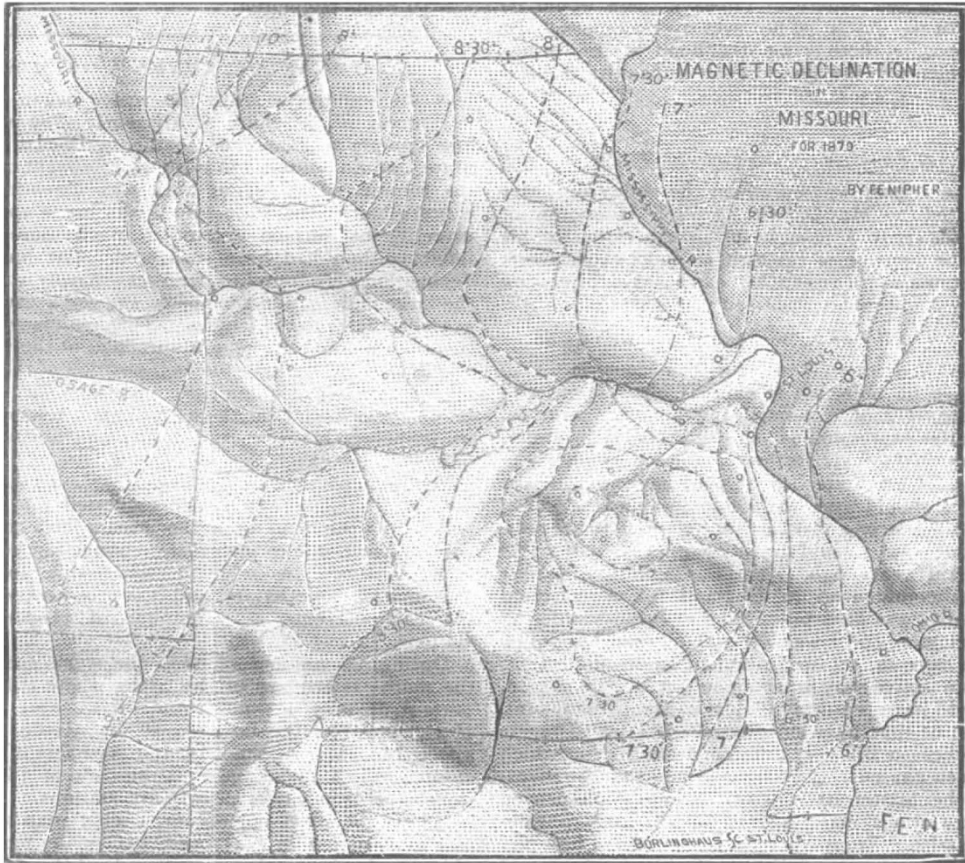


greatest difference in elevation in the State would be represented by a vertical height of one inch. The horizontal scale of the cut is sixty-two miles to the inch.

The map represents only the grand outlines of surface as obtained from railroad profiles, and barometrical measurements. The dotted lines on the map are lines of equal variation of the magnetic needle: thus, on every part of the line marked 8° , the needle points 8° east of north, &c. These lines are drawn to represent the observations already made, and show in a general way the variation of the needle in the State. The map also shows that there is a marked relation between the direction of these lines and the contour of the surface. It cannot be said that it shows what this relation is, but it is probably due largely to the deflection of the stream lines of the earth current sheet, caused by unequal conducting power. This explanation necessitates the existence of

looped areas in certain regions in the State, the existence of which is already indicated by the determinations. The loop in the $7^\circ 30'$ line, with its inclosed minimum, is probably complicated with the iron deposits in that region of the State.

Three stations in the Missouri valley have been inadvertently omitted in the cut. One of these (Corrollton) lies on the $8^\circ 30'$ line, a few miles north of the river. Another (Glasgow) lies on the river a little south of east from Corrollton. The third (Columbia) lies just east of the 8° line, and about south-east from Corrollton. A fourth station omitted, is nearly due east of the southern terminus of the 8° line, and just outside the $7^\circ 30'$ loop. The other stations, represented by the small circles, are shown on the cut, and an inspection of the map will show the weight to be given to different parts of these lines. At stations situated at points of abrupt curvature of the



lines, the observations have been repeated at various localities in the region, until it was clear that no minute local effects existed.

The value in the Iron Mountain region is the mean of many hundreds of determinations made with a solar compass by Pumpelly and Moore in 1872. This region is in the east part of the $7^\circ 30'$ loop. In the western iron-field, which is nearly coincident with the 7° oval, our observations were repeated at various points (the aim being to avoid iron deposits) without finding any local action.

In conducting the survey, a magnetometer belonging to Washington University was used, but the dip circle and declinometer were kindly furnished by Prof. J. E. Hilgard of the U.S. Coast and Geodetic Survey. Thus far the survey has been conducted wholly on private means, in which we have been aided by the railroad

companies, and by citizens of St. Louis. A Bill providing for the completion of the survey is now before the Legislature of the State.

FRANCIS E. NIPHER

PRIMITIVE MARRIAGE CUSTOMS¹

THE chief object of Mr. Fison's recently published memoir on Kamilaroi marriage, descent, and relationship, is "to trace the formation of the exogamous intermarrying divisions which have been found among so many savage and barbaric tribes of the present day," and to show that what Mr. Morgan calls the punaluan family, with the "Turanian" system of kinship, logically results from

¹ "Kamilaroi and Kurnai: Group Marriage, and Relationship, and Marriage by Elopement; also the Kurnai Tribe, their Customs in Peace and War." By Lorimer Fison, M.A., and A. W. Howitt, F.G.S. With an Introduction by Lewis H. Morgan, LL.D. (George Robertson: Melbourne, 1880.)

them. His coadjutor, Mr. Howitt, though he has had some interesting information to give about the Kurnai tribes of Gippsland, has had the same chief object; so that the work the two have produced is much more a polemic on behalf of Mr. Morgan than a record of new Australian facts. We must begin, then, by stating what Mr. Morgan's theories are (so far as the work before us is concerned with them), and indicating, and estimating the value of, the evidence on which they rest.

Mr. Morgan, having collected a great mass of facts concerning the terms in use between relations and connections throughout the world, and having found that those terms were, broadly speaking, divided into three orders, proceeded to spell out of the two earlier orders (the third consists of the modern terms of consanguinity and affinity) the whole of the early history of marriage and of the family. In what he has called the Malayan system of relationships, parent and child, grand-parent and grandchild, and brother and sister (or rather elder brother, younger brother, elder sister, younger sister, for there are no words for brother and sister) are the only terms in use; and one or other of these terms is used in addressing a person, according as the person addressed is of the speaker's generation or of the generation above, or of that below it. They are the terms always used when persons address one another, there being among those who use the system an invincible objection to the mention of their personal names. Mr. Morgan assumed that those terms were expressive of consanguinity and affinity; and conjectured that when first used they accurately described the relationships at the time existing, "as near as the parentage of children could be known." And it appeared to him that if there were a body of men and a body of women in the same tribe who all regarded each other as brothers and sisters, and all the men married all the women in a group, there would exist a marriage and family system which would explain the Malayan terms—the relationships arising out of which, so far as they were ascertainable, "as near as the parentage of children could be known," those terms would accurately express.

Accordingly, he framed the hypothesis that the first stage of marriage was the marriage in a group of men and women of the same blood calling themselves brothers and sisters. The family founded upon this kind of marriage he has named the consanguine family, and he regards it as the earliest form of the family. He does not say that such a system of marriage, or such a family system as he has supposed, has been found at any time anywhere; what he says is that this supposition of his explains the origin of the Malayan terms, and that nothing else can explain them. But does it explain them? It is at once obvious that there is one term, and that the most important of all, the use of which Mr. Morgan's hypothesis does not account for. Paternity may be doubtful—and if it were thought of at all in a group such as Mr. Morgan has conceived of, any man of the group might have as good a right as any other to be called father of any child born within it. But there can be no doubt about a man's relationship to his mother. In the case of mother and child the parentage is known with certainty, and therefore, on Mr. Morgan's hypothesis, a man should in the Malayan system have had only one mother. Now that system applies the term for mother to many women besides the actual mother—mother's sisters, father's sisters, uncle's wives, and so on, if not indeed to all women of the mother's generation. Here then the hypothesis breaks down; and the point at which we find it breaking down is really the only point at which it can be tested. The relationship between mother and child, too, which is confused or ignored in the Malayan system, is the one relationship of which it can be said with confidence that no system really founded on relationship could fail to recognise it. The explana-

tion Mr. Morgan offers is that in the Malayan system the relationship of stepmother "is not discriminated," and there being no name for stepmother, stepmothers had to be called mothers, because "otherwise they would fall without the system." And he has what may be called a subsidiary hypothesis to account for there having been no discrimination between stepmother and mother. It is that the affiliation of children to the groups of men and of women to which they belonged would be so strong "that the distinction between relationships by blood and by affinity would not be recognised in every case." The fact of motherhood would be made little of, that is—there would be no discrimination between stepmother and mother—because the whole group would be, by a child, regarded as its mother. But this is equivalent to saying that, from the nature of the case, it was not to be expected that note should be taken of the relationships that could be known; and that is to abandon the hypothesis—as well as to deny us all chance of judging whether it is a good or a bad one. Possibly explanations of the failure of his hypothesis, such as Mr. Morgan suggests, might have some weight were he accounting for the Malayan terms as terms of address; but he takes them to denote actual relationships "as near as the parentage of children could be known." And no explanations can get over the fact that the Malayan terms are equally extensive in their application where, in the consanguine family, parentage would be known with certainty, and where it would not be known at all. The consanguine family is clearly a bad hypothesis. It might be thought it would hardly seem to anybody a plausible one; but Mr. Morgan always speaks of it as if it were among the best vouched of historical facts; and we are bound to say that Mr. Howitt believes in it as implicitly as Mr. Morgan.

To show the hypothesis of the consanguine family to be unstateable is to undermine Mr. Morgan's whole history of marriage and of the family. But Mr. Morgan has propounded a hypothesis as to the second form of marriage and the second form of the family, and as it is at this point that Mr. Fison (who does not quite believe in the consanguine family) lends him his advocacy, it is indispensable that we should give some account of it. Punaluan marriage, upon which was founded the punaluan family, was introduced by some reformatory movement, according to Mr. Morgan, to put a stop to the evils attendant upon brother and sister marriages. It existed in two forms. In one form of it a group of men, brothers or reputed brothers, had in common their wives who were not their sisters and not the sisters of each other; in the other form, a group of women, sisters or reputed sisters, lived in common with husbands who were not their brothers and not the brothers of each other. Punaluan marriage has not been observed at any time anywhere any more than the consanguine family; but Mr. Morgan believes that, in both its forms, it has existed everywhere, and probably during many ages. A correspondent wrote to Mr. Morgan stating that in the Sandwich Islands men whose wives were sisters and women whose husbands were brothers called each other punalua, which meant dear friend or intimate companion. And possibly drawing his bow at a venture, "the relationship," he said, "is rather amphibious. It arose from the fact that two or more brothers with their wives, or two or more sisters with their husbands, were inclined to possess each other in common." Whether conjecture or fact, this amounts to very little; but it was this which gave Mr. Morgan the suggestion of punaluan marriage. For proof of his hypothesis he again relied upon the terms he had collected—and at first upon its fitness to explain those same Malayan terms which, as we have seen, have more than enough to do to bear the weight of the consanguine family. In his latest work ("Ancient Society") he holds it to be proved by a nomenclature considerably

different from the Malayan—his second order of terms which he has named the Turanian system of relationships. He regards the terms in this system also as accurately describing, "as near as the parentage of children could be known," the relationships existing at the time when they came into use. It differs from the Malayan in including words for cousin, uncle and aunt, and nephew and niece—or words which Mr. Morgan has so translated. It will be found, however, that Mr. Morgan does not use the punaluan family in accounting for any one of the Turanian terms. Those of them which coincide, or partly coincide, with the Malayan terms he had already accounted for by the hypothesis of the consanguine family, and he does this over again; the others he accounts for, or tries to account for ("Ancient Society," pp. 442-445), by means of exogamy alone. His reasoning is exactly what it would have been had the punaluan family never occurred to him. Indeed it has been an embarrassment to him; he has had to keep it out of his reasonings. For the punaluan family is, *ex hypothesi*, in two forms, and neither form could, "as near as the parentage of children could be known," yield both the Turanian sense of father and the Turanian sense of mother. Where the husbands were punalua, Mr. Morgan's reasoning would make them all, though not brothers, fathers of children born within the group, and it would exclude their brothers from being considered fathers. But, in the Turanian system, a father's brothers are called fathers. Similarly where the wives were punalua, Mr. Morgan's reasoning would make them, though not sisters, all mothers of the children of each of them, and would exclude their sisters from being considered as mothers. But, in the Turanian system, a mother's sisters are called mothers. Mr. Morgan has not failed to see this, and he has actually again framed a subsidiary hypothesis to give his hypothesis of the punaluan family a chance of living. This is (see "Ancient Society," p. 445) that where a group of sisters married men who were not brothers, they also became the wives of all the brothers "own and collateral"—that is, all the brothers and one-half of the cousins, however far removed—of each of their husbands; and, similarly, that when a group of brothers married women who were not their sisters, they also became the husbands of all the sisters and one-half of the cousins of each of their wives. All that need be said of this subsidiary hypothesis is that it gives quite a new look to the punaluan family—and that the effect of it, like that of the secondary hypothesis formerly noticed, is to deny us all chance of judging whether the principal hypothesis is a good or a bad one. The justification offered for it is that "the system (the Turanian) treats all brothers as the husbands of each other's wives, and all sisters as the wives of each other's husbands, and as intermarried in a group"—but that is equivalent to saying that the system has taken no impression of the punaluan family, and gives no countenance to Mr. Morgan's hypothesis. As, apart from "the system," he finds nothing to say for it, it is difficult to see how any one can resist the conclusion that that hypothesis must be dismissed, and that it must be ranked among the wildest chimeras that have ever possessed the brain of a man of science.

Now, do Mr. Fison and Mr. Howitt give in any degree to Mr. Morgan's hypotheses the support of which they are in need? The answer must be no—and must be no even if we receive as facts the assumptions as to fact from which they set out. Mr. Howitt accepts both the consanguine family and the punaluan family, while Mr. Fison offers himself as the advocate of the latter only. But Mr. Howitt has nothing new to say for the consanguine family; he believes in it, and argues from it as if it were known historical fact—that is all; and so of it no more need be said. What then do his colleague and he find to say for the punaluan family? Literally, not a word. Mr. Howitt simply takes it for granted as he does

the consanguine family. Mr. Fison, in beginning, undertakes to show that it results logically from his hypothesis—for it is no more than that—of "exogamous intermarrying divisions," but he does not attempt to do so. And, in fact, his "intermarrying divisions" are quite different from the punaluan family, and leave no need for it, and no room for it; that is, his hypothesis is different from and exclusive of Mr. Morgan's. In Mr. Fison's hypothesis, a group of men who are considered brothers and a group of women who are considered sisters—being the men and women of the same generation in two divisions which intermarry with each other, and only with each other—are by birth husbands and wives to each other; whereas, in the punaluan family, when the husbands are brothers the wives are not sisters—they are punalua; and when the wives are sisters the husbands are not brothers—they are punalua. Men who are brothers are restricted to women who are each other's sisters, on Mr. Fison's hypothesis; but, on Mr. Morgan's, men who are brothers marry women who, as a rule, are not each other's sisters. The marriage law shown in Mr. Fison's hypothesis would have to be given up before the punaluan family could have a chance of issuing out of the intermarrying divisions. Then, as Mr. Fison justly observes, his intermarrying divisions "would have precisely the reformatory effect" which Mr. Morgan attributes to the punaluan family—so that, given the divisions, the punaluan family would not be needed for reformatory purposes; and as Mr. Fison's view is that the totem clan grew up within his divisions, while their marriage law still subsisted, the punaluan family would not be needed to give birth to the clan (which Mr. Morgan says it has done). And, clearly, there would be no more room than need for it. It thus appears that, instead of supporting the hypothesis of the punaluan family, Mr. Fison has put it aside, and offers an improved hypothesis (suggested, no doubt, by Mr. Morgan's) in place of it. We have seen that he does not accept the consanguine family either. He does not, indeed, repudiate it. But to connect it with his intermarrying divisions seems to him so difficult that he thinks the one could have been changed into the other only through the intervention of "a higher power." He is not afraid of the ridicule to which he might be exposed were he to account for the first formation of the divisions by such a hypothesis; but he thinks it unnecessary to go behind them. We have now shown in what manner Mr. Fison supports Mr. Morgan—and we have shown that Mr. Morgan is in no position to give any support or countenance to him.

To show that the Turanian terms would result logically from his own hypothesis is what Mr. Fison has attempted. There are in a tribe two divisions which do not permit marriage within the division, and are restricted to intermarrying with one another. All the men in one division are the husbands of all the women of the same generation in the other; the wife does not come into the husband's division; and descent is reckoned through the mother. The group of men marries the group of women; and it is the group that is husband, the group that is wife, the group that is father, mother, son, or nephew; every person in it taking, however, all the relationships that arise to it. Such is the hypothesis. Seeing that the relationships are called group relationships, it might be thought that Mr. Fison considered the Turanian terms to have been, in the first instance, something other than terms of blood-relationship, say terms of address; but he denies that they are terms of address, and regards them as having been real relationships from the first. In what natural sense of relationship, however, a group—or the women in it other than the actual mother—can be mother of a child he does not tell us; and till he can make this plain, his theory must be held to be as untenable as the hypothesis of the consanguine family. As for his demonstrations (Q.E.D. at the end of each) of the Turanian

terms, we can scarcely pretend to follow them. The terms which are specially Turanian are laid down by him in definitions, and these definitions are used in the demonstrations—so that, so far as these terms are concerned, he seems to assume what he is going to prove. On p. 87 (Prop. 12) he proves that certain groups are cousins by the mere statement of three definitions. What is also odd is that, immediately after, he proves, by a process of reasoning, that the same groups are not cousins, but brothers and sisters-in-law. Similarly, he proves first that a group is another group's nephew, and then that it is its son-in-law. This brings us to say that the terms which Mr. Morgan has translated uncle, aunt, nephew, niece, and cousin, and which he regards as denoting relationships, according to Mr. Fison really mean father and mother-in-law, and brother and sister-in-law only, and express nothing except that a person is called father or mother, brother or sister, as the case may be, by a man or woman whom one is free to marry. How these could, with group marriage, be more than terms of address it puzzles us to see. What it is necessary to notice in these demonstrations, however—and nothing else is really necessary—is that while by hypothesis descent is reckoned through the mother—which must show that relationship had to some extent been the subject of thought—and “so far as descent is concerned, the father is a mere nonentity,” they all proceed on the view that the father, who on the hypothesis would be in each particular case unknown, is as much a relative as the mother. Having said this, no more need be said of Mr. Fison's demonstrations. It should be added, however, that the terms in use among relatives in Australia are, so far as Mr. Fison can learn, in the main Malayan—and he has no theory to account for the Malayan terms. He knows nothing at all of the terms in use among the Kamilaroi. He has himself found the native terms “exasperatingly puzzling.” Several terms may be used by the same people for one relationship, and, as he says, matters other than relationship appear to be taken into account. The ceremony of initiation, for example, affects the words by which a man will designate another, though, as Mr. Fison says, it “does not touch their relationship.”

As to the hypothesis itself, an essential part of it (and indeed of Mr. Morgan's hypotheses too) is that, as regards the intercourse of the sexes, there should have been no mixing of generations—that only men and women of the same generation should have been husbands and wives. A generation, apart from particular families, can be defined only loosely, but for Mr. Fison's purposes it should be definable with some precision. At any rate, his theory requires that the elderly men should have been kept separate from the young women, and the young men from the old women. But what an assumption this is—especially to make primarily of Australian natives, of whom nothing is better known than that the elderly men monopolise the women, and especially the young ones, and that a young man (though much license is allowed) hardly ever gets a wife, unless it be an old one, except by running away with her. This assumption, experience being dead against it, is of itself enough to put out of the field the hypothesis of which it forms a part. The idea of intermarrying divisions with groups of husbands all brothers, and groups of wives all sisters, no doubt sprang out of the hypotheses of Mr. Morgan, but apart from Mr. Morgan, it has a history which must be told. Briefly, it was suggested by a traveller's mistake.

In 1853 the Rev. William Ridley, a Presbyterian clergyman of Sydney, published a statement as to the marriage rules of the Kamilaroi, which statement is now known, on Mr. Ridley's own authority, to have been essentially erroneous. Mr. Fison still treats it as entirely true, and treats all later and more correct information as if it gave facts of a later order. Mr. Ridley said that the Kamilaroi were divided into four castes of men and

four of women, and that (with one exception) the men of a caste could marry only women of one other caste. Murri, feminine mata; kubbi, feminine kubbitha; kumbo, feminine butha; and ipai, feminine ipata, were the castes; and he said that a murri could marry a butha and no other woman, and that his children were not murri and butha, but ipai and ipata; and that, similarly, a kubbi could marry only an ipata, his children being kumbo and butha; and a kumbo only a mata, his children being kubbi and kubbitha; while an ipai, besides being free to marry any kubbitha, could marry any ipata not of his own family—his children, when he married a kubbitha, being murri and mata, and when he married an ipata, kumbo and butha. Mr. Ridley repeated this statement without change in 1855, and he told it in 1871 to Mr. Fison with this amount of change, that instead of castes he now spoke of classes (in unhappy imitation of Mr. Morgan), and of four classes, with men and women in each, instead of four classes of men and four of women; and that he described the marriage of ipai with ipata (that is with a woman of his own class) as an infringement of rule—changes that may fairly be ascribed to the initiative of Mr. Fison. Mr. Fison, putting aside the marriage of ipai with a woman of his own class as an irregularity, and idealising Mr. Ridley's statement, at once formed the hypothesis that all the men of one class originally were by birth the husbands of all the women of the same generation in the class with which they might intermarry. This, although he knew from Mr. Ridley that polygamy was largely practised among the Kamilaroi. Much licence was allowed; and the only word for spouse signified a person whom one is free to marry; and these two facts seemed to him to override Kamilaroi practice, and to prove that marriage had been communal, to begin. In the same year (1871), however, Mr. Ridley was again among the Kamilaroi, and sent to Mr. Fison a statement which should have shaken his faith in his hypothesis—both because of the new matter it contained, and because there were in it what he himself perceived to be errors of observation. Mr. Ridley has published several statements since, all containing obvious errors of observation or slips of memory, and it is impossible to receive even his latest statement as final. But observe what his latest statement is, and compare it with Mr. Fison's hypothesis. It is that the Kamilaroi are divided into totem clans (iguana, paddy-melons, opossums, emus, blacksnakes, bandicoots); that every native has three names—a personal name (carefully concealed), a “class” name, and a totem name; that children take both the class name and the totem name through the mother; that the men and women of every class are free to marry one another, provided they are not of the same totem—and that, besides, murri may marry any butha, kubbi any ipata, kumbo any mata, and ipai any kubbitha. If his statements can be trusted, murri and butha, kubbi and ipata, kumbo and mata, and ipai and kubbitha, who are free to marry one another, are never of the same totem—so that all the marriages which certainly are permitted are marriages between persons of different totems. Mr. Ridley still leaves each class restricted from intermarrying with two others. So much of his original statement he has not yet found to be wrong. But the class name does not prevent marriage within the class. The notion that the Kamilaroi were in intermarrying or husband and wife “castes” was certainly erroneous. Is it likely then that the class-name is any bar to marriage outside the class? Is it not far more likely that there is still something for Mr. Ridley or some other inquirer to find out, and that, in the main, identity of totem is the only bar to marriage? We say in the main, because it is very likely that there are also regulations to prevent marriage between persons near in blood who are of different totems. Mr. Lance, who is a great authority with Mr. Fison, and who was Mr. Ridley's first informant, had got into his

head that the Kamilaroi were divided by their names into castes with the marriage law which Mr. Ridley first described, and, meeting with an ipai whose wife was an ipata, he regarded him as a daring transgressor of the customary rule. The man told him that he and his wife were free to marry because they were not of the same mudji (totem); and, thereupon, Mr. Lance (who evidently had never before heard of totems) told Mr. Ridley that the ipai were privileged above their neighbours in being free to marry women of their own class who were not of the same family with them; and Mr. Ridley told the world that they were the aristocratic caste among the Kamilaroi. (He has since stated that the murri are the aristocratic class.) This is the sort of observation we are questioning. Had Mr. Lance seen in operation a rule intended to prevent, say a man from marrying his own daughter, he might easily have magnified it into a rule prohibiting two whole "castes" from marrying. And in all probability it was something like this he did. It is the ludicrously wrong impression he had before he met the ipai aforesaid that Mr. Fison has taken for the basis of his hypothesis—but from even that to the hypothesis is a tremendous jump. And, after all, even if we overlook the inadmissible assumption which forms an essential part of the hypothesis, it appears not to be good for anything.

What have been called caste or class names appear, so far as the evidence goes at present, to be names merely, and to have no effect on the right of intermarriage. The system of naming is certainly very peculiar. The names alternate in successive generations. That is not in itself peculiar; but the same name is taken by all the sons, the same name by all the daughters. Thus ipata's children are the sons all kumbo, and the daughters all butha; and, again, butha's children are ipai and ipata. It is a pretty widely spread system. Mr. Howitt says that, as far as he knows, it prevails among all Australian tribes; but this is going a vast deal too far; and is calculated to undermine faith in Mr. Howitt's judgment, for it plainly does not prevail among the Kurnai whom he himself has described. His report shows nothing like castes or classes among them; the men, he says, are all called yeerung (emu-wren) by the women, and the women all djeetgun (superb-warbler) by the men, but this (whatever it may mean, and it may mean very little) does not divide the Kurnai into anything other than men and women. Mr. Fison has had from a number of correspondents statements which he takes to mean that among tribes other than the Kamilaroi which have this system of naming, there is no marriage between persons of the same name; but his correspondents are neither, as regards opportunity or observing power, above Mr. Lance; and Mr. Ridley's study of the Kamilaroi, imperfect as it has been, gives the only evidence that can be regarded as trustworthy. Mr. Fison has amended the list of marriages allowed among the Kamilaroi, given by Mr. Ridley, as he says, on later information; but anonymous information cannot be thought of much value on this matter as against the authority of Mr. Ridley. Mr. Fison is too easily satisfied with anything that seems to make for his view to be indly trusted in such a matter. We find him inferring from there being no marriage between blood-relations—which may mean totem clans—among people who have the class names that there is no marriage within the class. We find totem clans, too, reported to him as classes and ranked by him as classes; and "divisions," which probably mean totem clans, are also ranked by him as classes. On the other hand he candidly gives at least one case in which the class-names are said not to restrict marriage. He gives at the very beginning of his book a native legend of brothers and sisters having married at the first—a legend which both Mr. Morgan and he make much of. We are surprised, however, at his missing the true point of it. What it exhibits is not a movement to "intermarrying divisions"

or classes, but to the establishment of totem clans. *These* are all the natives seem to have thought in need of explanation.

We should have been glad to notice Mr. Howitt's account of the Kurnai at some length, but we must be brief. The Kurnai have kinship through males and exogamy—that is, prohibition of marriage within the kindred; and as was to be expected in such a case, the kindreds form local tribes. He does not expressly tell us whether or not these clans or local tribes are distinguished by totems (which shows that he meant to be careful, and that his information was very far from being complete), but incidentally he lets out that they are. When a Kurnai young woman meets a young fellow who, being a stranger, looks as if he might make a husband for her, Do you eat kangaroo, opossum, blacksnake? is her first question after saluting him. Presumably the animal she names is her own totem. If the stranger may eat it he can marry her. As for his discovery of marriage by elopement, we have no doubt that it is (as a missionary friend of his, Mr. Bulmer, hinted to him it must be) a mere product of misconception. Young men among the Kurnai, he says, could get wives only by eloping with them on the proposal of the women. This may be; an Australian young man could scarcely ever get a wife except by running away with her. But how did the elderly men get their wives? He appears never to have asked that. But he is aware that there was a system of exchanges. The Kurnai are polygamous, and no doubt among them, as among other Australians, the elderly men had, by means of exchanges, nearly all the young women for wives. Mr. Howitt writes so candidly, and his account of the Kurnai is in many respects so interesting, that we should gladly have brought ourselves to think better of this discovery of his. But after reading Mr. Fison's most amazing account of the origin of marriage by elopement, we find ourselves shut up to holding that it is simply a big blunder. Nothing else could have elicited so preposterous an explanation. But such words as preposterous fall harshly on the ear, and we would part from our authors without unkindness. Their exertions to advance a growing science are truly commendable. If the result has been rather to mystify than to elucidate, there is but one more illustration of the way in which good intentions, industry, and ingenuity are wasted when men have started in the wrong track.

D. MACLENNAN

NOTES

THE evening discourses at the meeting of the British Association at York will be delivered by Prof. Huxley and Mr. Spottiswoode. Mr. Huxley will speak of the "Rise and Progress of Palæontology" on Friday, September 2, and Mr. Spottiswoode "On the Electric Discharge, its Forms and its Functions," on Monday, September 5.

THE Honorary Fellowship of the Royal College of Surgeons in Ireland was on Wednesday last week conferred on Prof. Helmholtz, and the Honorary Degree of LL.D. by the University of Dublin. On Monday night, at an ordinary meeting of the Royal Society of Edinburgh, Sir William Thomson in the chair, Prof. Helmholtz read a paper on "Electrolytic Conduction." There was a crowded attendance, and Prof. Helmholtz was warmly received.

ON Monday the National Fisheries Exhibition, which has been organised at Norwich under the care of numerous public bodies, from the Board of Trade downwards, was opened by the Prince and Princess of Wales. The exhibition is divided into six classes, as follows:—1. Pisciculture and shell fish culture; 2. Models, trawling gear, drifting gear, canvas and ropes, and inland fishing tackle; 3. Life-saving apparatus, lamps, fog-horns, signalling, &c., architectural plans for fish markets, fish-curing