

tenings of the earth, are, as we shall find, different in age, character, and conditions; and the Atlantic, though the smaller, is the older, and, from the geological point of view, in some respects, the more important of the two; while, by virtue of its lower borders and gentler slope, it is, though the smaller basin, the recipient of the greater rivers, and of a proportionately great amount of the drainage of the land.<sup>1</sup>

If our imaginary observer had the means of knowing anything of the rock formations of the continents, he would notice that those bounding the North Atlantic are, in general, of great age—some belonging to the Laurentian system. On the other hand, he would see that many of the mountain ranges along the Pacific are comparatively new, and that modern igneous action occurs in connection with them. Thus he might see in the Atlantic, though comparatively narrow, a more ancient feature of the earth's surface; while the Pacific belongs to more modern times. But he would note, in connection with this, that the oldest rocks of the great continental masses are mostly toward their northern ends; and that the borders of the northern ring of land, and certain ridges extending southward from it, constitute the most ancient and permanent elevations of the earth's crust, though now greatly surpassed by mountains of more recent age nearer the equator, so that the continents of the northern hemisphere seem to have grown progressively from north to south.

If the attention of our observer were directed to more modern processes, he might notice that while the antarctic continent freely discharges its burden of ice to the ocean north of it, the arctic ice has fewer outlets, and that it mainly discharges itself through the North Atlantic, where also the great mass of Greenland stands as a huge condenser and cooler,

<sup>1</sup> Mr. Mellard Reade, in two Presidential addresses before the Geological Society of Liverpool, has illustrated this point and its geological consequences.