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## TYPES OF MOUNTAIN SCENERY.

## AN ADDRESS

Delivered to the Cairngorm Club by The Right Hon. James Bryce, D.C.L., M.P., President of the Club, on 22nd November, 1899.

Mr. Bryce, who was, as usual, cordially received, said that the subject about which the Committee of the Club had wished him to speak to them was different types of mountain scenery. He pointed out that different kinds of mountain scenery made totally different impressions upon them, and, therefore, what he wanted to do that night was to ask them to join in considering what basis of classification they could find under which they could arrange the various forms and aspects of mountain scenery. There were three elements that went to make scenery impressive or effective. The first was height, the second line, and the third colour. Height seemed to him to produce awe, line gave dignity, and colour beauty; not, of course, but what there was also beauty in line, and dignity in colour. Of these three, height was, in the general effectiveness of mountain scenery, much the least important. Although they were very apt to classify mountains according to their height, and to think that the highest mountains were the grandest, yet it was much more the happy combination of the two elements of line and colour that gave the greatest impressiveness to

Indeed, artists, who would be admitted to be the highest authority on those subjects, rather scouted height as an element in landscape beauty. They said that great height made a thing unpaintable, and they preferred to rely upon line and even more upon colour. Line was that which chiefly gave the sense of nobility or grace in form; and colour, of course, was that which gave richness, and which more than anything else raised emotion. On the other hand, it deserved to be noticed that people differed greatly in their power of appreciating the beauty of colour, and consequently in their susceptibility to the emotions it Taking those three elements, he proceeded to examine and classify the physical causes which went to create the different types in mountain scenery. might, he thought, reduce them to two-climate and rock Climate, of course, included everything that affected and went to modify the action of the atmosphere, and rock structure the different kinds of rock which they should have to consider a little more in detail. affected scenery in three ways. In the first instance, it gave them the distinction between snowy and unsnowed mountains. There was a great deal of question as to the beauty Certainly to have a landscape of bare snow mixed with rock was not a very beautiful thing in a picture. snowy type of mountains was best seen in the Alps, and the reason for that was because the scale in which the Alps are built is small enough to bring every element of landscape beauty into juxtaposition with pasture and woods. did not get that in the Himalayas, whose scale was gigantic. It was perfectly true, as Sir Joseph Hooker had said, that the Himalayas were much more magnificent than the Alps, but much less beautiful. Though no snow and ice scenery was more perfect than that of the Alps, there were also some beautiful glaciers in the Canadian Rocky Mountains and in the Caucasus, while those of the Pyrenees were comparatively few and small. In parts of the Andes there were huge glaciers, but, taken all in all, that gigantic range seemed less rich in beauty than the Himalaya or (allowing for its smaller size) the Caucasus.

second element in climate was the comparative moisture or dryness of the mountain region. The chief result of the difference between wet and dry climate was the vegetation that clothed the surface of the mountains, and therefore the wet or dry climate might be said to give them clothed or bare mountains. He illustrated the different character of mountain forests from the Italian valleys of Monte Rosa and the majestic pine forests of the Cascade range. These were totally different in character and produced different scenic effects. Lastly, climate gave types of mountain scenery in the greater or less quantity of water which it brought into the landscape. In many mountain ranges there was practically no water at all, as, for instance, the mountains of the Sinai Peninsula and the Egyptian Desert, which to anyone accustomed to our own country were defective from their lack of water. The same was the case in Spain, Asia Minor, and in the very striking mountains of Mashonaland. It was also the case, if he might judge from the recently published account of that region by Mr. Fitzgerald, the case with regard to the great mountain masses round Aconcagua, the loftiest summit in the two American Continents. He came next to the other principal element besides climate in giving different mountain types—the element of rocks; and he confined himself to three types of these—(1) the metamorphic and palaeozoic, including the silurian and mica slates and mica schists, and the gneiss of Norway; (2) the limestones; and (3) the igneous rock. With regard to the mountain scenery characteristic of the first group, he noted its extraordinary picturesqueness and variety and deep colours. The forms were wild, rugged, and diversified, but they were seldom majestic, though some of the gneissose peaks of Norway did attain grandeur. The limestone mountains, on the other hand, were of an entirely different type. Two forms were to be seen in this connection—one with a range of precipices, pretty uniform, with a sort of table on the top, and the other showing very bold spires of rock, rising sharply into the sky, and sometimes apparently inaccessible. nothing in Scotland characteristic of the limestone formation. There was a little in England, in the West Riding of Yorkshire, and a little in Ireland. Anyone who wanted to see this type of mountain scenery to perfection must go abroad, and particularly to the region of the Venetian Alps or of the Salzkammergut. One of the charms, he noted, of limestone mountains was that they bear very rich vegetation, with a great many plants not found anywhere else; and, further, their water was notable for its peculiar purity and vividness of blue—characteristics which, he suggested, might be, in the case of the Lake of Geneva, due to the presence in the water of exceedingly small particles of lime. It was worth remarking that in limestone mountains there was little or no water to be found on the higher levels, while copious and brilliantly-clear springs gushed out at the base of the crags which usually enclosed the valleys. Coming next to the igneous rock series, he divided it into three groups, each presenting a different mountain form—(1) granite and the rocks akin to it, such as porphyry, (2) trap and basalt, and (3) volcanic rocks. Granite, however, produced more than one type of mountain scenery. had a habit of appearing in two forms—the one in spires and crags, the other in huge, almost flat bosses. The type of the crags and spires is to be admirably seen in Arran; nor were the hypersthene pinnacles of Skye less remarkable for their boldness of form. The granitic Tatra group, on the borders of Hungary and Poland, presented a similar character, and deserved to be much better known than it The boss character of scenery was frequently seen in our own Cairngorms. So much was this the character of the Cairngorms that one could almost drive a carriage and four to the top of Ben Muich Dhui from Braemar. There might be one point or two where the gradient was sufficiently steep to make it a little bit of a pull on the horses-(laughter)—but, speaking broadly, there were no very high angles on one of the roads, and the surface, apart from the granite blocks which strew it, presented no great obstacle to a strong team. The beauty of granite mountain scenery when it takes the form of these great bosses, as in the Cairngorms, was to be found in the huge precipices that over-

hung the valleys. Those of them who knew Loch Avon, whose waters he believed we should in a few years be drinking-(laughter)-knew how magnificent are the granite crags that hang round it. The mountains of this type went down with stupendous irregular crags, projecting and receding, throwing themselves backward and forward, very dark in colour, and some with little gorges and ravines through which water trickled, and gave that solemnity and impressiveness which perhaps exceeded that of any other kind of precipice effect. Having pointed to the basaltic mountains as having the character of flatness on the top, with precipitous sides, the lecturer came to deal lastly with the volcanic series, when he touched on the manner of formation and the influence which the more or less fluidity of the lava had in producing a sharp or a low angle of mountain side, illustrating his remarks by references to the volcanoes of the Hawaiian Islands and Mount Ararat. noted how these different types of rocks influenced colour the characteristic shade of limestone being grey, though in the Venetian Alps the rock faces were often red or yellow; the slate mountains, generally speaking, blue; and volcanic mountains black, though the black aspect sometimes, as in the grand and solemn mountains of Iceland, passed into splendid dark purples. In closing, he remarked that Scotland, small as it is, contained a great variety both of crystalline and igneous rocks, and that few countries had a greater variety of mountain scenery. It was not so much size, therefore, as variety of form and colour that made the beauty of mountain scenery, and tended to those effects which made the mountains most imaginative, most suitable for the artist, and most impressive and suggestive to the mind of the poet-(loud applause).