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# **BEST AFTER RAIN: WATERFALL DISCHARGE AND THE TOURIST EXPERIENCE**

by

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[ CURRENT VERSION]

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## **Best after rain: waterfall discharge and the tourist experience**

### **Abstract**

Waterfalls attract tourists because they are aesthetically appealing landscape features that are not part of everyday experience. It is generally understood that falls are usually seen at their best when there is a copious flow of water, especially after heavy rain. Guidebooks often contain this observation when referring to waterfalls, sometimes warning readers that the flow may be severely reduced during dry periods. Indeed, many visitors are disappointed when they see falls at such times. Some are saddened when the discharge of a waterfall has been depleted by the abstraction of water upstream for power generation or other purposes. While, for those in search of the Sublime or merely the superlative, size is often important, small waterfalls can give great pleasure to lovers of landscape beauty. According to guidebooks, however, even these falls are usually best seen after rain. Drawing on tourist and travel literature and personal journals from the eighteenth century to the present, and with reference to examples from different parts of the world, this paper discusses the importance of discharge in the tourist experience of waterfalls.

**Keywords** : waterfalls, stream discharge, tourist attractions, landscape aesthetics

## Best after rain: waterfall discharge and the tourist experience

‘It is generally supposed that waterfalls are scarcely worth being looked at except after much rain, and that the more swollen the stream, the more fortunate the spectator; but this, however, is true only of large cataracts with sublime accompaniments, and not even these without some drawbacks.’

William Wordsworth, *Guide to the Lakes* (First published 1810; 1951 edition, p.135).

### Introduction: image and actuality

A character in a Graham Greene novel asks a fellow-traveller, ‘Going to see Iguazú Falls? Lots of people go there’, to which he receives the reply, ‘Are they worth a visit?’ He answers, ‘Maybe. If you like that kind of thing. Just a lot of water if you ask me’ (Greene 1980: 230). While there are some who share this lack of enthusiasm for waterfalls, as Greene’s fictional character himself observes, ‘lots of people’ go to see them, because, for many, ‘a lot of water’ falling from a height exerts a peculiar fascination. Hence, as ‘natural curiosities’ (Towner, 1996: 126), as ‘landmarks’ (MacCannell, 1976: 80) or as ‘sublime and beautiful objects’ (Hudson, 2001a), waterfalls have long been important tourist attractions in various parts of the world (Hudson 1998, 2000).

MacCannell (1976: 41) defined a tourist attraction as an empirical relationship between a *tourist*, a *sight* and a *marker*. Markers include guidebooks, on-site information, slide shows, travelogues and whole range of tourist literature, publicity and other material. Gunn (1988: 24) drew attention to the influential images from newspapers, periodicals and books, ‘Children’s geography and history books ... probably the most influential in the early formation of such images’. To this *organic* image level is later added *induced* images, in the form of advertising material, magazine articles, television promotions and the like. In his discussion of ‘tourist images’, Gunn (1988: 24-26) applied psychologist Jerome S. Bruner’s ‘three-phase process:- *hypothesis*, *input*, and *check*’ to tourism. Thus, when setting out to visit an attraction, a tourist has in mind an hypothesis or image of what to expect. On arrival, the visitor receives input or stimuli from the object or scene which is the attraction, and this experience is then checked against the expected image. Failure to come up to expectation can cause disappointment, and, as we shall see, this is a common experience among those who visit waterfalls. The following discussion examines the widely held view, commonly encountered in tourist and travel literature, that waterfalls are best seen when a large volume of water is passing over them, usually after heavy rain.

This view appears to apply to waterfalls large and small, the more modest scale of the latter not necessarily detracting from the aesthetic pleasure of the observer. Nevertheless, even small waterfalls, whose appeal derives from the delicate beauty of the cascading stream in its picturesque, setting are commonly thought to be seen at their best after rain, and may fail to impress when the flow is slight. I have often experienced disappointment of this kind, for example, at the famous Lodore Falls, England (celebrated by the Lake Poets), Yosemite Falls, California (among the world's highest), and Barron Falls, Queensland, Australia's greatest cataract until depleted by a power and irrigation project. No doubt, many readers have had similar experience. If, as Gunn (1994: 349) asserts, 'visitor satisfaction is the true tourism product', it is a matter of some importance.

As Urry (1990: 11) explained, 'Tourism results from a basic binary division between the ordinary/everyday and the extraordinary.' Thus, tourists often go to visit 'features of the landscape and townscape which separate them off from everyday experience' (Urry 1990: 3). Among these are the wonders of wild nature and objects, natural or otherwise, of exceptional size, lofty mountains and huge buildings, for example. Waterfalls are landforms of limited occurrence, natural curiosities which are rare or absent entirely across most of the inhabited world. Moreover, even in the remote and relatively inaccessible places where they are most common, they are often hidden from view in deep, commonly wooded ravines (Hudson 2001b). Here they tumble over rugged rocks in ceaseless tumult, dramatically symbolizing 'natural, wild nature', many developed waterfall attractions also appealing to those who prefer 'organized, signposted, cultivated nature' (Bourdieu 1984: 220). For these reasons alone, they are suitable objects for what Urry (1990) calls 'the tourist gaze'. Some falls, notable for their exceptional size in terms of their height and or volume, may even qualify as landmarks. Furthermore, waterfalls display a variety of visual characteristics and sounds that together make them particularly attractive to the beholder (Hudson 2000). The focus of this paper, however, is on the significance of scale in the visitor's experience of waterfalls. In particular, it considers the question of discharge or volume of water as it relates to the way in which waterfalls are perceived. The discussion draws on a variety of sources, including travel literature and guidebooks, which are markers that help create the tourist image, and personal journals which record individual response to the actual sight, as well as the 'expert' opinions of scholars, explorers and professional writers. In order to achieve some historical and geographical balance, I have drawn examples from the eighteenth century to the present, and from

several different countries. These include Britain, USA, Australia, Jamaica and other places in some of which I have conducted waterfall research. Much of the work for this paper having been done in northern England, there is some emphasis on the falls and literature of that region. This introductory study is intended to lay the groundwork for possible future empirical research that may throw light on tourists' responses to natural landscape features in changing conditions.

### **Volume, height and width**

Writers on the aesthetics of waterfalls generally agree that the human response to these landscape features is at least partly influenced by their magnitude in terms of volume, height and width, together with the powerful roar which a large cataract generates (Barton 1974; Hudson 2000; Pearl 1973; Plumb 1993; Rashleigh 1935). In Rashleigh's (1935: 16) words, 'The main factors to be taken into account in any estimate of the pre-eminence, or otherwise, of a waterfall are volume, height and width; and of these the first two are surely the more important, mere extent being a secondary consideration.' To these three criteria Plumb (1993: 261) adds 'verticality', and he used combinations of all four variables to construct a 'scale for comparing the visual magnitude of waterfalls'.

While it is recognized that size, by any of these measurements, is not the only factor that determines the appeal of a waterfall, descriptions in reference books and in travel and tourist literature generally confirm its importance. Moreover, people are interested in superlatives, a fact attested by the enormous sales of reference books on this subject. We often read that a certain waterfall is among the highest in the world, country or state, or that another is notable for the large quantity of water that plunges over. A waterfall that combines great volume and height is one of nature's most powerful spectacles, a sight that can evoke profound emotional response in the observer. In New Zealand, a country abounding in waterfalls, probably the two most famous are the Sutherland Falls, one of the world's highest, and Huka Falls, which, though of no great height or width, is remarkable for its volume and velocity. Perhaps 'the most extraordinary waterfall in the world' (Huxley 1966: 178), Africa's Kabarega or Murchison Falls, is notable for neither its height nor great width. It is the enormous volume of water seething down its confined sloping channel that creates this astonishing spectacle on Uganda's Upper Nile. Niagara Falls, too, are not high by world standards, but they are very wide, and are most

remarkable for their vast discharge, even after the abstraction of half or more of the water for power generation.

### **Best after rain?**

The importance of volume or discharge for those who take delight in waterfalls is most clearly evidenced in tourist guidebooks and personal accounts of visits. Thomas West, the eighteenth century author of a guide to the English Lake District, observed, 'In mountainous countries, cascades, waterfalls, and cataracts, are frequent, but only seen in high perfection when in full torrent, and that is in wet weather, or soon after it' (West 1784: 76). Referring to the much over-rated Lodore Falls beside Derwentwater, West (1784: 91) wrote, 'This is the Niagara of the lake ... It is the misfortune of this celebrated waterfall to fail entirely in the dry season.' Visitors are often disappointed when they arrive at Lakeland waterfalls when the flow is slight. When Thomas Gray visited Lodore Falls in 1769, he observed that, 'the quantity of water was not great, though (these three days excepted) it had rained daily in the hills for near two months before' (Gray 1902: 255). Later, an anonymous diarist, who visited the English Lake District in 1844, recorded in a journal, '... we toiled up to Dungeon Gill and found it like the rest of the Cascades – rather in want of water' (Anonymous 1844: 41). In England it is not only Lake District waterfalls that need good rain in order to be seen to advantage. The following quotations from nineteenth and twentieth century guidebooks are typical. Referring to the popular Falls Walk, near the Yorkshire Dales tourist centre of Ingleton, a guide published in 1895 notes, 'After heavy rain, when there is a fresh from the mountains, the numerous waterfalls present a grand spectacle' (Speight 1895: 166). A century later the same walk is described in another guidebook in which the reader is told that '...the waterfalls are at their best after rain' (Sellers 1992: 176). In another Victorian guidebook description of a pretty little waterfall, Goathland Mill Foss near Whitby, we read, 'After heavy rains, this fall has a majestic and interesting appearance' (Reed 1857: 76). Mary Welsh, author of many guides to waterfalls in northern England, described the falls on Kilhope Burn, Durham, as 'spectacular in May, when the volume of water is slight, and which must be even more spectacular when in spate' (Welsh 1994: 41). It should be noted that this writer and experienced observer of British waterfalls makes the assumption that the sight of these modest falls will be enhanced when the volume of flow is increased by heavy rain.

Similar comments abound in topographical, travel and tourist literature about other parts of the world where waterfalls are found. Describing what may be the highest waterfall in North Carolina, one writer warns, 'Except during very wet conditions', Glassmine Falls is not very impressive, noting that 'During dry periods, it is nothing more than a trickle, and it may dry up completely at times'. He adds the comment that 'it can be argued that this is not a true waterfall' (Adams, 1994: 158). Similarly, in his account of Big Fiddler Creek Falls, 'the highest officially measured waterfall in Idaho', another writer notes, 'Unfortunately, the creek is seasonal and its display is usually dry during summer' (Plumb, 1989: 222). In his starred rating system, the author gives this lofty but meagre fall two out of a possible five, which signifies '**Pretty**. Nice background for a picnic' (Plumb 1989: 13). The gigantic falls of California's Yosemite Valley are so reduced in volume during the dry season as to disappoint some visitors who come anticipating the spectacular scenes frequently depicted in books and brochures. Indeed, several of them disappear completely at times, and there have been proposals to address this problem, a matter to which we return later in this essay. Towards the extreme of the ephemeral class of falls are the spectacular cascading torrents that appear briefly on Uluru or Ayer's Rock after exceptional rain in arid central Australia. Even in the wetter areas, extreme seasonal variation is typical of Australian waterfalls. When the two mid-nineteenth century travellers, Mossman and Banister saw the famous Wentworth Falls in Australia's Blue Mountains, they 'were rather disappointed at the small volume of water it displayed, scarcely sufficient', in their view, 'to be considered a waterfall' (Mossman and Banister 1853: 250-251).

Some great cataracts maintain a large flow of water throughout the year, but even these are likely to impress the visitor most at times of flood. One of the world's greatest is Kaieteur Falls on the Potaro River in Guyana. A nineteenth century traveller recorded his impressions of two separate visits to this remarkable waterfall. On the first occasion the sight was, in his words, 'beautiful and terrible'. His second visit was at the end of the rainy season when, at the brink of the falls, the swollen river was thrice the previous width, tumbling over the precipice as an 'indescribable, almost inconceivable, vast curtain of water' (Aspinall 1935: 402). While increased discharge commonly increases sediment load, with consequent change in the colour of the falling water, this is something that receives very little



comment in the literature, suggesting that it is a matter of no great concern among those interested in the aesthetics of waterfalls.

### **Too much water ... for the beauty of the falls**

In the light of the foregoing discussion, it is particularly interesting to note explorer John Oxley's reaction when, in 1818, he saw the falls on the Apsley River, New South Wales. In his journal he recorded his view that, while a greater volume of water might have created 'a more awfully grand' spectacle, it would have been 'not so beautiful' (Oxley 1820: 299). A similar view was expressed by Dorothy Wordsworth who, on seeing Aysgarth Falls, Yorkshire, in 1802, wrote in her journal, 'There was too much water in the river for the beauty of the falls' (Wordsworth 1941: 181). During normal periods, these falls on the River Ure are seen as an exquisite series of wide cascades in the form of a natural staircase, but after heavy rain they become a seething mass of water surging down a slope, their step-like formation lost beneath the swollen torrent. From her journal entry, it seems that Dorothy Wordsworth would have preferred to see Aysgarth Falls with less water. John Oxley, on the other hand, merely indicated that with more water in the Apsley River, the falls there would have presented a grander, more awe-inspiring sight, one that might be considered less beautiful, though not necessarily less appealing in aesthetic terms.

The distinction being made here is between the Beautiful and the Sublime, something with which eighteenth and nineteenth century travellers of taste and refinement were very familiar. As Edmund Burke explained, the characteristics of the Beautiful include smallness, smoothness, gradual variation, lightness and delicacy, while the Sublime is associated with vastness, massiveness, ruggedness, darkness and gloom (Burke 1757). How these qualities relate to waterfalls has been discussed elsewhere (Hudson 2000). It can be seen at once, however, that, in Burke's terms, a large waterfall or cataract, particularly one that combines enormous volume with great height, is likely to be considered sublime rather than beautiful. In contrast, a delicate little cascade, though undeniably beautiful, may lack the scale required to achieve sublimity. Caution is necessary when making aesthetic judgements of this kind, and it is important to remember the more subtle qualities of landscape that evoke response in the observer. As Dorothy Wordsworth's brother, William, observed in his *Guide to the Lakes*, 'the

sense of sublimity depends more upon form and relation of objects to each other than to actual magnitude' (Wordsworth 1951: 137). Referring to the discharge of a waterfall, the poet expressed his strong disagreement with the widely held view 'that the more swollen the stream the more fortunate the spectator' (Wordsworth 1951: 135).

### **The small but bonny waterfall**

In the world of waterfalls, as in that of paintings and music, miniatures have their place. These more modest examples often give pleasure of a kind very different from that experienced in the presence of the grand, but no less delightful. William Wordsworth noted 'that the principal charm of the smaller waterfalls or cascades consists in certain proportions of form and affinities of colour, among the component parts of the scene; and in the contrast maintained between the falling water and that which is apparently at rest, or rather settling gradually into quiet in the pool below' (Wordsworth 1951: 135). In his Lake District guidebook, West mentioned one such 'sweet scene', quoting the words of William Mason to describe a 'small fall of water near Rydal': 'Here Nature has performed every thing in little that she usually executes in her larger scale; and on that account, like the miniature painter, seems to have finished every part of it in a studied manner ... the little central current dashing down a cleft produc[ing] an effect of light and shadow beautiful beyond description ...' (West 1784: 78).

One of today's most prolific writers on waterfalls, Mary Welsh, also has an appreciation of landscape beauty in miniature, noting, for example, 'the small but bonny waterfall' on one of the minor tributaries of the Tees (Welsh 1994: 104-105). Indeed, most of the falls which this author describes in her little books on waterfall walks in the north of England are small, even by British standards. Nevertheless, they clearly give great delight to her and, no doubt, to those who follow in her footsteps. Even at this miniature scale, however, while 'All four falls on the pretty Rookhope are dramatic even after a long dry spell ... [a]fter rain they are magnificent' (Welsh 1994: 70).

### **Human interference with flow**

Some have argued that a permanent reduction in the volume of water passing over a great cataract would not harm, and in some cases would even enhance the beauty of the scene. Not surprisingly, this

idea is mainly associated with campaigns in support of schemes to harness the energy of large waterfalls. Among the examples mentioned by Rashleigh are the harnessing of Niagara and the Falls of Foyers. Rashleigh quoted extensively from a pamphlet titled, *Niagara Falls: Its Power Possibilities and Preservation*, by a Mr. Samuel S. Wyer, 'a staunch advocate of the greatest possible diversion for power' (Rashleigh 1935: 81). According to Wyer, as quoted by Rashleigh (1935: 81-82), 'The height of the falls and not the volume of water is the controlling feature of the grandeur impression that is made on the spectator', the main visual qualities being 'the continuous high, clearly visible sheet of water [rather than] ... a mere wild, broken tumbling mass'. Among the suggested advantages of a diminished volume of water passing over Niagara Falls was the reduction of spray which, it was argued, obscured the view of the great cataract. Emphasising, the overwhelming importance of discharge at Niagara, Rashleigh (1935: 82) dismissed these ideas as 'ludicrous'. His indignation at the spoliation of so many of the world's great waterfalls by hydro-electric power schemes is evident throughout his book. With reference to Scotland's celebrated Falls of Foyers, 'today so depleted as scarcely any longer to be worth seeing', he wrote, 'At the time when they were about to be harnessed, it is recorded that an agent of the Company in question made the priceless statement that "the falls will not be injured, only there will be no water in them!"' (Rashleigh 1935: 274). Most people would probably agree that the abstraction of a large proportion of the flow normally injures the scenic qualities of a waterfall. The example of Queens Falls, North Carolina, is quite typical. 'Years ago, this was undoubtedly a beautiful waterfall with a heavy flow of water. Now, the flow has been severely restricted by the Queens Reservoir. The falls are nearly overgrown with vegetation, and a water pipe and a power line are in the view' (Adams 1994: 126). In his rating system, Adams gives this degraded waterfall one point out of the possible maximum of ten.

There are some rare instances when there may be too much water for the full enjoyment of a waterfall, as when there is so much spray that the fall itself and much of the setting becomes invisible. This situation occurs at Victoria Falls during the height of the wet season. Even when the scene is largely obscured by spray, however, '... it is this baffling veil of mist which invests the falls as a whole with a peculiar sense of infinity' (Rashleigh 1935: 147). Moreover, at times such as these the visitor can, perhaps, better appreciate the experience by other senses in addition to sight - hearing the roar and

thunder of the tumbling waters, and feeling the cool wet spray on the skin as the mist swirls about, possibly even sensing the ground's vibration in response to the pounding flood.

In a few cases, rather than reduce the discharge of waterfalls, there have been suggestions to increase it, or at least regulate the flow in such a way as to maintain a good volume during dry periods. Ideas such as these reflect interests within the tourist industry. Recognizing the importance of discharge in the scenic quality of waterfalls, some have suggested augmenting the natural flow by diverting other watercourses into the streams that feed certain falls, or regulating them with dams upstream which would release stored water in dry seasons. Works of this kind have been proposed for some of the falls in California's Yosemite National Park where stream flows are often at their lowest levels during those months when it is most convenient for tourists to visit the area (Runte 1987: 166). Stream diversion has also been suggested as a means to maintain a copious flow of water at Jamaica's famous Dunn's River Falls, a major tourist attraction now under severe environmental threat (Hudson 2001a) For many lovers of natural scenery, however, the manipulation and regulation of waterfalls in this way would detract from the aesthetic experience of place and landscape. The mere knowledge that what they were seeing was not entirely 'Nature's' work would be enough to diminish the pleasure, however unobtrusive and well designed the dams, flumes and other structures needed to store, divert and channel water. Edmund Vale expressed similar sentiments when writing about the conversion of Llyn Anafon, Wales, into a reservoir: 'you know that your lake is not really wild' (Vale 1938: 264). Likewise, a waterfall regulated in this manner ceases to be wild, and takes on something of the character of the artificial falls commonly seen in cities.

In the case of falls that have been depleted by the diversion of all or part of the flow for hydro-power or other schemes, the controlled return of water into the upstream channel fails to restore the river to a state of wild nature. It does, however, re-create the spectacle of a full flow of water tumbling over the falls, creating an impressive sight for spectators to enjoy. Spectacles of this kind are staged from time to time at several waterfall sites around the world, including Trollhatten Falls, Sweden and Maria Cristina Falls in the Philippines. Niagara Falls, now reduced to only a half or less of the original discharge, is the subject of a campaign which seeks to restore the full flow of water for short periods on a regular basis (Ensminger 2000).

## **Conclusion**

While some may prefer the sublime experience of a great waterfall to the beauty of a lesser cascade, many people take pleasure in both. The fact remains, however, that, for falls large and small, there is a common preference for flows in the upper range of stream capacity. Images of waterfalls found in travel and tourist literature and promotional material usually show them in full flow, very rarely when the discharge is slight. Guidebooks also reflect and reinforce this preference by advising readers that falls are best seen when the flow is heavy, particularly after rain. It is not surprising, therefore, that visitors to waterfalls are often disappointed when, on arrival, they find that the quantity of water descending is less than they expected, whatever the size of the fall. This experience is most likely when the main tourist season coincides with the driest time of year. For some with interests in tourism, this is a matter of sufficient concern to warrant human intervention, including the suggested diversion, storage and controlled release of water at some popular waterfall attractions. Indeed, in the case of several degraded falls on rivers that have been harnessed for hydro electric power generation or other purposes, flows are restored periodically to create a temporary spectacle to satisfy the tourist gaze. For travellers in search of authentic 'wild nature', human interference and staged spectacles of this kind may be unsatisfactory, but tourists who are content with 'organized nature' are likely to accept these arrangements happily. We may expect the latter to be especially prone to disappointment when the display of nature's splendour fails to come up to expectation. Others, particularly those who make frequent excursions into the countryside or wilderness, often take great delight in the changing landscape as it reflects the seasons and variety of weather conditions. For these, much of the pleasure of 'waterfalling' comes from experiencing them at various times under different conditions, the changing sights and sounds reflecting the dynamic processes and cycles of nature.

## **Discussion**

Lovers of natural scenery can usually take pleasure in the experience of both the Beautiful and the Sublime, and for this reason, most, if not all waterfalls, whatever their size, can give pleasure to those who see them. If we accept this, why is it such a widely expressed view that waterfalls are best seen in spate? One possible answer may relate to the exceptional, something to do with 'features of the landscape ... which separate [us] from everyday experience' (Urry 1990: 3). After heavy rain a

waterfall is likely to be much larger than usual in terms of volume and, probably, width. Many rivers and streams on which falls occur flood rapidly in response to rain, but their waters may be just as quick to subside after running high for a short period. Consequently, the sight of a waterfall in full spate is a relatively rare privilege, one that many tourists, attracted by dramatic images in books and brochures, aspire to enjoy. Falls which generally maintain a large discharge at all times are likely to be particularly popular with tourists, all the more so because they are relatively rare. Probably, one of the world's most popular waterfall attractions is Jamaica's Dunn's River Falls, which, while of no great size, maintains a fairly constant flow throughout the year, being fed by water from a large limestone aquifer (Hudson 1998; 1999). Among the world's gigantic waterfalls that attract millions of tourists, Niagara Falls are exceptional for both their total discharge and the constancy of the flow that is regulated by the natural reservoirs of the Great Lakes system.

While most visitors would probably consider Dunn's River Falls beautiful, few today are likely to think it sublime, especially when it is seen with hundreds of tourists cavorting in the water and climbing the cascades. Niagara, however, despite the reduction in discharge and the commercialization, remains a sublime sight. Waterfalls, great and small, sublime or beautiful, even pretty or charming, undoubtedly possess a wide appeal that makes them very popular tourist attractions; but, as we have seen, they often disappoint the visitor when the discharge is not up to expectation. The question remains, Why is it that, while a little waterfall, as well as a large one, can give aesthetic pleasure, there appears to be a general preference for an above normal rate of discharge?

With the possible exception of falls formed by glacial or marine erosion, perhaps the answer has something to do with the relationship between channel size and stream flow. Falls are commonly formed by fluvial erosion, and most of the erosive work of rivers and streams is done during periods of heavy flow. The form of the channel, including the profile, reflects this. It is possible, therefore, that, as a general rule, waterfalls do not achieve their best or most fitting shape or form until the stream channel is occupied by the normal maximum flow. With less than this, large areas of the stream bed and rock face are exposed, and the waterfall may appear as a misfit, disproportionately small in relation to its immediate setting. This situation, common enough in nature, is an inevitable consequence when water is abstracted upstream. Conversely, an abnormally high flow, while creating a sublime spectacle,

may detract from the beauty of a waterfall by its overwhelming flood which temporarily obscures its characteristic form. No doubt, this hypothesis can be tested empirically with different groups of people, using images of waterfalls under various conditions of stream flow. Meanwhile, for many of us, much of the aesthetic enjoyment of waterfalls comes from their variation over time, as they change from season to season, day to day, even hour to hour. As the volume of water varies in response to the weather, so does the visual form of the falling water and the sounds it makes. These are pleasures that can be best enjoyed by the regular country or wilderness walker rather than the hurried tourist on a day trip. For the latter, an eagerly anticipated visit to famous waterfall may be a disappointing experience unless there happens to be a copious flow at the time.

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