titude in Africa, the Kalahari Desert extended over the whole western half of the continent, and even beyond. In our continent the dry zone passed from west to east, through the very centre, between the summer rains of the tropics and the winter rains of the more southern latitude, with the exception of a narrow strip of the eastern coast, which was watered by the winds from the sea, condensing rather scanty and irregular rains on the Blue Mountains and the Australian Alps. Among the causes which governed the fall of rain the course of the prevailing winds occupied the first place, and a due consideration of the normal movements of the atmosphere in the latitudes of the dry zone would account for the scarcity of rain in it. These winds belonged to two classes—Firstly, those which formed a part of the general circulation of the atmosphere, resulting from the spherical form of the globe and its rotation on its axis. To the influence of these must be attributed the low rainfall in the dry zones. Secondly, those mainly due to the relative distribution of continents and oceans, and participating, therefore, in the nature of monsoons. To these the abundant rains in the well-watered eastern portions of the same zone, which interrupt the continuity of the dry lands, must be attributed. The operation of these causes was as follows:—Primary circulation of the atmosphere, which arose from difference of temperature between the tropics and cold regions of the globe, had its origin in the broad ascending current, which under the influence of a powerful equatorial sun, started from the belt of calms. The vast ascending masses of air overflowed on both sides towards the temperate zones, causing an accumulation of air at about 30 degrees latitude, enhanced still more by the decrease of pressure over the areas polewards. Here existed a belt of high barometric pressure—the highest on the earth's surface—and from this belt the air divided, flowing downwards both ways. A portion returned to the tropics, became a part of the trade-winds, and ascended in the belt of calms, making a complete circuit. The second part flowed polewards, and became the anti-trades—the north-westerly winds characteristic of our region. At first sight the occurrence of north winds, especially during our summer months, seemed a meteorological paradox, as in accordance with elementary mechanical laws the wind blows from where the air is cold to where it is warm. But a disturbing effect was produced by inequality of atmospheric pressure; thus winds would occur in two regions of low barometer, while flows of air proceeded from a region of high barometer. The first of the descending currents from the equatorial flow brought drought; the second was the principal source of the rains in the temperate latitudes. Singular it was that these two branches of the same air-current should have so different an effect or aqueous condensation. Both were dry winds for a descending wind forced into a region of greater pressure would contract, and in doing so the latent heat which it had absorbed in ascending reappeared and increased its tem-
AUSTRALIAN GEOGRAPHY.

The Lecture room at the University was moderately filled when the young men and others to hear Professor Tate, F.G.S., F.L.S., deliver the first of a course of lectures on "The Climate and Drainage of Australia." After a lengthy prelude, in which he indulged a meretricious criticism of a new map, the Professor proceeded to state that in the course of lectures he proposed giving he would place before the audience a series of maps which would correct the erroneous statements contained in the manual alluded to, and would enable them, he hoped, to form a just conception of the character and climatic conditions which prevailed in the Australian regions. Starting with the observation that the only animals which were indispensable to animal and vegetable life, the Professor proceeded to point out the necessity of protection from the elements of cold in the polar regions, as the globe was subject to the greatest irregularities, the general law being that the quantity of rain on the whole decreased with the increase of the distance from the equatorial towards the poles, because the warmer the air the greater was its capacity for holding water; and that, excepting a remarkable interruption in Australia a little beyond the tropics, where the quantity of the rains was subject to great variation, and on the polar side the copious winter rains of the warm temperate regions, Australia, however, showed a distribution of rain similar to that of other parts of the world. In the interior of Australia the rains were far from being the same as those of the meridional belt, the general climate being considerably more intense in the interior, and the rains were very much less copious and more uncertain in their occurrence.

Throughout the course the Professor was ever careful to point out the truth that the character of the climate was determined not only by the position of the land, but by the position of the sea, the position of the belt of equator, the influence of the mountains, and the position of the continents. In this connection he drew attention to the peculiarities of the climate of the island of New Guinea, the climate of the islands of the Malay Archipelago, the climate of the islands of the Pacific, the climate of the Mediterranean Sea, and the climate of the North Sea. The climate of the Mediterranean Sea was characterized by a warm, dry summer and a mild, rainy winter, while the climate of the North Sea was characterized by a cool, humid summer and a cold, dry winter. The climate of the islands of the Malay Archipelago was characterized by a hot, humid climate, while the climate of the islands of the Pacific was characterized by a warm, humid climate.

The climate of Australia was characterized by a hot, dry summer and a mild, rainy winter, while the climate of the interior of Australia was characterized by a hot, dry climate. The climate of the interior of Australia was characterized by a hot, dry climate, while the climate of the southern part of the continent was characterized by a cool, humid climate. The climate of the southern part of the continent was characterized by a cool, humid climate, while the climate of the eastern part of the continent was characterized by a hot, dry climate. The climate of the eastern part of the continent was characterized by a hot, dry climate, while the climate of the western part of the continent was characterized by a cool, humid climate. The climate of the western part of the continent was characterized by a cool, humid climate.

In conclusion, the Professor pointed out the importance of the study of climate, and the necessity of the study of the influence of the climate on the development of the plant and animal life of the country. He closed the lecture by expressing his hope that the students would make the most of the opportunity of studying the subject, and by warning them against the danger of being misled by the superficial appearance of things.