Gupta, 'Military Security and Urban Development: A Case Study of Delhi, 1857–1912', *Modern Asian Studies*, 5 (1971).

no vegetation save a stunted “kikar” or “karil” or the small bush of the “beri” A moderate pasture is obtained by flocks of sheep and goats herded by Gujar[s].²¹

Early Efforts to Afforest the Ridge, 1883–1909²²

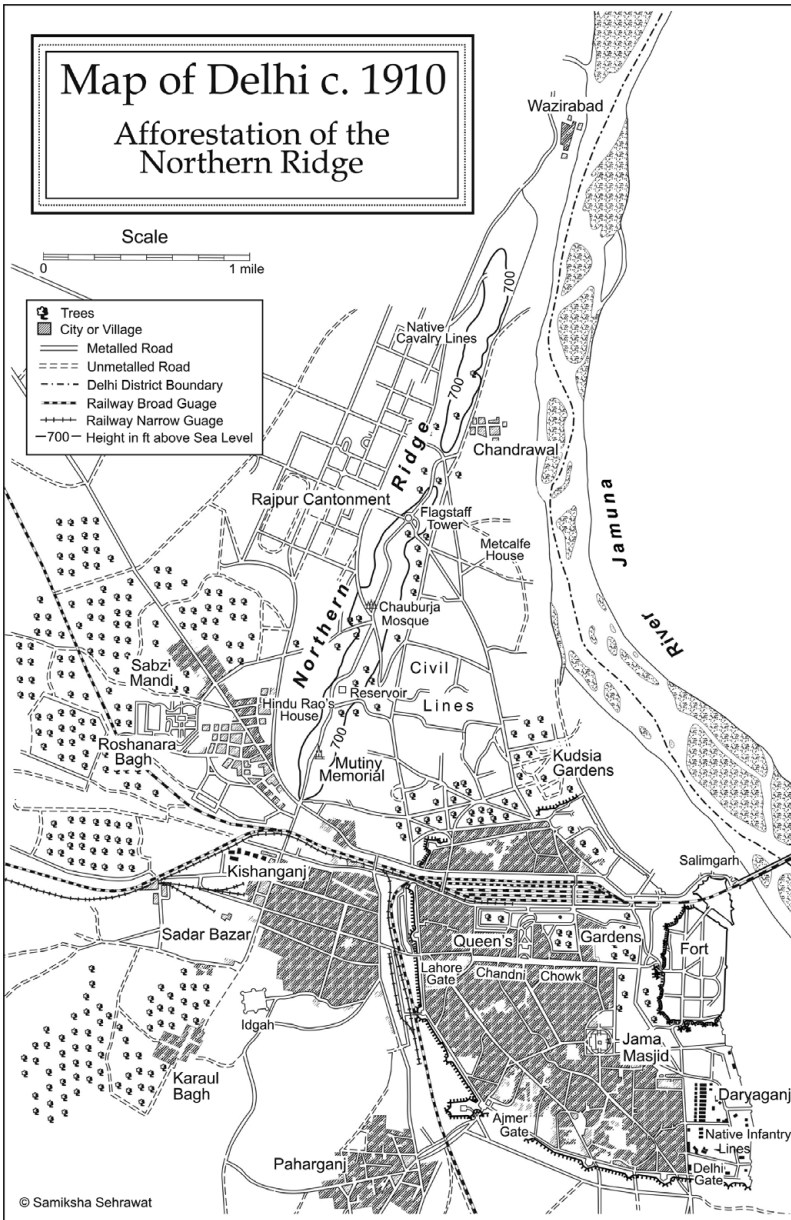
Early efforts to afforest the Ridge concentrated on its northern outcrop, which was close to the European settlement in the Civil Lines.²³ Between 1883 and 1911, there were three sporadic efforts—in 1883–84, in 1887, and in 1909—that were driven more by the enthusiasm of individual administrative officers than by a coherent and purposive scheme for afforestation. The first recorded attempt to afforest the Northern Ridge in 1883 was undertaken by J. R. Maconachie and Dr Ross—the plans were to be executed over a period of four to five years. Although little is known about Dr Ross, Maconachie was an enthusiastic district officer whose prolific achievements ranged from the compilation of a volume on *Selected Agricultural Proverbs of the Punjab* (1870) to co-authoring the revenue settlement report for Delhi (completed in 1882) and contributing to a tome on the customary law of Delhi. His personal interest in conservationist activities led to his involvement in the revival of the local pre-British *band* irrigation system in Delhi’s hilly rural areas in the 1880s in an attempt to prevent soil erosion and the desertification of agricultural land. Maconachie’s abiding interest in ecological conservation and arboriculture manifested itself not merely in his attempts to afforest the ridge but also in his continued efforts as the deputy commissioner of Gurgaon to afforest the hilly outcrops of the Aravalli Range in Gurgaon.²⁴

²¹ *Final Report on the Settlement of Land Revenue in the Delhi District* carried out in 1872–77 by Oswald Wood and completed in 1878–80 by J. R. Maconachie (Lahore: Victoria Press, 1882), pp. 2–3. Kikar (*Acacia arabica*), Karil (*Capparis decidua*) and Beri (*Zizyphus mauritiana*) are thorny plants characteristic of dry regions. Gujars, an ethnic group concentrated in north-western India, were associated by the colonial state with semi-nomadic pastoralism, although it was known that they led a sedentary life as agriculturalists in the plains. Here the references are mostly to Gujars settled in the villages near the ridge, such as Chandrawal.

²² For an illustration of this section, see Map 2.

²³ Also referred to as the Civil Station.

²⁴ Arboriculture was usually a neglected branch of district work, and progress was made on projects only when district officers took a special interest in the work. This resulted in spasmodic efforts as is evident from the efforts directed towards the afforestation of the Ridge. For a detailed outline of his plans for afforestation in the



Map 2

rural hills of Gurgaon, see copy of letter from J. R. Maconachie, Deputy Commissioner, Gurgaon, to Commissioner and Superintendent, Delhi Division, 2 May 1887, Deputy Commissioner's Office [hereafter D.C.O.], 2/1883, Delhi State Archives [hereafter D.S.A.], Delhi.

Maconachie's strategy in all the efforts mentioned above involved working in close collaboration with rural communities and an attempt to encourage a conservationist attitude through villagers' collaboration with district authorities in planting groves. This approach required less capital outlay and proceeded gradually. During his term as a district judge in Delhi, Maconachie used these principles of close cooperation with rural communities to afforest the Northern Ridge by constructing earthwork bands to dam the water.²⁵ He focused his efforts on the far north part of the Ridge which was in close proximity to village Chandrawal,²⁶ perhaps in an attempt to reduce the cost of the scheme by utilising villagers' labour in managing the *bands* constructed.²⁷ However, every instance of government action related to the afforestation of the Ridge was marked by the marginalization of surrounding indigenous rural communities. Despite his sympathetic attitude towards Delhi's rural communities, as part of the colonial administration, even Maconachie was not entirely averse to the restricting of villagers' rights when the needs of the paternalistic colonial state so dictated, and villagers figured in these plans as a group that would have to be 'dealt with':

The first measure is to make arrangements for effectually excluding goats and cattle from browsing on it The villagers who own any plots which may be needed would have to be dealt with, but they . . . I trust will be induced to consent to what will ultimately benefit them, as covered with wood, the ground will be more valuable than it is now.²⁸

The afforestation plans languished till 1887 when a second effort to afforest the Northern Ridge was initiated by Revd. G. A. Lefroy, of the Cambridge Mission, who was also Civil Station member of the Delhi Municipal Committee. Writing four years after the first afforestation, Lefroy declared Maconachie's experiment 'unsuccessful', because 'the

²⁵ Bunds are earthen dams made of compacted soil from the foothills. They are usually bowl shaped and collect water from the hills during the monsoons for supplementary irrigation. Mathew Kurian and Ton Dietz, 'Irrigation and Collective Action: A Study in Method With Reference to the Shiwalik Hills, Haryana', *Natural Resources Forum*, 28 (2004), 35.

²⁶ Chandrawal village was dominated by Gujars. The site of the Coronation Durbar of 1911 was close to the village. Its land was acquired for the construction of New Delhi in 1912.

²⁷ Letter from Reverend G. A. Lefroy of Cambridge Mission Delhi to O'Brien, Deputy Commissioner, Delhi, 6 August 1887, D.C.O. 2/1883, D.S.A., pp. 52–53.

²⁸ Letter from J. W. Tremlett, Commissioner and Superintendent, Delhi Division, to George Smyth, Deputy Commissioner of Delhi, 17 December 1883, D.C.O. 2/1883, D.S.A., p. 2.

planting was not proceeded with for long enough’—a comment more on the spasmodic nature of official efforts than on Maconachie’s work.²⁹ Lefroy’s attempts were forthrightly directed at serving the needs of that part of the city which was inhabited by Europeans and colonial officials—the Civil Station. He felt that Maconachie’s efforts, which were concentrated around Chandrawal village, were too far north to benefit the European Civil Station:

[T]he object of the whole scheme being as I understand very largely to benefit the [European] residents of the Civil Station by clothing the hillside with wood and so preventing the tremendous absorption of, and subsequent radiation of, heat from the ridge from which at present they suffer so much . . . [The area chosen for afforestation is therefore] the part nearest to . . . the houses to be benefited.

It was widely believed by contemporary forestry and arboriculture experts that planting trees in large numbers led to a cooling effect in a region.³⁰ The second initiative for afforestation was motivated not only by concern to making the climate of the region more clement, but also by enhancing the ornamental beauty of the city. As one officer pointed out, ‘if Mr Lefroy be successful in rearing the plants, the Ridge will look very pretty in time’³¹. Due to the shift from afforesting the Ridge for loosely conservationist reasons to a focus on benefiting the city and specifically that part of the city which was inhabited by the white colonizers, the local Delhi villagers appeared as obstacles more than ever before. Although the Delhi administration forwarded a copy of Maconachie’s Gurgaon report to Lefroy, his strategy for afforesting the Ridge was not one that worked in cooperation with villagers but one that worked by strictly excluding them. Despite this, clandestine grazing in the forbidden areas earmarked for afforestation continued: ‘[T]he cattle belonging to Ghosies are taken on the Ridge to graze at nights and they destroy all small plants. They have been strictly

²⁹ Note, 1 July 1909, D.C.O. 2/1883, D.S.A., p. 60.

³⁰ See, for instance, the various references to such schemes in the contemporary forestry journal *Indian Forester*, e.g., F. B. Manson, ‘Trees as a Protection from Hot or Violent Winds’, *Indian Forester*, 7 (1881–82). William Meyer’s work reveals awareness of the human-induced climatic changes and the urban heat island effect in nineteenth-century America. See his ‘Urban Heat Island and Urban Health: Early American Perspectives’, *Professional Geographer*, 43 (1991), 38–48.

³¹ Letter from C. H. Bryan to O’Brien, Deputy Commissioner, Delhi, 31 May 1887, D.C.O. 2/1883, D.S.A., p. 46

forbidden to graze on the ridge but they do so on the quiet.³² The local authorities tried to evolve more effective schemes to deal with the problem, including fencing:

As an [*sic*] chief difficulty arises from deprecation by the cattle from the neighbouring villages, I consider this is a very important step. The fences [of cactus bushes planted around young trees] will not of course be of much service to us this year, or possibly next, but if they take root strongly—as seems every prospect of their doing—we shall have in a few years a number of completely guarded enclosures where young trees can be put with perfect safety.³³

Meanwhile, in the absence of fences, Lefroy came up with schemes that were more discouraging for the villagers themselves:

I have carried out, by night and day, various raids on the trespassing cattle and by not releasing the cattle on the payment of the merely nominal fine but prosecuting the owner for mischief I have I hope partly succeeded in convincing the latter that for the present at any rate it will pay them better to graze their cattle elsewhere.³⁴

The indigenous villagers, although unable to challenge the government's dictates, did not passively accept these schemes, which did not benefit them but did encroach upon the scarce resources available to them in an unfertile region. So obdurate did the villagers remain with continuing grazing that Lefroy's choice of site for planting trees too was influenced by a desire to prevent them from sabotaging the afforestation: '[The site near the Civil Lines was chosen] because the difficulty from grazing cattle, while great everywhere, is at a maximum at the north end, close to the offending villages, and at a minimum close to the houses of the civil station.'³⁵

After Lefroy's strenuous efforts, the matter seems to have become prey to administrative apathy once again. In 1909, the Deputy Commissioner C. A. Barron (1909–11) again initiated the afforestation of the ridge. His survey of the ridge showed that Lefroy's efforts had increased the tree cover of the ridge:

On the Ridge we saw to the east of the road leading up to the Choburji Mosque [see Map 2], a number of *nim* trees with cactus hedges round them which are evidently the results of the tree planting operations conducted by

³² *Ibid.*

³³ Lefroy to O'Brien, 6 August 1887, D.C.O. 2/1883, D.S.A., p. 51.

³⁴ *Ibid.*, pp. 51–52.

³⁵ *Ibid.*, p. 53.

the present Bishop of Lahore [Lefroy] in the hot weather of 1887... and perhaps for a year or two subsequently. But since then the matter appears to have been neglected—at any rate so far as the records show. However, considering the locality I think we must say that Mr Lefroy's efforts have been very successful. If in another twenty years we can have similar trees covering the greater portion of the bare parts of the Ridge we shall not have done badly.³⁶

In 1909, the initiative for afforesting the ridge came from military authorities interested in the part of the ridge that fell within the Rajpur Cantonment.³⁷ The military authorities believed that 'great sanitary and ornamental advantages will be thereby gained' and therefore sought expert advice from the civil authorities to ascertain the expenditure to be expected and details such as suitable trees.³⁸ Barron responded by deciding that this revival of interest in afforesting the ridge should be utilized to 'conduct experiments in the Municipal area on the Ridge' with the aim of reinitiating afforestation.³⁹ He invited the opinion of the superintendent of gardens regarding the trees to be planted and the relative advantages of the different methods of planting.⁴⁰ Barron's personal interest is evident from his close interaction with these details and his surveys of the Northern Ridge as the measures were initiated.⁴¹

These fresh efforts continued to marginalize the indigenous rural population with further exclusion of villagers from the area to be afforested. Strict measures were taken to restrict and prevent grazing by local villagers after the planting of saplings. Barron passed orders to enforce the restrictions on grazing in August 1909:

[A] notice should be sent around Chandrawal and any other abadis [village settlements] concerned (including perhaps the houses in Civil Lines close by, whose cattle probably go and graze there) saying that as the planting operations are being undertaken in the Municipal area on the Ridge it is closed to grazing of all kinds (cattle as well as goats & co.) for the time being until further notice, and trespassing animals will be impounded and their owners prosecuted if necessary. A few notices to the above effect should be put up round the area. The chowkidars [village guards] to be entertained by

³⁶ Note by C. A. Barron, 7 August 1909, D.C.O. 2/1883, D.S.A., p. 75.

³⁷ This was the site of the Old Delhi Cantonment as seen in Map 2. The New Delhi Cantonment is indicated in Map 3, and is located in the same area even today.

³⁸ Letter from Office of Cantonment Magistrate, Major W. C. M. Woodcock to Deputy Commissioner, Delhi, 26 June 1909, D.C.O. 2/1883, D.S.A., p. 62.

³⁹ Note, C. A. Barron, 1 July 1909, D.C.O. 2/1883, D.S.A., p. 61.

⁴⁰ *Ibid.*

⁴¹ Note, C. A. Barron, 6 July 1909, D.C.O. 2/1883, D.S.A., pp. 65–66.

the Superintendent Gardens should be given parawanas [legal documents] to show their authority for preventing grazing. They will of course be expected to drive off cattle in the first place, only impounding and prosecuting if persisted in.⁴²

The officials knew that enforcing the restriction would not be easy: 'The grazing can be stopped [prohibited] but the difficulty will be in preventing grazing at night, as these Chandrawal men are not above turning their cattle into the public gardens and private compounds at night.'⁴³ The claim that it would be easier to stop the grazing in years of abundant rainfall indicates that villagers resisted such rules because there wasn't enough land for grazing elsewhere.⁴⁴

By 1909, the earliest strategies for afforestation evolved by Maconachie had been abandoned in favour of a more capital intensive strategy that involved the superintendent of gardens planting tree saplings and seeds in fenced enclosures, the employment of several chowkidars to guard these and elaborate notices to warn the neighbouring rural population off the reserved area.⁴⁵ This capital intensive strategy received a much further boost when the New Delhi Ridge was planted after the announcement of the transfer of capital to Delhi during the elaborate Coronation Durbar of 1911 that was celebrated in honour of King George V's ascension to the imperial throne.⁴⁶

Afforestation for the New Capital City, 1911–13

After the declaration of the transfer of capital to Delhi in 1911, an appropriate site for the proposed gigantic city layout had to be

⁴² Note, C. A. Barron, 7 August 1909, D.C.O. 2/1883, D.S.A., p. 76.

⁴³ Note, July 1909, D.C.O. 2/1883, D.S.A., p. 70.

⁴⁴ Note, C. A. Barron, 30 July 1909, D.C.O. 2/1883, D.S.A., p. 71.

⁴⁵ In contrast, government afforestation schemes for rural areas of Delhi involved very little outlay on staff and on other counts.

⁴⁶ For a discussion of the Coronation Durbar see Robert E. Frykenberg, 'The Coronation Durbar of 1911: Some Implications', in Frykenberg, (ed.), *Delhi Through the Ages*; Michael Mann, 'Pomp and Circumstance in Delhi, 1877–1937 oder: Die Hohle Krone des British Raj', in: Peter Brandt und Arthur Schlegelmilch (eds.), *Symbolische Macht und Inszenierte Staatlichkeit: 'Verfassungskultur' als Element der Verfassungsgeschichte* (Bonn: Dietz Verlag, 2005), pp. 101–134. 'The Durbar Incident' by Charles W. Nuckolls discusses the political implications inherent to the symbolism of the Durbar ceremonies.

found.⁴⁷ A vivid debate in India as well as in England about the location of the future capital was set off following the announcement. A special Town Planning Committee, whose members had never been to India before, was set up to develop an overall plan regarding the site, the layout and the dimensions of the capital city. This section will discuss the new afforestation strategy against the background of earlier measures discussed above and the next section will locate the importance of this afforestation within the imperial urban landscape.

The afforestation of the Central Ridge was part of the enormous changes that altered the environment and the ecology of the region. By 1913, 25 villages and their agricultural land had been acquired. The entire landscape of the land taken over was reworked, village settlements were levelled, many stretches of low-lying land were filled up, several hillocks were levelled and agricultural fields were replaced with macadamised roads and buildings.⁴⁸ Although the greening of the Ridge received an impetus only after the plans for the new capital city had placed its rocky surface in proximity to the chosen site, it fit into plans for other urban green and open spaces such as parks:

Every effort must be made to ensure that the parks are a real feature [of the new city] Once trees have been planted and can be given a certain amount of water, some of these parks may be left for many years in a wild state, requiring no costly upkeep, forming an area which will be dustless and pleasant to the eye and always available for expansion. The afforestation of the southern ridge [Central Ridge] has already been referred to. As it proceeds, one of the arguments that have been so freely used of late that some of the site is barren rock will speedily disappear. But the northern ridge must be considered also, for as soon as the linking road has been carried out, the drive along the crest from the Cantonments and Malcha to Hindu Rao's House and the Flagstaff Tower will become popular. Arrangements are now being made to protect its slopes, and, when to an unsurpassed sentimental and historic interest are added fine trees and shrubs and flowers, few places should have a stronger attraction.⁴⁹

⁴⁷ To locate the layout of the new city and its relation to the ridge and other parts of Delhi mentioned in this section, see Map 3.

⁴⁸ Adam Rome points to the environmental costs of such building activity in his analysis of land development in America. 'Building on the Land: Towards the Environmental History of Residential Development in American Cities and Suburbs, 1870-1990', *Journal of Urban History*, 20 (1994).

⁴⁹ *Final Report on the Town Planning of the New Imperial Capital* (Delhi: Superintendent of Government Printing, India, 1913), pp. 15-16.

The very site for the new capital city was chosen keeping in mind its fertility that would allow green parks and tree avenues:

The Committee have twice seen the ground under a smiling expanse of crops and feel the greatest confidence in the good qualities of the soil for the purposes of gardens, parks and arboriculture generally. This opinion is shared by Mr Griessen, an expert landscape gardener who inspected the site.⁵⁰

The new capital was to receive a green belt with a forest on the hills that enhanced the effect of trees planted along the broad avenues and in the spacious compounds, placing New Delhi in a garden-like environment. The 'Scheme for the Afforestation of the Ridge', submitted in 1913, stated that

[f]rom an aesthetic point of view the ridge is not a pleasant sight. . . . As it forms the most conspicuous object on the horizon when seen from the site proposed for New Delhi it is desirable that it should be made more attractive in appearance by covering its slopes with a green mantle of vegetation, and at the same time it is desirable that there should be a wild park in the neighbourhood of the new city for the recreation of its inhabitants. Apart from the aesthetic point of view it is very necessary to afforest the ridge in order to stop the run-off of rain water and prevent thereby the erosion of the *nalas* in the plains.⁵¹ The afforestation of the ridge may also be beneficial in framing a screen to stop much of the dust which blows from the ridge over the site proposed for the new city.⁵²

The ornamental functions considered crucial to this day for urban forests were combined with practical concerns about making the climate more congenial. Similar objectives had been behind urban afforestation efforts by white English settlers in Canberra, Australia and Christchurch, New Zealand.⁵³ The official report of the Planning Committee for the New Imperial City set out the twin objectives in greater detail:

Whatever eventualities the days to come may have in store, the new city must have at its hand the inherent power to command health, and a wealth of air spaces and room for expansion. . . . There must be beauty combined with comfort. . . . Where possible, there should be a presentation of natural beauties—hill, wood, and water—and of monuments of antiquity and of the

⁵⁰ *Final Town Planning Report*, p. 3.

⁵¹ In this context it is likely that *nalas* refer to the gullies formed due to soil erosion.

⁵² *Scheme for the Afforestation of the Ridge, Delhi* (Delhi: Superintendent Government Printing, 1913), p. 1.

⁵³ John Banks and Chris Brack, 'Canberra's Urban Forest: Evolution and Planning for Future Landscapes', *Urban Forestry and Urban Greening*, 1 (2003); G. H. Stewart *et al.*, 'The Re-emergence of Indigenous Forest in an Urban Environment, Christchurch, New Zealand', *Urban Forestry and Urban Greening*, 2 (2004).

architectural splendours of modern times The perfected whole should be obtainable with due regard to economy.

The attention to be paid to physical conditions chiefly centres on making the new city one suited for a seven months' residence in a climate which varies during that period from a maximum shade temperature of 105 degrees Fahrenheit to a minimum winter shade temperature often approaching freezing point. Health in a land with a bad malarial record and violent variations in climate, rainfall and river flood levels has to be most specially safeguarded. The local drawbacks of dust, glare and barrenness have to be combated⁵⁴

Apart from the aesthetic and protective purposes, the reforestation scheme also pointed out the possibility of providing a source of timber, fuel wood and grass for the local population and their cattle. However, the possibility of commercial exploitation of the forest was ruled out categorically.⁵⁵ In order to pursue the proposed plan the limits of the area recommended for afforestation were to be ascertained and furnished to the government with the means to acquire and fence parts of the Southern Ridge.⁵⁶

The prospect of replanting the Ridge was not very promising since the natural vegetation had almost disappeared. Except for a fair growth of grass, there was hardly any shrub cover and there existed just a few isolated spots with small trees—some of which were the results of earlier afforestation efforts. To obtain the best results within a short time various methods were suggested to afforest the Southern Ridge. Apart from the strict prohibition of grazing and a first sowing of seeds during the rainy season, the scheme highly recommended artificial watering. Irrigation during the dry season was expected to guarantee the rapid growth of various species of trees as well as other plants and produce a vegetation pleasing to the eye. Special pipelines and water pumps had to be installed and even the use of vehicle transport was proposed to carry water onto the Ridge. To prevent further erosion by surface run-off effects, it was recommended that terraces be cut into the Ridge to hold back and store the water. Additional soil was to be brought to fill holes and depressions, thus encouraging the growing plants.⁵⁷

The terracing of the slopes received particular attention in the scheme's meticulous description of the ways and means of obtaining

⁵⁴ *Final Town Planning Report*, p. 2.

⁵⁵ *Ibid.*

⁵⁶ G. F. Montmorency, Personal Assistant to Chief Commissioner, Delhi to Deputy Commissioner, Delhi, 1 September 1913, Delhi, D.C.O. 2/1883, D.S.A.

⁵⁷ *Scheme for the Afforestation*, pp. 2–4.

optimal visual effect. Using estimates of the average annual growth of the proposed tree species it predicted that a height of 33 feet could be achieved within 22 years. If two terraces were cut into the Ridge's slope and an additional one at the base, such that the vertical distance between them from surface to surface was 33 feet, the Ridge would appear clothed in the 'green mantle' that was desired by the town-planners in this time. According to these calculations, a minimum of three terraces allowed the desired results to be obtained while ensuring that expenditure was kept within acceptable limits. Additional terraces, planting and watering would have led to a better effect and a brighter appearance within a much shorter time.⁵⁸ However, since it was desired that costs be kept at as low a level as possible, the government naturally voted for the 'cheap' version of the afforestation scheme. The maximum effect was to be obtained at a minimum of cost—the *leitmotiv* of British rule in India. The Delhi government suggested alterations to the proposals made by B. O. Coventry regarding the afforestation of the ridge in order to reduce the expenditure involved.⁵⁹

Despite these attempts at economy, the plans finally accepted by the Town Planning Committee were capital-intensive, representing the culmination of the earlier strategies that had used the colonial state's authoritarian power to push ahead tree-planting on the ridge with extravagant measures not employed elsewhere in the service of afforestation:

A scheme has now been drawn up by an experienced forest officer for the afforestation of the ridge. This scheme provides for rough terracing to hold up soil and skilful treatment of the watercourses down which the surface waters escape. Irrigation to start arboriculture is possible from the drinking water-supply which will be delivered at a high level along the crest. It is anticipated that the stoppage of browsing will in itself conduce to the rapid growth of much natural wild vegetation, while the skilled arboriculture operations of the afforestation scheme will result in a complete reboisement of these hills.⁶⁰

Furthermore, the marginalizing of indigenous communities was completed with the relocation of the villages—that had so offended colonial officers engaged in previous afforestation efforts—away from the Ridge after the government had acquired their lands. On

⁵⁸ *Ibid.*, pp. 7–9.

⁵⁹ Letter from Chief Commissioner, Delhi, to Secretary to Government of India, Revenue and Agricultural Department, 25 July 1913, D.C.O. 39/1912, D.S.A., pp. 93–94.

⁶⁰ *Final Town Planning Report*, p. 4.

the other hand, Indian urban dwellers who lived in 'Old Delhi' were never intended to benefit from these schemes meant for the white population. Despite the relocation of neighbouring villages, chowkidars were appointed to ensure that any cattle caught grazing in the area were pounded.⁶¹ The Southern Ridge was fenced and declared a reserved forest under Act VII of 1878 on 24 November 1913.⁶²

The Ridge Forest and Landscaping: Dimensions of Britain's Imperial Design in India

The importance of the proposed forest on the Ridge to the imperial capital's plan is evident from its role in the selection of a suitable site. Several proposals for a suitable location for the new capital and Government House were submitted between a first draft dating July 1912 and the final plan of March 1913, each having their own advantages with respect to spatial needs, sanitation and health considerations and development potentialities.⁶³ In the beginning, the British preferred a site in proximity to the Northern Ridge because of the 'sacrosanct' historical monuments of the 'Mutiny'. The site was also considered desirable because of its associations with the Delhi Durbars held in 1876–77, 1902–3 and 1911. However, due to unfavourable geological and health-cum-sanitary conditions of the northern site which would have rendered massive and therefore expensive construction work necessary, it was finally decided in 1913 that New Delhi be built south of the city, and the residence of the Viceroy and Governor General be erected on Raisina Hill.⁶⁴

⁶¹ Letter from G. F. de Montmorency to Deputy Commissioner, Delhi, 1 September 1913, D.C.O. 39/1912, D.S.A., pp. 90–91.

⁶² G. F. de Montmorency to Deputy Commissioner, Delhi, 3 December 1913, D.C.O. 39/1912, D.S.A., p. 109.

⁶³ For a systematic analysis of these plans, see Andreas Volwahren, *Imperial Delhi. The British Capital of the Indian Empire* (Munich: Prestel, 2002), pp. 198–208. Irving, *Indian Summer*, ch. 3, 'Choice of the Site', pp. 39–52. In fact, Hardinge had already opted for Raisina Hill in his telegram dated 11 August 1912, when he considered the costs of the hitherto submitted plans and after inspecting the area adjacent to the Southern Ridge. Yet, at this early stage Hardinge had not decided whether the axis should run towards Jama Masjid or towards Inderpat, but he mentioned both points of view; see Nilsson, *New Capitals of India*, p. 46.

⁶⁴ *Special Report of the Delhi Town Planning Committee on the Possibility of Building the Imperial Capital on the North Site* (Delhi: Government Printing, 1913).

The possibility of reforesting the Southern Ridge may have contributed significantly to this decision. Before the revised plan was finally accepted, Viceroy Lord Charles Hardinge (1910–16) had ordered an inquiry into the possibility of afforesting the bare hills. The forester, P. H. Clutterbuck, concluded that reforestation was certainly possible, depending on the amount of water available—artificial irrigation would render afforestation less difficult. T. R. J. Ward, government engineer to the Town Planning Committee, also reported that with the use of forestry experts the planting of trees would be successful.⁶⁵ After Clutterbuck's report had been received, the Viceroy—who was fond of grand views⁶⁶—personally decided to have Government House erected on Raisina Hill, because '[f]rom the top of the hill there was a magnificent view embracing old Delhi and all the principal monuments situated outside the town, with the river Jumna winding its way like a silver streak in the foreground at a little distance.'⁶⁷ Edwin Lutyens, the well-known Edwardian architect and a member of the Town Planning Committee, also advocated this setting: 'It is a beautiful site—aspects, altitude, water, health, virgin soil etc. right and views across old Delhi and the wilderness of ruined tombs that form the remains of the seven older Delhis.'⁶⁸ Particularly the silhouette of Delhi with Jama Masjid as well as Inderpat or Purana Qila⁶⁹, Humayun's Tomb and Safdar Jang's Tomb were places

⁶⁵ *Ibid.*, 204. For the preliminary discussion on the reforestation of the Southern Ridge, see Irving, *Indian Summer*, pp. 62–63.

⁶⁶ This attitude becomes evident when reading his description of the Delhi Durbar of 1911. 'The King's camp, covering 85 acres, was beautifully laid out with red roads, green lawns and rose gardens with roses from England. The fort at Delhi which had been a wilderness was sparkling with fountains, water runnels, green lawns and shrubberies, while the scene of the forthcoming Durbars was gradually assuming its final form with magnificent stately pavilions. . .', cf. Charles Hardinge, *My Indian Years, 1910–1916: The Reminiscences of Lord Hardinge of Penshurst* (London: John Murray, 1948), p. 42.

⁶⁷ *Ibid.*, p. 72.

⁶⁸ Edwin Lutyens to his wife, 9 June 1912, in Clayre Percy and Jane Ridley (eds.), *The Letters of Edwin Lutyens to His Wife Lady Emily* (London: Collins, 1985), p. 253.

⁶⁹ Since the fort known as the Purana Qila was located close to the village Inderpat, the two terms were used by the British interchangeably. It was widely believed that this was the site of the ancient city of Indraprastha mentioned in the Mahabharata. 'The capital of the Pandavas, constructed after destroying the forest of Khandwaprastha, by the divine architect Vishwakarma under the order of Indra, was raised to his glory and named Indraprastha. It was described as a paragon of beauty which equalled in excellence the legendary Naga city of Bhogawati. Indraprastha also known as Indapatta, Indarattha etc. is mentioned as a town in the Jatakas. Indraprastha survived

of visual interest in the far distance of Government House's main entrance.⁷⁰

As the Southern Ridge was to serve as a colourful background for Government House, special attention was also given to the tree species to be selected for planting. It was pointed out that the reforestation project was intended

largely for aesthetic purposes and consequently such species should be selected, as far as possible, which are both useful economically and at the same time are evergreen, or produce conspicuous flowers, or have some other aesthetic characteristics. Those species which possess both the features can be introduced on as large a scale as possible, but those which are of aesthetic value only should be introduced more sparsely [emphasis ours].⁷¹

Much has been written on the grand design of New Delhi, upon its monumental dimensions and on its imperial architecture. One of the most striking features of New Delhi, besides all these monumental aspects, is the triangular and hexagonal street pattern of New Delhi which is well known. The overall symmetry of the layout made reference to models of urban development conceived in various western capitals and was based on the so-called *piéd d'oie* (goose foot). This principle of town planning was originally developed in Renaissance Rome (Piazza del Popolo with its three roads radiating into the city, one leading out of it) and later on reproduced in Baroque Versailles and Berlin (Friedrichstadt with Friedrichstrasse as its main north–south axis through and out of the city) and further developed in classicistic Washington where Capitol Hill and the grand vista with its two adjacent outward radiating avenues served as the principal grid for the city. The plan of Washington is considered to have particularly influenced New Delhi's layout.⁷² This principle of ordering the urban space was then considered representative not merely of erstwhile absolutist *ancien régimes* of Europe, but also of a modern, well

as a district (*pratigana*) in an inscription dated AD 1328, and as a village, Indarpat, situated in Purana Quila until recently. Indarpat or Indapat existed as one of the pats or plateaus.' *Delhi District 1912*, vol. 5A, *Gazetteer of Punjab* (Lahore: Civil & Military Gazette Press, 1913).

⁷⁰ At the beginning of the twentieth century, the place itself was described as 'a desolate plain covered with the ruin and wreckage of many cities . . . From the Delhi Gate a road starts across this desert . . . it leads through a country of stones and dust. Its margins are marked by trees and deserted houses, and but for the shabby bushes it would be hard to say where the roadside ended and the plain began', Frederick Treves, *The Other Side of the Lantern* (London: Cassell & Co., 1906), pp. 115–116.

⁷¹ *Ibid.*, p. 11.

⁷² Volwahsen, *Imperial Delhi*, pp. 43–47.

organized and, therefore, civilized political system in British eyes, be it democratic or autocratic.

In addition to New Delhi's symmetrical street pattern, the city's environmental design was based on focal points of view. In the original plans a visual link was envisaged between the new capital and the Mughal residence thus demonstrating continuity of rule by symbolic topographic links. To the north-east of Government House the focus was on the Jama Masjid, the main mosque of Shahjahanabad, now termed 'Old Delhi'⁷³, to the east the view was directed towards Inderpat, in the south-east the focus was on Humayun's tomb and a little bit further south-east, towards Safdar Jang's tomb.⁷⁴ The 'Mughal Gardens', designed by Lutyens, also lay towards the east of the Government House, extending as far as the Ridge.⁷⁵ The distant Flagstaff Tower on the Northern Ridge completed the crescent of historical monuments. The green vista in the foreground of Government House with India Gate as the terminating focus of the *via triumphalis* was complemented by the green belt of the Ridge in the background, thus placing the government buildings of the 'acropolis' in a garden scenery.⁷⁶ This gigantic scenic arrangement of nature

⁷³ The British gradually named Delhi or Dilli 'Old Delhi' after the 'Great Rebellion' of 1857–59, when they extended the Civil Lines situated in the north of the city towards the Northern Ridge. Henceforth Delhi and its surrounding old towns, forts and fortresses as well as ancient monuments were summarily called 'Old Delhi', particularly in tourist guides. Still, at the beginning of the twentieth century, Delhi was referred to as '[m]odern Delhi or Shahjahanabad', cf. H. C. Fanshawe, *Delhi. Past and Present* (London, 1902; reprint: Indian publ.: Gurgaon etc.: Vintage Books, 1991), p. 3. Ultimately, the building of New Delhi turned Shahjahanabad into Old Delhi thus sharply demarcating with that nomenclature the dichotomies of modern and traditional, spacious and crowded, healthy and unhealthy, safe and unsafe, efficient and inefficient, white and native, etc.

⁷⁴ Nilsson, *New Capitals of India*, p. 82.

⁷⁵ The Mughal Gardens were part of the Viceregal estate, near Government House.

⁷⁶ It would be totally misleading to characterise New Delhi as a garden city since the imperial capital lacks almost all the features that were considered an integral part of such a city by Ebenezer Howard who initially conceived the idea of the Garden City. In his famous *Tomorrow. A Peaceful Path to Reform* (London: Swan Sonnenschein, 1898), Howard pointed out that a garden city was to be a decentralised city with various local centres providing for administrative, commercial, health, education and recreation facilities. Industry was to be separated from the residence areas, yet to be reachable by public transport. Apart from that, a garden city was meant to overcome the separation of classes that characterised contemporary industrial cities. The New Delhi conceptualised by the British, however, stands for a highly centralised administration, based on individual, private transport and no industrial sectors at all. Further, as in all colonial cities, it was based on a loose segregation. Moreover, the hierarchical order and placing of houses within the capital not only contradicts the

and culture, based on an amalgam of the principles of established European town planning and of English landscape gardening, formed the second visual structure of the imperial city.⁷⁷

The real monuments of what was declared to be old and ancient Delhi as well as a mosque still in use became the picturesque focal points for the new imperial capital, embedding the British imperial capital *ad oculos* into the historical succession of great Indian realms and rulers, thus legitimising and glorifying British rule. The design of New Delhi thus marked the culmination of principles that had been developed by the British in places like Agra where the picturesque scenery of the Taj Mahal and Lal Qila determined the position and the layout of the British Civil Lines.⁷⁸ That picturesque scenery was of great importance to the British is evident from the following description of Delhi in the 1830s after extensions of the Civil Lines had been built north of the city:

Modern Delhi . . . is enclosed by a splendid rampart of red granite and entered by gateways most magnificent which the world can boast . . . From the outside the view is splendid; domes and mosques, cupolas and minarets with the imperial palace forming like the mountain of red granite, appear in the midst of groves of clustering trees, so thickly planted that the buildings have been compared, in oriental imagery, to rocks of pearls and rubies, rising from the emerald sea.

In approaching the city . . . the retrospect realises all that the imagination has pictured of oriental magnificence; mosques and minarets glittering in the sun, some garlanded with wild creepers, others arrayed in all the pomp of gold, the exterior of cupolas being covered with brilliant metal, and from Mount Mejoon, over which a fine road now passes, the shining waters of the Jumna, gleaming in the distance.⁷⁹

original idea but is an inversion of it. Only the street pattern with its roundabouts may evoke some similarity with Canberra, the city which comes closest to a garden city. Nilsson, *New Capitals of India*, p. 79.

⁷⁷ A basic introduction into the principles of English landscape gardening is provided by George Plumptre, *The Garden Makers. The Great Tradition of Garden Design from 1600 to the Present Day* (London: Pavilion, 1993), pp. 55–94.

⁷⁸ Thomas R. Metcalf, *An Imperial Vision. Indian Architecture and Britain's Raj* (Oxford: Oxford University Press, 1989), pp. 16–18, 88–90; G. H. R. Tillotson, 'The Indian Picturesque: Images of India in British Landscape Painting, 1780–1880', in Christopher A. Bayly (ed.), *The Raj, India and the British, 1600–1948* (London, National Portrait Gallery, 1990), pp. 141–150, 201–229.

⁷⁹ Anonymous, 1835, 6, cited in King, *Colonial Urban Development. Culture, Social Power and Environment* (London, Routledge and Kegan Paul, 1976), pp. 196–198.

To the European viewer Delhi was interesting only when viewed from the outside. The more he withdrew from it, the more the city and its environs could be framed into a picture guided by principles of western aesthetics. These same aesthetic values were echoed at the beginning of the twentieth century by Hardinge when he decided in favour of Raisina Hill [quoted above] and were invoked again by descriptions in the *Final Report on the Town Planning of the New Imperial Capital*:

The lay-out provides for the construction of ridge drives along the higher portions which will be connected through to the existing roads on the north Ridge by a thoroughfare constructed through the Sadar Bazaar. The views from these drives will be magnificent. The panorama of the present city, the new city and the monuments and cities of the past stretching below to the river as seen from the rough eminence past a foreground of rocks and trees should be one difficult to match for charm.⁸⁰

It is significant in this context that the aesthetic aspects of this urban forest were meant for the British rather than Indians. The ‘pleasing melancholy’ of ancient monuments and ruins terminating an avenue perspective or attracting attention at a distant *staffage* building also drew on the landscape aesthetics as developed in eighteenth-century England. Artificially constructed gothic castles (‘follies’), Greek and Roman monuments and Palladian bridges were used to simulate ancient monuments in English landscapes to provide ‘points of interest’ in English country-houses. A contemporary observer described the complementary character of the views of plenty and prosperity in their greatest perfection and the prospect of ruins and ancient monuments.⁸¹ It seems that New Delhi was the culmination and ultimate realization of this aesthetic splendour—uniting the emblematic as well as the expressive images of the historical monuments in a ‘modern’ setting.⁸²

Conclusion

From the very outset, the afforestation of the Delhi Ridge was meant to benefit the white population of the city. Unlike other earlier

⁸⁰ *Final Town Planning Report*, p. 4.

⁸¹ [William Gilpin], *A Dialogue Upon the Gardens of the Right Honourable the Lord Viscount Cobham at Stow in Buckinghamshire* (London, 1748), cited in Malcolm Andrews, *The Search for the Picturesque. Landscape Aesthetics and Tourism in Britain, 1750–1800* (Aldershot: Scolar Press, 1989), p. 48.

⁸² John D. Hunt, *Studies in the History of Landscape Architecture* (Cambridge, MA: MIT Press, 1992), ch. 3, pp. 75–102, 179–186.

afforestation schemes in Delhi and neighbouring Gurgaon, which were based on the cooperation of indigenous rural communities, the Delhi Ridge was to be afforested by marginalising the indigenous population. Although all urban populations seek to deal with environmental conditions that they consider to be problems, these features of afforestation schemes for the Delhi Ridge stamped it as a peculiarly colonial urban forestry project. Furthermore, although aesthetic functions tend to generally predominate in urban forests, the purpose that the Ridge forest served in enhancing the ornamental beauty of the city was also marked by imperial needs. These became explicit in 1911–13.

The arrangement of the urban forest on the Ridge, and the streets, buildings and monuments of the new city did not simply express aesthetic values but also buttressed the political implications of architecture and design. The plan for New Delhi with its novel street pattern was in contrast to the grid pattern of the numerous British stations, civil lines and cantonments. The single distinct form of New Delhi's street pattern reflects the totality of the British regime.⁸³ Although all urban environments are marked by the dialectical interdependence and tension between the human-made environment and the non-human natural world, the importance of the afforested Ridge to the New Delhi town-planning process was guided by the British rulers' imposition of an English visual perspective. The built environment of the city was meant to relate to natural features in a way that recreated the English garden landscape. This recreation reflected both nostalgia and the imposition of a colonial sense of order in which the British sensibility was given pre-eminence over the natural terrain of the region as well as over indigenous ideas of gardening. The growing predominance of aesthetic considerations within the afforestation scheme reflects this imperial aesthetic conception of Delhi. New Delhi was built for the British and was meant to provide a fitting symbolic setting to celebrate their Indian Empire and Indians were marginal to these concerns. The urban environment of imperial Delhi—both built and natural—epitomised distant rule by foreign people who used and arranged the space of the new city according to their understanding of good colonial government. The overall setting of the new capital amidst a green environment, enriched by historical monuments, turned New Delhi into a city with a view and, at the same time, reduced India to a stage.

⁸³ Nilsson, *New Capitals of India*, pp. 73–74.

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