JOURNAL
OF THE
BRITISH SOCIETY OF DOWSERS

Vol. XIV No. 98 DECEMBER, 1957

CONTENTS

Published quarterly by the Society at York House, Portugal St., W.C.2
Price to Non-Members, 6/-

BRITISH SOCIETY OF DOWSERS

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York House, Portugal Street, London, W.C.2. Tel.: Holborn 0805

JOURNAL OF THE
BRITISH SOCIETY OF DOWSERS

Vol. XIV No. 98 December, 1957

NOTICES

A Notice in red ink, enclosed in this journal, is being sent to all members who have not yet paid their subscription for the current year or have paid only part of it. It is hoped that these members will, if they wish to retain their membership, pay it without further delay.

* * * * *

The Editor would be grateful if members, especially those living abroad, would send extracts to him concerning radiesthesia and dowsing which appear in local papers, giving the name of the paper and the date of issue.

* * * * *

The Title Page and Contents of Volume XIII of the Journal are now ready and can be obtained gratis from the Editor on application.

* * * * *

Members taking books from the Library are requested to return them within a month or to ask for an extension.

In making payment for postage of books, or for other purposes, in stamps, it is requested that values higher than 4d. should not be sent.

* * * * *

Six free copies of the *Journal* will be given, on request, to writers of articles in it, in addition to the usual copy.

* * * * *

The price of the *Journal* to non-members is now 6s. post free. The price to members of new journals in excess of the free numbers is 4s., and of back numbers 2s.

* * * * *

The Society's badges can be obtained from the Assistant Secretary for 1s. 3d. post free.

* * * * *

Contributions for the *Journal*, preferably in typescript, should be sent to the Editor at least five weeks before the first day of March, June, September and December, if they are to appear in the respective *Journals* for those months.

* * * * *

Communications for the Editor, and inquiries, should be sent to Colonel A. H. Bell, York House, Portugal Street, London, W.C.2.

We much regret to record the death on October 28th last, at the age of ninety-six, of Jessie Tolcr Kingsley Tarpey.

She, whom many of us knew with affection and regard as Mrs. Kingsley Tarpey, was a talented lady of great charm. A natural healer, she embodied her experiences in the booklet, *Healing by Radiesthesia*. Her paintings in water colour were of a high order, and were used by her for curative purposes in connection with certain complaints.

Mrs. Tarpey had been a member of our Society since the early days of the war and contributed to the journal on several occasions; her last lecture to us was given at an advanced age, but betrayed no failing in her powers of exposition and delivery.

Her funeral was attended by the President and Dr. Benham, and a wreath was sent on the Society's behalf.

MEMBERS

* Life Member **H** Honorary Member

NEW

ANDREAE, Mrs. C. V., Tandridge Court, Oxted, Surrey
BRADSHAW, R. A., 46 St. Aidans Street, Tunstall, Stoke-on-Trent, Staffs.
BRITNEY, Mrs. Jane, 3 Silverthorne, King's Ride, London Road, Camberley, Surrey
BROWN, Miss O. S., 193 Baldock Road, Letchworth, Herts
GODFREY, Dr. E. L., 248 Jeppe Street, Johannesburg, S. Africa
GREGORY, Mrs. B. H., Gunwalloe, Caradoc Drive, Church Stretton, Shropshire
HILL, the Hon. Richard M. O., Hambleton Manor, nr. Droitwich, Worcestershire
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HMAXWELL, Captain T. K., R.N. (Retd.), c/o Barclay's Bank Ltd., 19 Moorgate, E.C.2
MOWATT, A., Callé Rawson 3271, La Lucila Olivos, FCNGBM, Argentina
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SHIELDS, D. L., M.A., Ed.B., Homewood, 11a Common Close, Horsell, Woking, Surrey
SILLEY, H. A. J., 130 Leadenhall Street, E.C.3
WOOKEY, E. E., 19 Wimpole Street, W.1

The following were omitted from the list in the September journal by mistake:

*BAGOT, A. G., Roselyn Farne, Piawaning, Western Australia
ENGLAND, F., 7 South Street, Newton, Auckland, New Zealand
SCANLON, J. E. B.A., Ph.D., F.G.S., Pakistan Shell Oil Co. Ltd., Qamar House, Bunder Road, Karachi
DE SCHWEITZER, N. J., Main Bay Road, Pukarua Bay, Wellington, New Zealand

The following were wrongly shown as life members in the list of members in the September journal :

M. J. H. Cole, A. F. Coutts, also Commander A. G. D. Bagot, R.N. (Retd.), whose name should so appear

The following should have been shown as life members, but the asterisk was accidentally omitted in the list :

Lt.-Colonel E. L. Botting, J. J. Dochowski, Miss S. N. Frost, G. H. Goodman, Miss M. E. Harper, Dr. C. C. Hayes, R. C. Hilton, Mrs. D. E. Morgan, L. E. McCutchan, J. Scott Pitcher, B. Ustaborowicz, Miss H. A. Walker.

CHANGES AND CORRECTIONS

BAKER, Mrs. E., 81 Undercliffe Road, Eccleshill, Bradford 2
BARROW, General Sir George de S., G.C.B., K.C.M.G., Concord, Long Bennington, nr. Newark, Notts.
BLACK, Mrs. J. A., c/o Lloyds Bank Ltd., Cox's and King's Branch, 6 Pall Mall, S.W.1
*BOTTING, Lt.-Colonel E. L., R.E., 1 Fairholme Avenue, Neston, Cheshire
BRADFORD, the Earl of, D.L., J.P. (formerly Viscount Newport), Weston Park, Shifnal, Shropshire
BROWNE, Miss I., 248 Winsley Road, Bradford-on-Avon, Wilts.
CAMERON, Miss M., 20 Wellington Road, St. John's Wood, N.W.8
DE CHRAPOWICKI, Countess Maryla, D.Psy., N.D., M.R.I., M.N.I.M.H., Flat 3, Grove End Gardens, Abbey Road, N.W.8
COMBES, R., Greenhill, P.O. Umzimkulu, East Griqualand, Cape Province, S. Africa
CORNWALL, E. M., 21 Fairmead Close, Bromley, Kent
EEMAN, L. E., 20 Wellington Road, St. John's Wood, N.W.8
GASKELL BROWN, D., F.R.G.S., S.P.R., Elstow, Yealm Road, Newton Ferrers, S. Devon
GIBBS, W. H., Mellon Dormitory, W. and J. College, Washington, Penna., U.S.A.
*GOODMAN, G. H., 5 St. Peter's Crescent, Church Vale Road, Bexhill-on-Sea, Sussex
IZOD, W., Kilkenny Close, Main Street, Welford-on-Avon, Stratford-on-Avon, Warwickshire
JAQUIN, N., Landfall, Fielden Lane, Crowborough, Sussex
KAYE, E., The Croft, Hartley Wintney, Hants.
*KOFIE, J. E., P.O. Box 674, Kumasi, Ghana
LAMB, W. H., Rose Cottage, West Drive, Pittville, Cheltenham
LUTTMER, J. F. W., 1129 South Olga Street, Mundelein, Illinois, U.S.A.
MAXWELL-MOORE, Miss S. E., The Cottage, Barton, Winscombe, Somerset
MILLEN, Mrs. Norah, c/o Midland Bank Ltd., 26 Biggin Street, Dover, Kent
NEWPORT, W. C., M.B., Ch.B., L.M.S.S.A., 193 Parrswood Road South, East Didsbury, Manchester 20
POOK, H. W., 37 Eaton Place, S.W.1
RICHARDS, Mrs. D. L., Lower Huntham, Stoke St. Gregory, Taunton
SCOTT PITCHER, J., Woodpeckers, Great Bardfield, Essex
SEARS, Mrs. H. P., Blue Cedars, Lavant Road, Chichester, Sussex
SHIPPARD, Mrs. E. M., The Cottage, Barton, Winscombe, Somerset
STEER, P. C., 21 Cliffdale Gardens, London Road, Cosham, Hants.
TIGHE, Rev. W., delete address in Australia
WRIGHT, W. E., Flat 2, 8 Arundel Avenue, Marine Parade, Brighton 1, Sussex
WODEHOUSE, Mrs., 99 Eaton Place, S.W.1

RESIGNED	OBITUARY
BINNS, Mrs. M.	TARPEY, Mrs. Kingsley
WHITE, E. S.	
JELFS, H.	
HARDING, Miss E. M.	

ANNUAL GENERAL MEETING

The twenty-third Annual General Meeting was held at the rooms of the Medical Society of London at 3 p.m. on Wednesday, October 23rd. It was attended by sixteen members, and Colonel Bell was in the chair.

1. The Chairman stated that a report of the meeting last year had been published in the journal for December last, and requested that the minutes be taken as read. This was agreed to by a show of hands, and the minutes were signed by the Chairman.

2. The Chairman then read the following report :

LADIES AND GENTLEMEN,

This is the twenty-third Annual General Meeting since the Society was founded on May 4th, 1933.

According to the list published in our journal last September, the total membership of the Society at the end of July numbered 653, which is about the same as last year's number. No less than ninety of our members are residents of the United States, two-thirds of them in the West. It is satisfactory to find that the raising of the rates of subscription has not reduced our membership.

We have to regret the deaths of several old members during the past year ; notably, of Lt.-Colonel H. M. Edwards, D.S.O., who joined the Society soon after its inception, and acted as Honorary Secretary and Treasurer for eight years ; also of Miss E. A. Wharton, who was a qualified medical practitioner, and used radiesthetic methods in her treatment of human beings and animals ; also, of the Venerable Archdeacon I. H. Pratt, of Rossorry Rectory, Enniskillen, who had practised as a water diviner since 1906 and had located many wells in his country.

The Society has, too, suffered a loss in the death on July 21st, of Mr. Kenneth Roberts, the distinguished American novelist, as he had done more to spread a knowledge of the value of dowsing for water than any other writer in the English language since the publication of *The Divining Rod* in 1926. His book, *The Kenneth Roberts Reader*, contains a long chapter on water divining, and two books—*Henry Gross and his Dowsing Rod* and *The Seventh Sense*—describe the exploits of the remarkable dowser whom he befriended and the progress of the Company he formed in which Henry Gross was the central figure.

The journal has been produced on the same lines as hitherto, at an average length of sixty-four pages. We owe our thanks to

all those members at home and abroad who have contributed to the journal in the past year, in the form of articles, reviews and letters ; especially to Mr. Gaston Burridge, whose interesting contributions on various applications of dowsing have been a regular feature of the journal for several years ; and to Mr. Wethered, whose full reviews of *La Radiesthésie pour Tous* give such a revealing picture of the trend of Radiesthesia on the Continent, however much some of us may be inclined to dispute the scientific value of certain of the articles.

I must repeat my annual appeal that any member of the Society—or non-member, for that matter, who sees our journal —should send to the Editor any contribution which he or she thinks might be of interest to our members. In this connection, I would like to draw your attention to the Editorial notice on page 1 of the September journal. For many years the section of the journal headed " Notes and News " has been based on cuttings from various newspapers, obtained through a Press-Cutting Agency. The cost of subscribing to such an agency is now so high that it does not seem worthwhile to continue this practice. The Editor has, therefore, appealed to members at home and abroad to send him any snippet of news concerning Dowsing or Radiesthesia which might be of interest to other members, giving the name of the publication and its date.

We now have about 280 members living overseas, and the journal is the only thing they receive in return for their subscriptions. It therefore behoves us to make the journal something which they can appreciate.

During the past year, eighty-eight issues of books have been made from our Library, and in addition several issues were made of periodicals such as *La Radiesthésie pour Tous* and *The Pendulum*.

Nine lectures were delivered to the Society last year between October and June, including the unusually interesting lecture, with its excellent coloured slides, delivered by Colonel Rivers-Moore, on his excavations at St. Mary's Priory, Hurley, after the Annual Meeting last year.

The other lectures were those by Dr. Barlas, on " A Homoeopathic Approach to Radiesthesia " ; by Major B. Wilmot-Allistone, on " Cosmic Consciousness and Telesthesia " ; by Mr. P. S. Seward, on " The Dowser and the Amulet " ; by Mr. W. G. Lines, on " Experiences of a Practical Water Diviner " ; by Dr. A. M. Janser, on " Unknown Factors in Spa Treatment " ; by Countess de Chrapowicki, at the Annual Reception, on " The Chirotest Method of Diagnosis " ; by Mr. Noel Spong, on " Spiritual Healing in Theory and Practice " ; and by Miss Beryl Hutchinson, on " The Hand in Dowsing."

All of these lectures, except one, were printed in the journal. Our thanks are due to all those who have been kind enough to sacrifice their leisure and convenience for our entertainment and enlightenment; especially to Mr. Lines, whose account of his practical experience as a water diviner over many years must have been of particular interest to members who devote themselves mainly to that branch of dowsing.

The Society will always be glad to hear of anyone prepared to give us an address on any subject connected with dowsing or radiesthesia.

The Reception was held, as usual, at 11 Chandos Street, on April 10th of this year. It was attended by seventy to eighty members and their friends, who seemed to enjoy this opportunity for meeting and discussion. During the afternoon the Countess de Chrapowicki gave an address on her recent invention—the Chirotest—a diagnostic instrument which is independent of any human intervention, radiesthetic or otherwise—but none the less of interest to many of our members. Her address was printed in the journal.

A few days after the end of our year, June 30th, a Week-End Congress was held at Moor Park College for Adult Education, on the same lines as that held last year. As an account was published in our September journal, there is no need for me to make further reference to it.

Judging from the number of calls I receive in my office for the services of dowsers for one purpose or another, dowsing is being regarded with more respect than it was, say, thirty years ago. For instance, in one week recently I was asked for the name of a dowser who could trace a lost relative, and for a dowser to advise on the flow of water on a property near Dorking. If only the performance of dowsers were consistently successful, I feel sure that there would be no lack of employment for them, even though no complete explanation of the main phenomenon has yet been provided on recognised scientific lines.

Colonel Merrylees is much occupied with a project in North Africa, and is otherwise frequently employed on dowsing jobs.

Major C. A. Pogson has been much in the news, in connection with his search for the £7,000 which, according to the entry for October 30th, 1662, in *Pepys' Diary*, is supposed to have been "hid in the Tower" by the Lieutenant of the Tower, John Barkestead, at the Restoration. Major Pogson told me that at the spot excavated, at a depth of about 20 feet, a wall about 20½ feet thick was discovered, and, at the site which had given reactions solid masonry was revealed, which, I understand, was too hard for drill or chisel to penetrate.

Most of our members will have read of the discovery by Major Pogson of the remains of an old Saxon sword and two little glass funerary vases, in perfect condition, in a grave in a Saxon cemetery near Sandwich. This interesting find was reported in several of the daily papers, and a note about it was printed on page 40 of the September journal.

No doubt many locations for water in this country must have been made by many of our members during the year under review, but the Editor has been given no information about them. This remark applies generally to members abroad, but I am glad to say that Mr. Williamson, in Tanganyika, who has elaborated a precise method for estimating depth and quantity—from a consideration of the position of the reaction bands which are caused by any flow of water—is now sending me forecasts of all the locations he makes, and will later send me the results. Both forecasts and results will be printed in the journal, and their agreement will form a useful guide to the accuracy of his method.

At our Annual Meeting last year I reported that our Research Fund of £1,000 was still practically intact. This sum, as you may know, was bequeathed to us by the late Captain W. H. Trinder, who died on March 4th, 1950.

The reason why no use has hitherto been made of this valuable legacy is mainly the difficulty of finding anyone competent and willing to carry out investigation of the type required.

The fundamental fact about dowsing and radiesthesia requiring much further investigation is the occurrence in the dowser of involuntary muscular movements when he locates his objective or responds to an influence of one kind or another.

The experiments of various scientists, such as Maby, Franklin, Budgett, Tromp and others on the Continent, have shown quite definitely that the dowser or radiesthetist responds in this way when in the immediate vicinity of electro-magnetic influences ; but we now know that he also responds in precisely the same manner when the objective is not in his immediate neighbourhood, and even when it is thousands of miles away : and also that the same sort of response occurs when the influence is of an immaterial kind !

The fundamental problem, therefore, appears to be the process by which these muscular reflexes are aroused. It may well be the case that a close objective of an electro-magnetic kind causes the reflex movements without any intervention of a psychological kind—that is to say, one in which the brain is involved—though this has not been conclusively proved, but to account for the movements when the objective is a distant one, or one of an abstract nature, no such explanation can be advanced.

It is all very well to postulate a type of radiation differing from electro-magnetic, pulsating in various directions and strong enough to impart movement to the bob of a pendulum, but an explanation on these lines is incapable of a genuine objective proof, and cannot be seriously entertained.

Research on this fundamental problem is necessarily complex, involving several branches of science, for instance, physics, neurophysiology, biology and a knowledge of the working of the human brain, and it probably requires a panel of scientists who should —as a necessary condition—be sympathetic to dowsing in general and be conversant with the investigation already carried out.

However, at a meeting of the Council in November last it was decided that Dr. Michael Ash, who had shown much enterprise and initiative in carrying out research connected with dowsing on the occurrence of uranium in the West of England, should be given a grant for research on our behalf. He is himself strongly sensitive and has a group of assistants.

Accordingly, a small Sub-Committee of the Council was appointed to supervise research on the lines I have mentioned, and an initial grant of £100 was made, to be followed by others if reports received were satisfactory.

Unfortunately, the only report received up to date was not considered of sufficient value to justify a further grant, and the Sub-Committee reported to the Council in May that, although Dr. Ash had not provided a report suitable for publication, in their opinion the grant of £100 was justified by the investigation he had already carried out in matters of close interest to the Society.

There the matter stands, at present. The investigation referred to by the Sub-Committee is described in Parts I and II of two booklets called *Health and Radiation*, copies of which are in the library.

Meanwhile, owing to dividends which have accrued, the Research Fund still stands at the original figure of £1,000, as bequeathed by Captain Trinder.

Not long ago the Council sent out an appeal for contributions to our Endowment Fund. I am sure they are grateful for the response, largely owing to which the Fund now stands at £300, whereas a year ago it amounted to only about £90. Although the interest on the fund, however small, helps to finance our running expenses, its annual amount is obviously insufficient to meet our needs.

Looking to the future, I must remind you that the facilities we now enjoy, free of charge, in the shape of an office, fuel and light, telephone and furniture, cannot, in the natural course of events,

be available for very much longer and it is to be hoped that some member of the Society, living in or near London, will be able to offer, when the time comes, similar facilities, either free or for a small remuneration. Anyone who will do this will render the greatest service to the Society and its members.

Before I close, I would ask you to join with the Council in expressing our thanks to Mr. Somers Taylor for his services during the last three years of office as Honorary Secretary and Treasurer. The work involves much more trouble than may be realised. Largely owing to members—chiefly those living abroad —sending wrong amounts for subscriptions, and also because we publish three books, all of which have to be separately accounted for.

Nowadays it is difficult to hear of anyone who will do " something for nothing," and it is indeed refreshing to find an exception to this regrettable state of affairs, especially when he is so competent and reliable as is Mr. Taylor.

3. The Honorary Treasurer then made some remarks about the accounts, copies of which had been included with the notice of the meeting.

Points to be noticed were : on the receipts side, the increase in annual subscriptions was due to the higher rate which came into force on July 1st, 1956.

No amount from entrance fees was shown as they had been credited to the Endowment Fund.

The item for meetings included receipts for the Moor Park Congress.

The receipts from sales of books were smaller than in the previous year.

On the payments side the expense of producing the journal had increased owing to the rise in the cost of printing.

In the previous year £142 had been spent on the reprint of " Dowsing."

The amount shown for meetings was greater than in the previous year because it included the cost of the Moor Park Congress.

As regards the balance sheet : The Endowment Fund had increased to £300, due to the crediting to it of the entrance fees, an unforeseen repayment of taxes and to the response to the Appeal.

Although a grant of £100 has been made to the Research Fund, as explained in the President's report, the fund still stands at its original figure of £1,000.

No objections having been raised, the passing of the accounts was proposed by Dr. Laurence, seconded by Mr. Michael Scott and carried.

THE BRITISH SOCIETY OF DOWSERS

BALANCE SHEET AS AT 30TH JUNE, 1957

1956			£ s. d.	£ s. d.
£	£			
		Surplus Account—		
1,227		Balance as at 30th June, 1956.. ..	1,222 2 6	
		Add Excess of Receipts over Payments for the year	152 12 4	
(5)				
	1,222			1,374 14 10
		Endowment Fund—		
42		Balance as at 30th June, 1956.. ..	90 1 1	
48		*Add* Receipts for year	211 11 0	
	90			301 12 1
		Research Fund—		
1,070		Balance as at 30th June, 1956.. ..	1,086 18 5	
17		*Add* Interest accrued, less tax due thereon	20 17 10	
–		Advance from Surplus Account	12 3 9	
1,087			1,120 0 0	
–		*Less* Grants made during year ..	110 0 0	
	1,087			1,010 0 0
	20	**Publications Account Taxation Provision**		19 11 0
		Creditors—		
		Inland Revenue:		
13		Income Tax on Research Fund Investment Interest	15 8 10	
12		Income Tax on Interest on Surplus Account Investments	19 16 8	
	25			35 5 6
	£2,444			£2,741 3 5

1956			£ s. d.	£ s. d.
£	£			
	484	**Balance at Bank and Cash in Hand** ..		339 19 10
		Cash on Deposit—		
		Post Office Savings Bank:		
169		Balance at 30th June, 1956 ..	173 7 0	
4		*Add* Interest ..	4 6 6	
	173			177 13 6
		Barclays Bank—		
–		Amount paid in ..	500 0 0	
–		*Add* Interest ..	13 10 1	
				513 10 1
		Investments—		
200		3½% Defence Bonds (Conversion Issue)	200 0 0	
500		3½% Defence Bonds	500 0 0	
	700			700 0 0
		Research Fund Investments—		
1,010		3% Defence Bonds ..	10 0 0	
–		4½% Defence Bonds	1,000 0 0	
77		Cash	– – –	
	1,087			1,010 0 0
	£2,444			£2,741 3 5

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 30TH JUNE, 1957

1956		RECEIPTS	£ s. d.	£ s. d.
£	£			
394		Subscriptions—Annual ..	538 11 2	
104		—Life ..	55 4 2	
				593 15 4
35		Entrance Fees		– – –
45		Meetings		91 4 0
60		Sales—Journal		77 15 10
58		—"Dowsing"		30 10 11
92		—"Health and Pendulum" ..		57 4 8
13		—"Radiations"		13 4 3
1		—Badges		1 3 3
9		Donations		7 17 8
2		Miscellaneous		1 3 6
		Interest—Gross		
24		On Defence Bonds ..	28 0 0	
4		On Post Office Savings Deposit	4 6 6	
–		On Bank Deposit Account	13 10 1	
—				
28			45 16 7	
12		*Less* Income Tax due thereon	19 16 8	
—				
16				25 19 11
5		Balance—being Excess of Payments over Receipts for the year		– – –
£834				£899 19 4

1956		PAYMENTS	£ s. d.	£ s. d.
£	£			
292		Printing of Journal		322 6 11
10		Purchases for Library		3 10 6
		Expenses of "Health and Pendulum"—		
35		Payments to Author ..	27 3 9	
22		Publication	2 5 10	
1		Insurance	11 3	
—	58			30 0 10
		Expenses of "Dowsing"—		
142		Publication	1 19 8	
–		Insurance	7 9	
—	142			2 7 5
		Expenses of "Radiations"—		
13		Publication	10 7	
–		Insurance	6 5	
—	13			17 0
79		Meetings	153 0 7	
135		Office Expenses	110 1 1	
27		Printing and Stationery ..	41 15 4	
72		Postage and Cheque Books	67 13 7	
1		Miscellaneous	12 6	
3		Corporation Duty	2 17 6	
2		Income Tax	– – –	
—	319			376 0 7
	–	Advance to Research Fund		12 3 9
	–	Balance—being Excess of Receipts over Payments for the year (1956)		152 12 4
£834				£899 19 4

We have prepared the foregoing Accounts from the Books and Records produced to us, and certify the same to be properly drawn up in accordance therewith.

Salisbury House, London Wall,
London, E.C.2.
15th July, 1957.

JAMES, EDWARDS & CO.,
Chartered Accountants.

4. The Chairman pointed out that Mr. Eeman having retired due to ill health, it was not necessary for a Vice-President to retire under Rule 22. To fill the vacancy left by Mr. Eeman, it was proposed by Mr. Wethered, seconded by Dr. Westlake, that Major Blyth-Praeger should be elected in his place. This was passed by a show of hands.

Mrs. Barraclough, who was due to retire under Rule 22, now offered herself for re-election. Her re-election, proposed by Major Blyth-Praeger, seconded by Mr. Michael Scott, was carried.

To fill the vacancy as a member of the Council left by Major Blyth-Praeger, it was proposed by Mrs. Barnes that Mr. Michael Scott should be elected to the Council. This was seconded by Mr. Wethered and carried.

The Chairman pointed out that Mr. Somers Taylor had completed his term of three years' service as Honorary Secretary and Treasurer but had kindly offered to stand again. His re-election was proposed by Mr. Wethered and passed by acclamation.

5. The election of Messrs. James Edwards and Co. as auditors for a fee of ten guineas was proposed by Mrs. Barnes, seconded by Mr. Wethered and carried.

This concluded the official business of the meeting. Mrs. Barnes expressed her thanks to the officers and Council for the successful meeting at Moor Park, which she and others had found most enjoyable.

Major Pogson then gave a short and interesting account of the excavations carried out at the Tower of London and of excavations in search of metal at Wallingford Castle as a result of the indications he had obtained.

Members and their friends then adjourned for tea, after which a lecture was given by Mr. Lucian Landau, which is printed below.

MIND—THE DIVINER

An address given to the Society after the Annual General Meeting on October 23rd, 1957

BY LUCIAN LANDAU

Introducing the lecturer, the Chairman said : I have much pleasure in introducing Mr. Lucian Landau, who has kindly undertaken to address us this afternoon.

Mr. Landau is a comparatively recent member of our Society, so for the benefit of those who have not met him I will tell you something about him.

Mr. Landau is by training a physicist and engineer, but in recent years his work has been largely concerned with technology of high polymers. About four years ago he began a serious study of psychic matters, a subject in which he had been interested since his early childhood, whilst devoting much time to the study of Radionics. In 1954 he discovered that he possessed the dowsing sensitivity and has spent a great deal of time in searching for a physical explanation of the dowsing reactions.

He is a member of the Council of the College of Psychic Science and has contributed a number of articles to their publication *Light*, two of which have been reproduced in our journal.

From what I have said, you can see that Mr. Landau is particularly well qualified to address us.

It is difficult to regard the pursuit of red herrings of one's own creation as a profitable occupation, yet it forms the basis of orthodox scientific investigation whose ability to produce results has never been questioned. This apparent nonsense becomes reasonably comprehensible when we consider with what variety of fish we are dealing and the nature of the medium in which they swim and multiply.

The conventional method of scientific investigation comprises observation, followed by the formulation of a hypothesis forming a likely explanation of the phenomenon observed, and finally, subjecting this hypothesis to a test which will either confirm it or contradict it. If the latter, we have to discard the hypothesis and search for another one. Every faulty hypothesis can be regarded as a red herring swimming in a sea of imagination, sometimes a vast teeming ocean, sometimes a deserted backwater. These red herrings are useful creatures if wisely followed, and this implies abandoning them as soon as their colour is identified. Often they lead one a short way in the right direction, but their main value lies in providing the anglers with a useful mental exercise ; making them better able to recognise and catch the right kind of fish.

The history of science is littered with discarded red herrings. Nature's abhorrence of a vacuum was one, unrecognised as such since the days of ancient Greece until 1643. For centuries it was thought that light travelled through space with an infinite speed, until in 1675 Römer found that it was not so, and another

red herring was thrown away. Air, Earth, Fire and Water were once looked upon as the four inseparable elements of the material Universe. More recently the atom was considered to be indivisible. One could list many such red herrings, but probably the biggest and the reddest of them all was the Theory of Phlogiston, which I shall briefly relate for the benefit of those who are not familiar with it, and those who have forgotten all about it.

The chemists of the 17th century were very much preoccupied with the study of the phenomenon of combustion, which at that time was still a complete mystery. Becher was the first to suggest in 1669 that combustion was a process of decomposition, during which the burning substance lost one of its constituents, called by him the Inflammable Principle. It was known at that time that certain metals, such as iron, zinc and mercury, were combustible, and it was therefore concluded that these metals consisted of an Inflammable Principle, common to them all, which was lost during combustion, and a Calx which formed the residue. This hypothesis was further developed by Stahl, who in 1723 named the Inflammable Principle "Phlogiston." He observed that it was possible to convert a metallic Calx back into metal by heating it with carbon. This was explained by assuming that carbon was rich in Phlogiston, which was then taken up by the Calx, thus reconverting it into metal. The Theory of Phlogiston was greatly strengthened by Cavendish, who in 1766 discovered that zinc could be dissolved in dilute sulphuric acid with the liberation of a light, inflammable gas, which he thought to be Phlogiston. The residue, on evaporation, produced crystals of zinc sulphate. He then demonstrated that the same crystals could be obtained by dissolving zinc Calx in dilute sulphuric acid, but this time without the evolution of Phlogiston which, of course, had already been removed during the preparation of the zinc Calx from metallic zinc. Everything seemed to fit into its proper place, and a new set of facts had been discovered, confirming the correctness of the Phlogiston Theory. When Priestley, in 1774, first produced oxygen by heating mercuric oxide in a glass bottle containing air, he was convinced that he had obtained "de-phlogisticated" air, and the fact that it supported combustion better than ordinary air fitted in perfectly with the Theory of Phlogiston.

The conversion of a metal into its Calx was accompanied by an increase in weight, and this was a little disconcerting. However, the protagonists of the Theory of Phlogiston pointed out that the pure Phlogiston, discovered by Cavendish, was lighter than air, and so its loss on combustion would naturally result in an increase in weight. It was an explanation, but it was not good enough. It failed to satisfy Lavoisier, who in the autumn of 1774, by his carefully devised and skilfully executed experiments, revealed the true nature of combustion.

The Theory of Phlogiston was the first theory of modern chemistry, and it is generally acknowledged that it was of great help to science. Yet it was wrong, completely wrong. A giant red herring that was followed by science for over a hundred years, before its colour was recognised.

The age of red herrings is not gone, the breed is by no means extinct. In certain fields of human endeavour, notably the more obscure ones, they continue to be plentiful and active. One of them has for a long time held the attention of workers investigating the phenomenon of dowsing, and quite a few of them, so it seems, are still happily following its trail. Let us take a look at it, but we must look at dowsing first.

Dowsing is an ancient art. It can be very broadly defined as acquiring knowledge without the use of our five senses and without the intervention of reason. Often such knowledge would be difficult, and sometimes extremely difficult to gain by other means. One hesitates to use the term " impossible," but I think it is reasonable to say that in certain cases, for example, finding a water supply in the desert, it would be virtually impossible to accomplish the task in any way other than dowsing. We must consider separately what dowsing is, and the manner in which it is performed. The latter, which I shall discuss at the end of this lecture, can be very individual, but the former must obviously be general.

It is frequently assumed that in the dowsing process the human body constitutes a kind of a detector, but this definition calls for a careful examination. The use of a well-known term tends to give an impression of being in itself an explanation, and in this case we must remember that all detectors are fundamentally means of acquiring knowledge, so we are back to our original definition of dowsing. As a rule the purpose of a detector is to provide a visual or an audible indication of a change that our five senses cannot directly apprehend. The action of certain detectors is surprisingly indirect, the casual chain involved being partly of an invisible character. When acting as a detector, the dowser's body would constitute an apparatus of a complex kind, his muscular movements, made apparent by a magnifying device, such as a forked rod or a pendulum, being the last stage of a sequence of reactions not satisfactorily understood.

Two hypotheses are put forward : one suggesting that dowsing is a purely mental phenomenon, the muscular reaction of the dowser being the result of cerebral activity, and the other regarding the muscular movement as a reflex response to external energy stimulation. This latter hypothesis embraces another one, according to which there exists in nature a subtle kind of radiation, emitted by all forms of matter, radiation possessing definite characteristics of the emitter. These characteristics, according

to this hypothesis, enable the dowser to distinguish between water, oil, gold, etc. Many medical radiesthetists maintain that each disease emits its own characteristic wave pattern which they are able to detect and identify.

The hypothesis of such universal radiation is attractive in this modern age, but, although it so neatly explains many of the dowsing phenomena, I fear that it is a sizeable red herring, and that it is high time to throw it overboard.

We have no physical instruments that can detect this alleged radiation, and the claim that the dowser can, nevertheless, detect it and identify it is not convincing, as the human nervous system is notoriously insensitive to most frequencies. Also, the muscular reactions of a dowser at work do not in any way resemble the reflex reaction caused by an external energy impact. Finally, the phenomenon of highly successful map dowsing seems fatal to the radiation hypothesis ; oil, thousands of feet under the surface of the Earth, cannot possibly cause any radiation to emanate from a map of the area, even if this were not hundreds of miles away from the site, as frequently is the case.

The Phlogiston Theory collapsed simply because the explanation it offered for the increase in weight, following the combustion of metals, was not good enough. There can be little doubt that the case against the universal radiation hypothesis is very much stronger. I do not suggest material objects and living matter do not emit radiation. In fact they do, and we ourselves radiate more energy than can be accounted for by our intake of food. All I say is that this has nothing to do with dowsing ; the evidence supporting this view appears to me to be adequate. And I hope that nobody will now tell me about the detection with the pendulum of different " frequencies," as " proved " by the fact that the length of the cord has to be adjusted to obtain certain reactions. I well remember a lecturer demonstrating before a large audience how his pendulum simply would not move under certain conditions. He allowed a substantial length of cord, and waggled its end with a frequency to which the pendulum could not possibly respond. Judging by their facial expressions, many of those present were duly impressed. Needless to say, the lecturer's explanation of the phenomenon was much more difficult to understand, involving, as it did, symbology.

The alternative hypothesis, that dowsing is an entirely mental phenomenon, is much easier to accept. The imperceptible, but deliberate and persistent movements of the hand holding a pendulum, look much more like the result of mental activity than of an uncontrolled nervous reflex reaction. The fact that the pendulum can produce various patterns of gyration and swings, patterns possessing definite significance, but different for many operators, again indicates that the process is of a mental origin,

with an intelligence behind it. Comparative tests, conducted with dowsers and clairvoyants, showed that both were just about equally successful in locating underground water streams. This, I think, is significant, and it suggests to me that both processes, psi and dowsing, have something in common, and psi is known to be a mental faculty. Again, map dowsing bears a certain resemblance to psychometry, and the technique of holding a sample of the material looked for, will not appear strange to a psychical researcher.

Having expressed myself definitely in favour of regarding dowsing as a mental process, I feel that I ought to elaborate this statement, as the term " mental process " does not convey a great deal to many of us.

The procedure of exploring with the aid of a mind things pertaining to mind is not a very satisfactory business. One is hampered, not only by obvious limitations, but also by our reason, which has a tendency contemptuously to reject as " unreasonable " all ideas that do not conform to a certain pattern. We are all too ready to say that something is impossible. The phrase often indicates simply that our reason has refused to accept the subject under consideration, without even grasping the full meaning of the adjective employed. On the contrary, when we say that something is improbable, it usually means that we have considered the possibility, and have arrived at a certain conclusion. It is interesting to note the seldom observed fact that the truth behind a startling discovery is more often the impossible than the improbable.

Having thus prepared your minds for what I am about to say, I just want to subdue your reason by making quite clear that dowsing is an entirely unreasonable process. In fact, it is an activity quite outside the province of reason ; an activity in which reason must not be allowed to interfere.

The terminology that I shall use will leave quite a lot to be desired. I shall freely use the expressions " Conscious Mind " and " Unconscious Mind," although the structure of the mind is obviously far more complex than that. The limits and degrees of individual awareness vary a great deal, and a long discourse could be written on that subject alone. So whenever I refer to the working of the Unconscious Mind, I shall mean that mental activity of which the subject is unaware, or substantially unaware, at the time when it is taking place. I trust I shall be forgiven this over-simplification, intended to help convey my thoughts in a reasonably clear and concise manner.

Let us consider a simple example of a dowser looking for a gold sovereign buried in a certain field. He will have with him his favourite dowsing device, and probably also a " sample," such as another sovereign, a piece of gold, or merely a slip of paper with

the words " gold sovereign " written on it. Most dowsers need such a tangible " directive," although some find it sufficient to hold a clear mental picture of whatever it is they are trying to find. Our dowser, armed with these two aids, the dowsing device and the " sample," should be able to locate the buried sovereign, if he goes about his business in the right way. He will obtain his direction from what he will call the " pull " of his rod, or from the swing of his pendulum, and will continue to walk slowly until he gets the unmistakeable reaction ; the sudden swing of the rod, or the characteristic movement of the pendulum. He will have found the coin. Now, what is the most likely explanation of what has taken place ?

Having agreed that the process is a mental one, we must now add that it is the work of the unconscious mind, for the dowser has no conscious knowledge of the precise location of the coin, neither could he have found it by the process of ratiocination. The part played by the forked rod, or the pendulum, will be most easily understood by those who have studied mediumship, and I shall say a few words on this subject, as it is so closely related to dowsing.

Very briefly, mediumship in its simple form comprises an acquisition of knowledge by the unconscious mind, this knowledge being subsequently channelled into consciousness. Mental mediumship is no more than this. The ability of the unconscious mind to throw information into the focus of consciousness is the most difficult aspect of mediumship. During normal functioning of the mind, there is a steady stream of information flowing from the consciousness into the vast unconscious store. When we try to recall something from our memory, we reverse the flow, and usually there is no difficulty in the operation. Thus we can see that a two-way communication between the conscious and the unconscious minds is a common process, and all that one hears about " one-way valves " and " leaky valves " has no foundation in fact. There is, however, an important point that we must not overlook : in the normal communication between the conscious and the unconscious minds, the initiative is always with the consciousness. In mediumship the difficulty arises because the unconscious mind is asked to take the initiative and to send forth some information. When this filters into consciousness, it is frequently not recognised as such, for the normal conscious mind is not trained to accept as factual, anything coming via the memory path, that it cannot identify as familiar. Reason, that notorious saboteur of mediumship, will immediately label such information as " imagination " or " nonsense."

Our dowser, looking for the buried sovereign, exercises mental mediumship of a simple kind, and performs it in a simple manner. He does not have to convey names, emotions, or complex messages.

He is playing the old " Hunt the Thimble " game, and his unconscious mind simply prompts him by indicating : cold, getting warm, warmer, very warm, hot ! By using a divining rod, or a pendulum, he avoids the difficulty of having to become aware, in a clairvoyant manner, of the information presented by his unconscious mind to his consciousness. He merely allows his unconscious mind to act on his hands, through his nervous system, in such a manner, that he himself is not consciously aware of the movements so produced, and only by using his simple magnifying devices can he clearly see that they occur.

Now, let us consider the same dowser, again trying to find a buried sovereign, but this time working over a map of a suitable scale instead of the actual field itself. Following his usual technique, he should be equally successful in pin-pointing the spot, on the map, and it will make no difference whether he is working near the field, or hundreds of miles away. We can thus see that this seemingly extraordinary ability of his unconscious mind to acquire knowledge about the location of the buried coin is not affected by the physical distance apparently involved. I say " apparently," as I am not certain whether the dowser's unconscious mind has a definite location in space, whether it has a spatial relationship to his physical body, and whether the term " location " has any meaning at all in this context.

During my experiments with dowsing, I came across another phenomenon, which may be familiar to some of you. On one occasion we had a number of identical boxes, an object was placed inside one of them, and they were then arranged in a haphazard manner by one of the experimenters who then left the room. After several successful attempts to locate the object, I started making mistakes. On investigation, we discovered that I was picking out the boxes in which the object had been. I have since heard of many cases of dowsers locating certain places which no longer held the objects for which they were looking. So it does appear that this ability to acquire knowledge is in a way independent of time. In the examples quoted, this independence resulted in mistakes, but I think that a dowser can successfully identify an earlier location of an object, if he deliberately sets out to do so. To a psychical researcher this is not so very surprising, for such knowledge of the past comes under the heading of a retro-cognition ; a well-known and a well-attested phenomenon.

We may well ask what is the nature of this curious faculty of gathering knowledge ; the faculty not apparently bound by time and space ; the faculty that enables us to locate things in space, even by such indirect means as maps ?

I suggest to you, with little fear of contradiction, that we shall never find the complete answer to this question. That even if we accidentally did find it, we would have no means of knowing

that it was correct. We must accept it as a fact, that our unconscious mind has a way of finding things out, of becoming aware of certain facts in what appears to be a very direct way, without the use of our physical organs of perception, and without the limitations that their use would normally impose.

It will not be easy to support this statement in a manner acceptable to everyone. The process is bound to involve some speculation. We are certain to produce at least one red herring, and we can only hope that it will be of the useful variety.

First of all, is there any evidence that human mind can gain knowledge in the way suggested? The value of the answer will depend on what kind of evidence we are prepared to accept as valid, if not conclusive. We have not found, and it seems that we are not likely to find anything within the human brain that will throw new light on this problem. Therefore the only evidence that we can hope to produce is the data of the capabilities and the limitations of the human mind, whose activities, we can be reasonably certain of it, extend beyond the functions of the brain.

Happily, we are concerned with purely material knowledge, and by this I mean knowledge of facts that can be verified, and that are not likely to be disputed. It is true that this is not always the case with medical radiesthesia and radionic analyses, but these forms of dowsing must be discussed separately.

Let us consider first the so-called normal means of gaining knowledge. The most important of these depends on the correct interpretation of sensory impressions, of which visual impressions are, no doubt, of the greatest value. Thus I know of the existence of a stream when I see it, and I can confirm this impression by listening to the sound of flowing water. I can further ascertain by touch that it is indeed a liquid that forms the appearance and the sound of the stream, and by taste and smell that the liquid is water. In this case I am fortunate in being able to employ all my sense organs in the process of arriving at a definite conclusion. Often this cannot be done, and we have to rely on but some of our senses. It is then that we find how unreliable they can be :—

I hear the sound that my mind associates with a motor cycle. I look out of the window and see my neighbour busily cutting his lawn with a motor mower. I am given a beautiful flower, which, upon touching it, is revealed as an artificial one. You can buy floral perfumes which have never seen a growing plant, and every grocer will supply most realistic flavouring essences, specially prepared to deceive our sense of taste. These examples illustrate the mind's inability at times to interpret correctly incomplete sense data.

Similar errors can result from inaccurate perception. Thus the eye may fail to resolve the shape of a very small object. We

may not be able to tell whether a train, a mile away, is stationary, or is moving towards us. Weak sounds, like weak smells, can give rise to confusion.

Knowing the limitations of his senses, man has evolved various aids to improve his perception of outside events : the telescope, the microscope, the thermometer, the microphone, the sensitive balance, these, and many other devices help to extend and to improve our sense perception. Once he has an accurate data of events, man can bring his power of ratiocination to bear upon it, and, with the aid of pure science—mathematics—can gain vast knowledge, but he can also make most remarkable mistakes, like the Theory of Phlogiston.

How does the process work ? Consider for a moment what happens when sense impressions are received. I hear the sound of a two-stroke engine, and this information is passed to that part of my mind where memories are stored. There I have a record of a number of objects connected with this particular sound. One of them, a motor cycle, sails into my field of awareness. What sent it there ? Our materially conditioned reason may well suggest some kind of resonance ; the sound of the engine causing the memory of the motor cycle to become somehow stimulated. We must ask our wisdom to point out to our reason that it is acting unreasonably in assuming that there is such a close analogy between the behaviour of mind and matter. The process is probably quite different, and it will not be profitable to speculate on its nature. For our purpose it will suffice to recognise the fact that a sense impression is capable of activating our memory data so that it is brought into the focus of our consciousness. In the example quoted, I subsequently looked out of the window and saw my neighbour operating a lawn mower. A new sense impression was received, a visual one, of a man wheeling an object of a certain shape, another memory was brought into my consciousness, and my reason decided that this was the correct one.

In establishing material facts we rely to a very great extent on our sense impressions, but we must not forget that they do not in themselves constitute knowledge. They merely trigger off within our memory records of knowledge already possessed, building up an association in our narrow field of consciousness : we see a glistening patch at the edge of a meadow, the memory of the appearance of water becomes stimulated, yes, we say, there is water.

In this, the usual process, we are actually aware of the sense data received, even before the memory response arrives. But this is not the only way in which our mind can work. I mentioned earlier that, when a weak sense impression is received, and we are aware of it, often the wrong memory record becomes stimulated. Recently experiments have been carried out with sense impressions

too weak to be perceived as such by the conscious minds of the subjects. In these experiments use was made of visual stimuli of extremely short duration, and sounds of very low intensity. Notwithstanding some adverse criticism, it does appear that in many cases these stimuli produced the correct memory responses. Thus two questions may be asked : is conscious knowledge of a sense impression necessary for producing the correct memory reaction, and, in the case of subliminal stimuli, are we really dealing with sense perception ?

It seems to me that the answer to the first question is in the affirmative, for a sense impression, too weak to be clearly recognised, will prompt a haphazard guess. But in the case of the experiments just mentioned, it does not seem unreasonable to suggest that the mechanism of perception did not include sense organs. In saying this, I do not suggest that we were dealing with telepathic phenomena, in other words that the subjects were somehow reading the thoughts of the experimenters. This could have occurred, but it seems very unlikely that the minds of the subjects, who in these cases were unaware of any experiments being conducted, were in such close contact with the minds of the experimenters as to bring about telepathic communication. Such knowledge as we have of telepathy does not support this possibility.

Whatever the mechanism involved was, we can be certain that it was unfamiliar, and by this I do not necessarily imply that it was paranormal. I have, indeed, great doubts whether anything justifies this label, so often applied to certain modes of cognition not involving sense perception. Just look around us—a pigeon will unerringly find his way home, often from a very great distance ; a dog will know you are approaching, long before he can see, hear or smell you ; wild animals find water in the dry desert ; vultures know when death is about to strike. These, and many other feats of primitive minds are not the outcome of sense perception. They are not to be dismissed as instinct, that mysterious inherited skill, demonstrated so beautifully by the spider. They are direct perceptions of truth ; intuition, if you like that term.

If primitive minds are capable of such accomplishments, we can surely expect far greater things from the highly developed mind of the human species. And indeed we get them. The achievements of artistic inspiration and inventive genius are so well known that we take them for granted, and make no attempt to gain any understanding of how they come about. On the other hand certain remarkable functions of the human mind, apparently not involving any conscious activity, have attracted much attention and stimulated a considerable amount of rather unprofitable research work and speculation. Of particular interest to us are those mental phenomena in which the hand of the person

concerned becomes the involuntary instrument of thought expression, and I refer here to the phenomena involving the use of the ouija board and those of automatic writing.

The ouija board has the letters of the alphabet written upon it, and arranged around the periphery of a circle. The operator places his or her fingers on a small object, capable of sliding freely on the surface of the board, and, as a rule, does not look at the board. The pressure used is very light, and, if all goes well, after a while the slider begins to move, pointing to various letters in succession, spelling out words. The operator frequently remains unaware of these movements, which on occasions can become so fast that one would hardly be able to produce them by a conscious effort, looking at the board. Sometimes several persons operate the slider together.

The most remarkable example of intelligent information conveyed by means of a ouija board, clearly without the conscious knowledge of the operator, is the celebrated case of Patience Worth, described briefly in the December, 1956, issue of *Light*. There are many other cases on record, and the one in which a message was spelt out, accurately foretelling the death of a lady, has received much publicity a short while ago. The method used was similar to that of the ouija board.

There are many striking records of automatic writing, that is, writing done without the conscious mind of the writer taking any part in the process. Generally speaking, such writing is done at a great speed, and it does not resemble the normal handwriting of the writer, who is often completely unconscious when producing the scripts.

Whilst it is not always clear whether the information conveyed by these means originated outside the mind of the writer, usually described as the medium, we can be reasonably certain that it was his unconscious mind that in the ultimate stage actuated the muscles directing the slider or the pen.

But only when you read the story of Patience Worth, when you see the automatic scripts of Stainton Moses, when you study the writings of Mrs. Verall and Mrs. Willett, and observe the references to Berchtesgaden and Munich, made in automatic writing in 1915, will you begin to appreciate how remarkable these phenomena are, and how simple, by comparison, the dowsing technique is.

Let us examine briefly the mechanics of the three most commonly used methods of dowsing. The mental opening is the same in each case : the dowser asks the question to which he is seeking an answer. For example : Is there oil in this area ? Is this water fresh ? Are these mushrooms good for me ? and so on. It can be almost any question, but normally it will be one to which the dowser knows from experience that he can get a reliable answer. Sometimes the question will not be addressed to anyone

or anything in particular, but not infrequently it will be directed to the dowser's favourite instrument, which he will then consult. If this instrument is a forked divining rod, he will hold it in such a way that it will behave somewhat like a snap-action toggle switch, precariously balanced in its neutral position. When the rod is held in this manner, a very slight movement of even one hand will cause it to swing suddenly, usually in the downward direction. Make no mistake about it ; this movement is produced entirely by the elastic recovery of the rod held under tension. The contribution of the dowser consists of holding the rod in this way, and of slightly altering or relaxing his grip at the right moment. This last action is entirely involuntary, and so he is under the impression that the rod moves of its own volition. We often hear dowsers speaking about " the pull on the rod," an expression which I have mentioned earlier, and which in fact means simply that their hold on the rod is weakening, without their being aware of it.

The use of the forked rod requires a fair degree of skill, and can be rather tiring. This is one of the reasons why some dowsers prefer to use a pendulum.

The pendulum, as used for dowsing, can consist of almost any kind of light weight attached to the end of a cord, a thread, or a thin chain. Often we see a dowsing pendulum beautifully fashioned out of a costly material, such as ivory, suspended on a pure silk cord or a silver chain. Some people will argue that such a pendulum cannot really be any better than, for example, a sausage tied to a piece of string. But those familiar with mental phenomena related to mediumship will appreciate that the average dowser must like his instrument, and acquire a kind of faith in it, in order to obtain the best results. These requirements account for the various fancy designs of dowsing devices.

To set a pendulum in motion, it is necessary to move its bob from the position it occupies when at rest. The dowser achieves the same effect by moving its point of suspension. Once the pendulum is moving, only a very tiny input of energy is needed to keep it in motion, but it must take the form of impulses applied at the right points of swing and at the natural frequency of the pendulum, this frequency being inversely proportional to the square root of the pendulum's length. This sounds much more complicated than it in fact is, for, just as in the case of a clock, the pendulum itself releases at the right moments the impulses that keep it going, so in the case of the dowser the rhythmic pull of the pendulum indicates to that part of his mind that does the dowsing, when to apply the impulse. Those dowsers not sensitive enough to feel the pull of the pendulum are guided by sight only. Some extraordinary hypotheses have been put forward to explain why, when they close their eyes, their pendulums stop working.

A dowsing pendulum is capable of swinging in various directions, and of gyrating clockwise and anti-clockwise. Also, according to the length of the cord used, its frequency will vary, as already described. These movements form the basis of a code, sometimes childishly simple, not infrequently highly elaborate, but never more than a code, enabling the unconscious mind of the dowser to convey information to his consciousness. Even a superficial examination by an experienced investigator of the technique of a number of dowsers using pendulums will clearly show that the process bears the unmistakable stamp of a purely mental phenomenon.

The third most popular device, used mainly in conjunction with so-called Radionic instruments, but nevertheless a purely dowsing device is that invented by Dr. W. J. McRoberts. This consists essentially of a thin sheet of soft rubber, stretched lightly over a smooth surface. When this rubber is stroked lightly with the fingers, nothing happens, but, as the pressure of the fingers is progressively increased, and the stroking continued, the point will be reached when the fingers will tend to drag the rubber along, stretching it to a degree at which it will keep snapping back, so producing a characteristic rattling sound. In use, the dowser strokes the rubber with a pressure just insufficient to give this reaction, so that the slightest contraction of the flexor muscles of his fingers will produce the effect just described. As this contraction is an unconscious reaction, the dowser is under the impression that suddenly the rubber tends to stick to his fingers. Curious things have been said about this simple device : it was necessary for it to have a cavity of a definite and critical size under the rubber, it worked by virtue of the electrical charge built up on the surface of the rubber, the " sticking " of the rubber was produced by a sudden exudation of moisture on the finger tips, and so on. I am afraid that these red herrings carry not a single scale of truth upon them. The instrument as such has no particular merit, unless the user likes it, and prefers it to anything else, when it will give very satisfactory results.

No description of the dowsing technique would be complete without a reference to the so-called " samples." I said earlier that a dowser, looking for a gold sovereign, would have with him another sovereign, a piece of gold, or a piece of paper with the words " Gold Sovereign " written upon it. The sample is no more than a simple directive telling the unconscious mind what is required. It has no other significance whatever. The placing of it in a particular location, for example inside the pendulum, or in the left hand of the dowser, is just an individual habit and no more. If, without the dowser's knowledge, such a sample is removed, or replaced by an entirely different one, it will not in any way affect his dowsing ability. So long as his habit of placing

the correct sample in the usual place has been followed, all will be well, for his unconscious mind has received its instructions in the customary manner.

Similar remarks apply to the use of samples in medical dowsing, that is, dowsing used for the purpose of diagnosing the complaint from which the patient is suffering, and finding a suitable remedy. This subject, well populated by red herrings, is, however, so large, that I cannot deal with it on this occasion. Suffice to say that I have no reason whatever to think that it is anything else than a purely mental phenomenon, basically identical with dowsing as practised since time immemorial, possessing all the characteristic virtues and shortcomings of primitive mediumship. Some of these can be baffling to the practitioner and the onlooker alike, for such is the nature of mental phenomena of this kind, that, for example, the dowser may find his reactions to be much stronger and more reliable when he is facing West, and when he is electrically isolated from the ground. Another dowser, however, may find that he has to face North, and be electrically connected to earth, to obtain the best results.

Dowsing and advanced mediumship are not arts, but they are more akin to art than to science. So, just as we tolerate the idiosyncrasies of artists, we must cultivate a benevolent respect for the seemingly indefensible ideas held by many dowsers, for, if we insisted on every dowser having no illusions about his work, we would find ourselves with precious few dowsers left. I said that we shall never find the complete explanation of dowsing; indeed, we shall probably never find the complete explanation of anything. But any, however slight, progress along the path of understanding of the human mind will be of inestimable value to the human race. Psychical research has opened the way, but has not taken us very far in that direction. Perhaps it has started too high up the ladder. It is, I think, highly probable that greater progress will be made if we devote time, energy and such money as we can find, to the study of the simplest form of mediumship—dowsing. By saying this I do not suggest that the task will be an easy one, for probing the world of mind is like wandering through a land of make-believe, camouflage, and decoy, and the investigator venturing there must be constantly on guard, and must never forget that "All that glisters is not gold."

DOWSING IN EAST AFRICA

The following report has been received from our member, Mr. A. C. Williamson, regarding two completed bores, the sites for which were located by him. In it are shown his predictions for depth and yield, as reported to the Editor by him when the locations were made.

Site No.	*Date* 1957	*Location*	*Depth in Feet*		*Yield in Gallons/Hour*	
			Actual	*Predicted*	*Actual*	*Predicted*
11	July	Weruweru, Moshi	273	200 to 280	2500	50 min. to 580 max.
12	Aug.	Riverside, Sanya Juu	118	150 to 230	3600	3000 min. to 12500 max.

As regards No. 11, Mr. Williamson writes :—

" Very satisfactory in respect of quality of water and in prediction of depth range. The quantity of water, however, is much more than was predicted."

And regarding No. 12 :—

" Another very successful hole in every respect. The water rose within 4 feet of ground level. Water-worn pebbles and stones were brought to the surface by the baler when the underground stream was struck. My maximum prediction here was 12,000 g.p.h., but the test pump working at full capacity could lift only 3,600 g.p.h., and this made no impression on the water level in the hole. A large capacity pump is being imported into the country to fully test this, and other sites which I have dowsed and which exceed the lift capacity of local pumps."

No predictions for Nos. 1, 2, 3 and 4 were received, and other bores up to No. 15 have not yet been completed.

NOTICE OF ARCHÆOLOGICAL DIVINING

BY L. J. LATHAM, F.R.G.S., F.G.S., F.R.A.S.

Substance of an Address prepared for the 1957 Congress at Moor Park College, which the author was unfortunately prevented from delivering.

Mr. President, Ladies and Gentlemen, I thank you for the honour you do me in inviting me to present your Congress this year with a paper on one of my special studies in Radiesthesia. Some academic recognition of the possibilities of radiesthesia in this respect was adduced last Trinity Term when Oxford University's Archæological Faculty invited our Society to address it upon the subject. Inevitably, much of what I have to say to-day must embody the substance of what I said in my paper at the Ashmolean on that occasion. And as to my claim to discourse on this branch of divining ; it is twofold. Not least I count the fact that, myself an archæologist, I can recall with gratitude a hundred happy hours in its pursuit snatched from a busy life. But perhaps more specifically I have had the fortunate experience of employing divining itself in actual published archæological discovery. Indeed, I look back upon both field and surface researches across sites as widely scattered as Kensington and Colchester, Syria and South Arabia, and Egypt and Israel.

In a welter of written legend, tradition, mistranslation and even forgery, we can hardly base our study of the past solely upon the books with which we and our ancestors have surrounded ourselves. Only tools like the spade offer results tangible and exact enough for our purpose. The record thus recovered before our eyes, as it were, can be fairly readily interpreted by the expert into a proper historical context. Indeed, comparatively imperishable material, such as coins and other artifacts have normally a written message, and are frequently even dated by some era or other. Should there remain any last consideration to commend archæology to this Congress, it is that we are ourselves a most ancient and varied craft. We have roots, often shadowy and half-forgot, among all manner of peoples, lands and epochs. Let us therefore acknowledge that any study which investigates and perpetuates mankind's lore, his secrets, his beliefs and his traditions must command at once all our loyalty and service.

I think we may agree at the outset that there seem few among us indeed who have any experience of archæological prospecting by dowsing, fascinating as is this branch of our work. Not unnaturally, pride of place has more often been accorded to what we felt were the obvious needs in fields of minerals, water and medicine. It should therefore be stated at once that the same broad principles of operation apply here as in other dowser

activities. For example, there are the same problems of fatigue, distortion, interference, autosuggestion and error cycles that dog the operator with such persistence in other types of prospecting. Added, however, to these ordinary working troubles, we find in archæology an especially difficult complication. For herein, unlike the more substantial deposits of other *sorciers*, we are handling material that is often frail and destructible. Despite skilled and extreme care, the excavator can wreck vital evidence and disarrange otherwise readable strata. You will see at once that any method of detection that can guide the spade in these necessarily delicate delvings ought to command attention. But in this as in other fields of science, and let us confess not without reason, one often remains dubious as to the over-enthusiastic claims of the diviner. On the other hand, even were this ancient craft only partially effective, and then only under ideal conditions, it still justifies full field trials, provided always that these be carefully supervised. In practice in fact, no such extreme view against the dowser's claim is tenable, since the detectable matter of an archæological dig is as capable of discovery by a skilled and experienced worker as is water or any other specific. There is certainly enough evidence to show that more tolerance, opportunities and training would reduce our margin of error to the extent that we should prove quite useful members of any field team. But unless and until you are yourself a trained archæologist, be careful that you only indicate where excavation should take place. Too much damage can be done by unskilled hands for you yourself actually to meddle in the strata. Fortunately, in this class of prospecting, most deposits are not far from the surface, so that no error of judgment on your part can involve anyone in useless boring costs running into hundreds of pounds.

The average diviner called upon or permitted to guide such a dig would be well advised to first acquire from a friendly local museum curator fragments of the type of materials which he may expect to detect upon the site in question. Specimens of brick, Roman to Tudor in range, are obvious requisites. Antique shops and jewellers can often cheaply provide samples of ancient coins of the various metals, the period of which can be established by reference again to one's museum authority. From the same source too, can sometimes be obtained small fragments of the stone or the aggregates of which buried works are likely to be constructed. It should be here understood that these specimens are to be collected for use as field samples for the basic chemical element as expressed in the dowser's reflex. There is no sort of occult identity as between, for example, one coin and another. The diviner is merely reacting here to objects of different chemical composition, and it is precisely this difference in chemistry as between one portion of a deposit and another which is the diviners' sole concern. I think we may take it in passing that the doctrine

of sample reading is now widely tested and is agreed among most of us. As indeed is also the concomitant doctrine of serial figures, as expressing a measurement of the relative dowsing strengths of the detectable elements. Even though we are not all in perfect agreement as to the position of such elements in our personally ascertained table of these strengths, we ought at least to master the accepted theory of samples and serials in so far as this is to affect the physics of our archæological work. The importance of this doctrine will be realised when it is recalled that archæological material rarely consists of a single element. The aggregates of ancient mortars for example are necessarily conglomerate in admixture, and can range from Roman to high alumina cements with the accompanying physical differences. Within such ranges, the diviner will not merely necessarily detect an emanation for carbon, or silicon or magnesium, but for the predominating element (radiesthetically) within the compound. Indeed, in this straightforward field dowsing, there is no such thing as a compound's emanation, an alloy's or other aggregate's emanation. In ancient metals, both bronze and silver again are alloys, as only thus are they traditionally workable or durable. In having thus touched upon the value of samples, both as amplifiers and as insulators against extraneous effects, it may be fitting to mention the not-so-widely accepted theory of colour samples. And here your speaker must confess at once in fairness that he has never himself devoted much time to the investigation of this system, and so far as he personally is concerned, his results have not been as conclusive as those when direct physical samples were employed. I express it as a personal opinion therefore, that with a sample in no way agreeing in form, composition, appearance (or even colour !) with the deposit, the link is far too tenuous for reliance in such a practical class of dowsing. In any case, I have always been a little worried since a distinguished physicist warned me with some severity that strictly, colour was non-existent ! Similarly, where fully physical samples are available, I personally would never advocate the employment of mental imagery as a sample. Here again, unless one is a positive fakir, assured of his yoga efficacy at the exact moment of operation, the link is all too vulnerable for dependability.

Having touched thus, all too briefly, upon what I may call the physics of our subject, let us now pass on to a consideration of the actual apparatus most often in demand. You will readily appreciate, I am sure, that the special field problems of archæology require of us in turn special equipment to cope with them. Classed under this heading more by convenience than respect, one needs, above all, a first-class caddy-cum-comrade. Much of your success in any field work will depend upon this worthy, who must have certain qualifications. First, there should be the patient, ox-like temperament that can slither interminably through

mud in your wake loaded with paraphernalia. Not least in importance too, this assistant should know enough of dowsing, and, above all of you, to be quite incapable of expressing astonishment at anything you do. In practice, husbands or wives, by virtue of their vows and other commitments, normally fulfil this miserable role ideally. The actual gear needed is simple, though difficult to restrain in one pair of arms, especially in the absurd climatic conditions that invariably obtain at excavations. As a short list one may mention the bag of wrapped samples, marking pegs and something to drive them in with, measuring tape of at least fifty feet, and, for your own sake, a camera. Also invaluable for this work, we may mention an ordinary fencing foil, sharply pointed ; not tipped. Although this sounds a wild addition, I have found it indispensable in probing meadowland down to a depth of three feet to check one's shallower emanations. But one must do this gently owing to the danger of breaking important material below. One has only to add watch, compass, sketchbook, pencils, large scale map, to say nothing of sandwiches for two, to see that our assistant has to be ox-like in more than mere temperament. It may also chance, on top of all this, that you are one of those distinguished people with bad memories. If this is so, your assistant will also carry your list of serial figures and a list of ancient units of measurement with modern equivalents.

From our brief notice of apparatus, we can move on with your permission to our actual field methodology. This does not perhaps, present any great variations from the ordinary field work we normally employ in other prospecting. Owing, however, to the shallowness, comparatively, of the deposit, with the relatively close contiguity of walls, the surface pattern of emanations can be exceedingly difficult to interpret, and, if out of reach of our epée, can take many hours of patient labour to stake out. Imagine for a moment if you will, a structure of uncertain origin some five feet below the turf. It comprises possibly, among other features, a number of small chambers adjacent to each other which seem to measure some ten feet square. It is suspected archæologically from such surface evidence as has survived, that the building is constructed of dressed limestone blocks. The site itself is bedded across a basically limestone substratum closely akin in origin and chemistry to the building you are prospecting, so that in effect, the vertical emanations rising from the structure's edges are muffled in definition by association with their underlying strata. All that the rod can here detect is the minute chemical difference existing between the quarried stone and the natural bed, a difference due solely to chemical change through the weathering of the former in the centuries before submergence. Add to this muzziness the intricate pattern of primary emanations, criss-crossed by the deposit's secondary or false (depthing) zones, and you have an absolute maze to unravel. (Incidentally, having at last made

mention of a divining rod, it is as well to mention that this easily lost object, together with pendulum, is not normally entrusted to the luckless assistant. The pendulum lives quite comfortably in its small bag in one's pocket, whilst the rod, in order to keep up the bald externals of sanity (!) is in practice held quite safely in one's sleeve).

Upon arrival on site, many diviners would prefer to cross the area in a rapid cast with rod alone, without samples of any sort, the rod being held lightly so as to pick up only major lines of force. There will, as we all know, be quite a few nebulous and perhaps meaningless emanations in most self-respecting British meadows. That school of thought which believes in the amplifying effects of terrestial magnetism will here wish to select the southern or northern boundary to work from, according to whether the emanations are positive or minus. Whatever one's method or technique may be, your assistant pegs out your pattern, leaning pegs away from the walls delineated. You can thus rapidly build up a rough picture of what is " downstairs," and can tell at a glance whether the pattern thus presented is man-made or natural, or, indeed, the maddest of most mad nightmares (this last being by no means outside our experience). The curves and irregularities of geological formations are, of course, easily distinguished from the normally ordered forms of architectural structures of a past age, with their proportionate themes. But presuming that your image has in fact resolved itself into a man-made deposit, you are faced with your hardest task in arriving at any floor-plan by patiently eliminating depthing lines from main runs by their relative strengths. Successive casts across these main runs employing samples in order of probability should soon establish whether your structure be of brick, sandstone, limestone, flint or even a cement mortar filling, bearing in mind that all dressed-stone facing may have been pillaged for subsequent structures elsewhere down the ages. Having thus by sample discovered some amplifying sympathy with our deposit, it is safest to complete all wall-tracing with the sample to which you find it related. Not only will the resultant amplification reduce our error constant, but it will effectively cancel out extraneous emanations ; a most welcome aid when dealing with the crumbling and ill-defined sort of alignments typical of most ruins. With regard to isolated pocket emanations (as distinct from main lines), the pendulum comes into its own. Provided you can arrange shelter from wind and rain, the pendulum has a superior definition and an accuracy impossible in the rod. This technique is always indicated when approaching, for example, a metal object whose presumed frailty will demand an inch-by-inch clearance.

It may chance that all this can happen to you in a free-lance capacity, and that you are your own archæologist with only an

owner's permission to investigate. (You should take warning in this event, for an owner's permit is of little avail against the scorn and machinations of organised archæological science, as represented by the powerful county and municipal societies, apart from the university faculties, the Office of Works, Historical Monuments Commission and a host of other vigilants. All these good and highly trained souls are properly anxious to be in on matters affecting them, especially the museums, and by enlisting public interest through the press, can effectively disturb the peace for your site and its hapless owner). But should you be, as I have said, nominally your own master, there exists of course a variety of interesting methods for diagnosing the actual type of ruin which you have thus plotted, and this long before excavation is decided upon, for example, there is a world of difference between the surface plan of a pre-Roman earthwork (or rather the subterranean remains of one) and a Roman fortified camp. And it is worth noting here, touching upon pre-Roman works, that the tiny mounds called " Tumuli " or " Tumulus " upon large-scale Ordnance Survey maps are normally Celtic barrows (or burial mounds), whose pathetic contents have long since been dispersed by the casual plough. The early British earthwork has traditionally a circular or ovoid plan, whilst the Roman camp is classically square or rectangular, with encroachments and annexes well known to every schoolboy from his illustrated history books. Perhaps it ought to be explained at this point that although no stone or brickwork occurs in either Celtic or very early Roman work, and although the suspected area is almost invariably levelled by centuries of denudation and agriculture, the site is by no means dead to a careful diviner. The minute chemical differences induced originally by the pugging and ramming of escarpments, the nitrogenous residues from timber baulks long since rotted to oblivion, the humus of years of human drainage and the phosphorescent leachings from repeated sepulture have each their eloquent whisper for a rod in the right hands. The difference in plan too, between the encampment and the villa farmstead, is, as one would expect, apparent by common sense rather than by scholarship. Coming up the scale to mediæval remains, it is no great test of intelligence to discriminate again, between the layout of castle, church, manor house or monastery, and, whatever our architectural ignorance, we have always surface references to assist us through our admirable library service, since each district has its well-documented peculiarities (many of which were enforced by the type of stone, transportation and other facilities which were available). As to monasteries and other religious houses, each order tended to develop its own well-marked fashions in building. Thus, a Benedictine abbey is recognisable alike in Nazareth, Monte Cassino or Colchester (and for that matter, in 1200, 1536 or 1957 A.D. !).

As to our rich heritage of fine old churches, you may perhaps feel that since they have always been centres of veneration with very few breaks, they have been carefully tended and their position and form invariably preserved. You will find, unhappily, that this is far from the case, and that the tale of neglect and, often, outright vandalism reached its peak under our early Victorian ancestors. But one must be fair and admit that the sense of responsibility in this respect varied enormously throughout the forty-three dioceses of the Establishment, but there, neverthless, remain plenty of divining problems. For example, there are many cases of whole aisles, transepts, and, as in a famous Sussex case, naves (!) abandoned to ruin owing to lack of upkeep or population drift. It is often an interesting poser to delineate the former dimensions of the building from its footings, which are still detectable by the dowser beneath the churchyard sward. Your speaker to-day is fortunate in having had a rare grounding in such problems, since, in the 'thirties he compiled in the Victoria and Albert Museum an index of the twenty thousand-odd pre-Reformation churches of England for the Central Council for the Care of Churches ; all this under Jesse windows, Norman doorways, Saxon fonts and so on. We may conclude the ecclesiological side of our subject by quoting an example typical of such cases. At St. Osyth in Essex it was long suspected by the county antiquaries that there had been a north aisle whose limits must have considerably exceeded the extant Tudor church. It will be recalled that canonically, only felons such as witches were buried on the north (or unconsecrated) side of a church, and consequently the area in question was normally undisturbed. Careful casting across the suspect area yielded a strong pattern of the long-lost north aisle, which I then checked with the epée ; the first time the values of this weapon had occurred to me. In this case, the hidden structure was dateable by the rest of the church since the divining rod plotted, surprisingly, what is known as the Oxford corner on the end buttresses. This feature, which reached the area in the early thirteenth century, consists of one buttress running out at forty-five degrees from a corner, instead of the former two at ninety degrees respectively. It is in this sort of enquiry that the divining rod excels ; cutting down subsequent excavation costs to a minimum ; reducing to a mean the time at which an inconvenient dig has to be left open, and ideally, steering excavation with that caution needful to preserve associated material from casual damage.

It remains but to remind you all that in the spacious days where builders had room to obey canonical tradition, chancel apses and the feet of tombs and graves will be to the east. But as White of Selborne, observed, the workmen must have mostly laboured on the longest days and pointed these features at the rising sun, for there is a lot of north deflection in such official eastings.

Bearing in mind that it must often happen that we arrive at a fairly complete plan of some ancient buried structure, it will be of great importance to have a working idea of early measurements, for these yield a mathematical clue as to the date of the building. However casual and haphazard may have been the savage Celts of these islands in their methods of construction, the reverse is true of the civilised invaders who subsequently settled here. Indeed, since the pyramids themselves, building construction has ever disclosed a fine regard for mathematics, metrology and mechanics. Even in days boasting a plentitude of slave labour and a despotic command of materials, the mechanics of construction ever demanded architectural planning. Work had to be estimated in terms of time and materials, with adjustments for local transportation and other factors. Then, as now, quantities had to be properly costed within an over-all estimate. Thus we do in fact find that in practice the dimensions of early structures among civilised peoples were finely computed in their respective proportionate themes. And not infrequently, as in the well-timbered west, the overall extent of a structure was dominated by the average length of available beams in roof trusses. It is thus easy to visualise how in those pre-steel days the height of our British oak controlled the span calculated by Roman, Saxon and Norman alike. (In like manner, incidentally, the world's naval architects down the centuries found their designed tonnages similarly restricted in an age of wooden capital ships). And this stalwart native servitor of ours, the oak, deserves a passing salute for the ages during which it so loyally housed and floated us islanders long ere we mastered the harsh ores that superseded it. Our ancestor-builders liked to fell it some time between its 100th and 140th year. Although its extreme height could be some 100 feet, it was rare indeed for botanical reasons, for the effective length of any structural member to exceed thirty feet. Thus, if on your site you have laboriously plotted something the size of King's Cross Station with no hint of medial supports, then it is definitely one of your " off " days !

Let us now briefly examine then, the sort of measurements and their multiples, that your pegged distances are going to resolve themselves into ; supposing, that is, that you have found a genuine ancient structure. And lest you feel that we have overstated the case for measurements, we are assured by Plutarch (120 A.D.) that the local building contractors used to dub the Parthenon " The Hecatompedan," from its hundred-footed front ! Firstly, if our building be Roman, our distances are going to be computable in the *passus* and its multiples and units. This was a kind of long yard of four Roman feet that was common to both Gaul and the British Provinces. The Roman foot itself (*pes*), originally the length of a human foot, was in the west the Drusian foot, and was somewhat shorter than our modern one. The ancients seem to

have experienced an amusing difficulty in deciding what ought to be the perfect foot, and their attempts ranged from the Greater Ptolemaic foot of 13.98 inches (our modern inches) down to the old Italic foot of 10.83 inches. The Drusian foot in use here was 11.65 inches, or more exactly 296 millimetres. Should your site be in mediæval Welsh strata, you will be dealing with a tiny 9-inch foot, while the Scottish Middle Ages boast one of 12.064 inches. Coming up to Saxon stratum, we meet another long yard; literally "geard," originally a man's girth. Here again, different tribes seem at a nice variance as to what constituted the healthy warrior girth, and one hale and hearty group felt that it ought to be forty-nine (modern) inches. This they called the ell, and this solid edition of it has been preserved by tailors in England to this day. The French tailor's ell seems to have remained in the region of fifty-four inches. And I may add without comment that the Scottish tailors have contrived unnoticed down the centuries to whittle their ell down to a mysterious thirty-seven inches! Exasperated with all this sensitivity about middles, Henry the First, a massive monarch in more senses than one, declared as law, that the ell must be his own arm's length, in other words forty-five inches. He thus invalidated the old Norman French ell, or *aune*, which the Conqueror imported at 46½ inches. Henry IV confirmed this forty-five-inch verge, or yard, in 1409, but there is evidence that the measurement increased slightly after Henry VII (1485). It was finally fixed at its present standard in 1706. I regret that the metrology of our subject has detained us so long, but we have attached no more importance to this matter than would a semester of an archæological faculty, and to the diviner, who must so often labour as a blind eye, there is ready to hand here a sure system of labelling for his emanations.

Since we live in a highly-documented state in which our University youth has expended quite a lot of its pent-up energies in organised digs, you may well think, Ladies and Gentlemen, that in so tiny an island there remain scant archæological discoveries to await your talent. But such is far from the case. For despite the highly organised state of modern archæology, we must remember that although from the point of view of the ancients Britain marked the misty limits of the world's end, it was ever rich enough to justify subjection. Periods of invasion were ever followed by wide meres of intensive colonisation and settlement, and in the turbulence of the times, ruthless counter-invasion with pillage and destruction meant the wholesale obliteration, often, of quite wealthy settlements. Thus, for example, despite the vigilance of the archæological faculty, there are on an average five coin hoards a year uncovered up and down these islands. Nor are there wanting documentary hints as to the wealth of sites and materials that yet await the spade. Manuscripts that have survived, such as the survey *Notitia Brittanorum* by the chronicler

Nennius, are cases in point. Nennius gave district by district (*comitates*) the number of Roman villas known in his day. There are wide deficiencies in the figures given by Nennius and the sites known to-day. There are also parochial references in Domesday to edifices which to-day have left no apparent trace. Coming up to Reformation times, there are many cases where wills have come down to us detailing gold and jewelled altar furnishings for famous shrines of which there is no mention as such in the subsequent inventory prepared for the monastery in question by Thomas Cromwell. But objects described by the testator often centuries before as of gold and gems have become, by the 1536 inventories, "sylver gylte sette with glassys." The clear inference here is that some abbots and priors saw the storm coming and had craftsmen copy their best treasures. In such times, the hiding places of the original pieces must have been known only to one or two superiors under a grave vow of silence, some of whose holders have clearly died with their secret. (In this connection, it will be recalled that the plate of Waltham Abbey was recovered within living memory).

Since the recovery of such valuables can be a decided development of archæology, it seems needful here to utter a few frank confessions as to that ancient dowser anathema, the treasure hunt. This, as we all know, has brought many a good and famous diviner to his knees. There are actually, sound technical reasons (known to several of us), as to why the treasure emanation as such is so fatefully coquettish, and these are beginning to be dimly understood. But despite that, the diviner is only human, and there is a limit to his resistance to the importunity of his public. And the more famous, the more honourable and the more disinterested he is, the more importunate is his clientèle. With no sort of claims to aspire to the foregoing illustrious category, even I can confess that a quite mediocre dowsing reputation built up over a mere quarter century of divining has been wildly squandered whenever I yielded to the treasure-hunt mania. Well might the ancient mystics assert the doctrine that a buried treasure is guarded by a host of dark sentinels from the spirit world!

Now allied somewhat to archæology, and thus deserving brief mention here to-day, is that class of commission in which one is asked to locate the lost place of sepulture of certain ancient and highly venerated personalities. These range from early kings to what I here choose to describe as sundry hagiographical personalities. In the latter case one can get uncomfortably embroiled in rival theologies, and, as if the divining itself were not difficult enough, you have to be a veritable Talleyrand of diplomacy in dealing with those with whom you must liaise. My own casebook for this type of commission alone is some two years old and involves sites from Rome to Canterbury. Fortunately, authorities appreciate that a problem already perhaps many centuries old, can well

wait a year or two for attention. Before leaving our field work, it would be well to remind you of such fascinating problems as that of Camulodunum's amphitheatre. Tacitus distinctly mentions, for example, that the city (Colchester) possessed a goodly arena, but no trace has ever been found of it so far. On the other hand, the late-lamented Colonel H. C. Davis, of this Society, and myself did plot a promising shape not far from the city which the fortunes of soldiering prevented us pursuing. The site is still meadowland, and might make an ideal meeting for a future Congress.

My time, Ladies and Gentlemen, is nearly at end, but before our good President throws open the session to your questions, I would like to touch upon the uses of divining in what we call surface archæology. This is defined as archæological research not concerned with excavation as such, and is normally done in our older libraries, sometimes, or in museum laboratories, upon antiquities already recovered or even the standing fabric of extant ancient buildings. In this connection you may be good enough to recall that my own special study in archæology has been numismatics, and that I have in the past had the privilege of exhibiting to this Society important suites of Biblical coinages from my own cabinets. In the course of this study, which I have pursued for more than thirty years, I have classified many large private and public collections throughout the world. And easily one of the greatest problems of such a study is that of forgery (this last a forbidden word tactfully rendered by archæologists as " copies " !). Now no two ancient coins, even from the same die, are precisely identical, either in weight or in chemistry. Since the pieces were handstruck for example, often by slave labour, there is inevitably a difference of compression, coin by coin. Moreover, the alloys of the metals employed remain far from constant, and apart from all this, isolated finds of the same series but from different sites will each have developed a specific chemical patination varying according to the chemical composition of the strata from which they were recovered. All this has made the work of the copyist, both anciently and in modern times, exceedingly difficult. But it remains a fact, that despite most expert technologies, there exist at this moment famous museums which confess to spending a surprising amount of public money upon such copies. And for obvious reasons, some rare pieces whose authenticity may be in doubt cannot be submitted to the erosive actions of chemical analysis, in view of the possibility of damage to a valued object. Now those among us who have delved more fully into divining lore may recall having been introduced to the plane ray theory of radiesthesia. This principle, which employs of course the pendulum, states that when precisely like objects are placed horizontally in juxtaposition there is detectable between them a ray of affinity. And many operators have developed an

extension of this formula wherein they prefer to align the objects along a north-south line, whilst not a few hold that a torch should be switched on down the alignment. Be that as it may, the detection of the minute differences of structure and of chemistry existing between a genuine antiquity and even its most cunning copy is in fact possible in careful plane ray work. This class of research achieved an official scientific acknowledgment when the President of the Royal Numismatic Society invited me to offer a paper on this technique. Although both bold and novel, this departure from routine numismatics was, I am glad to say, well received and indeed, was favourably (if cautiously), noticed in the Annual Presidential Address for that year. (*Proc. R.N.S.*, Vol. XX, 5th Series, No. LXXVII, 1940). In closing this survey of our potential value to surface archæology, it is interesting to notice that before the perfection of infra-red photography, at least one diviner worked regularly on hidden murals in ancient churches. The late Professor Tristram was the expert famous for church murals, and in many such ancient churches Dooms and other theological motifs of mediæval times were restored by his incomparable skill ; not the least of which were those in Westminster Abbey. These priceless monuments have invariably to be literally excavated from beneath centuries of limewash and other renderings. Working from a scaffolding with pendulum and pigment samples it became possible to plot the limits of the hidden paintings; a refinement in fact of the plane ray theory.

Since we are such severely practical people, the bibliography of archeological radiesthesis is in our langugage scant indeed. Since, so far, we have rarely concerned ourselves with this class of research, such works as we have given to posterity have had little to say upon the subject. I need hardly remind you that these works are many of them admirable, ranging from autobiographical canters of the great dowsers of the past, through the occasional translations of sound foreign books, and finally coming up to the great textbook of Maby and Franklin. This latter does not claim to be the last word upon dowsing, but this and other works await your attention in the Society's library, and it is to be hoped that more use will in future be made of that facility. Any aspiring to a peculiarly exhaustive bibliography in our craft should not omit the rare, but erudite Jesuit treatise " The Divining Rod and its Implications " by Herbert Thurston (*Month*, Nov., 1934). The author of this scholarly survey, the findings of which are overwhelmingly in favour of the veracity of dowsing phenomena, was the Roman Catholic heirarchy's official observer in this country on the Council of the Society for Psychical Research. An exhaustive writer and investigator on occult and kindred subjects, the writer's survey draws upon hundreds of ancient and modern references from foreign and classical sources in the great libraries of his order. (His study may thus be taken as reflecting

the official attitude of Rome towards our subject). The journal of our Society has been ever vigilant in providing down the years notes of archæological activity by members of this Society. That for March, 1940, reported the discovery by dowsing of ancient masonry beneath Kensington Palace Barracks. (This was detailed more fully in the journal for March, 1947). The March, 1946, number reproduced the photograph of a mural relief showing a Hittite mining officer almost certainly dowsing (1200 B.C.). Work on the identity of an important Nazareth Biblical site was recounted in March, 1947. In June the same year appeared the first of Underwood's interesting theses upon the relationships of underground streams with the siting of pre-historic barrows. This was continued in the December number of the same year, and again in those for March, June and September of 1948. The same indefatigable worker contributed his further findings in December that year; finally reporting again in March, 1951. An interesting contribution on Zimbabwe appeared in March, 1952, whilst the issue for March, 1955, portrayed some South African bushman paintings reminiscent of our early Hittite dowser. And finally, for what we may call a specialist form of surface archæology we are indebted to the issue of December, 1956, for a notice on the Shroud of Turin. This, Mr. President, Ladies and Gentlemen, concludes my summary of our subject's bibliography, and brings us to the end of these remarks. If I have succeeded in interesting your good selves even a little in this fascinating branch of our craft, I am well content.

MICROSEISMIC AND THE DOWSING PROBLEM

BY DR. (PHIL. AND MED.) JOSEPH WÜST

Translated from the Zeitschrift für Radiästhesie, 3, 1951. Vol. 2, *and reproduced with the permission of the author and the Herold-Verlag, München-Solln.*

Microseismic is concerned with the small mechanical vibrations and shocks which take place in the ground, and the object of this article is to point out their significance for the dowsing problem, noted as a result of an accidental observation.

During my collaboration, as a dowser, with J. Wimmer, there occurred, during an afternoon spent on experiments, sudden and repeated interruptions to our work, taking the form of persistent turnings of the rod whilst the usual reactions were discontinued. One day I heard that the large extracting ventilator of the Anatomical Dissecting Department in the room below the roof, on top of the wall which forms the eastern wall of my laboratory, had stopped running just when Wimmer noticed the end of an interruption. After about half an hour of continuous work, the interruption suddenly started again at the exact moment that the ventilator again began to run. This happened several times, always in the same manner. After I had observed this coincidence during several days, I mentioned it to Wimmer, who was very much surprised. I then arranged that during our hours of work together the ventilator should be turned on as infrequently as possible. It then appeared that other noises, including musical notes, caused similar interruptions.

From a study of dowsing literature from this new point of view, I discovered a number of relevant observations by earlier dowsers. An Austrian woman dowser, for example, experienced irregular movements of the rod at a distance of over 100 km. from an approaching Zeppelin airship, for the infrasonic waves from heavy motors spread out, as is well known to the technician, very widely in the air and in the ground ; another dowser accurately located on the surface places where the trucks in a mine several hundred metres deep were running and when miners were working at the face ; when work was not going on, the locations of subterranean lodes and galleries was no longer possible, which clearly showed that he was reacting to the noises and shocks conducted through the rock. A South American missionary once wrote to me that in his parish in the Cordilleras there were several Indians who, by means of characteristic reactions with the rod, could often predict hours beforehand the occurrence of earthquakes and eruptions. They probably

reacted to the so-called foreshock which regularly precedes large movement in the earth's crust. Before the earthquake in Messina in 1907, and the explosion of Mont Pelée on the Island of Martinique, all cats left the town and crept anxiously into holes and corners. Anyone who watches a cat hunting a mouse in a field must have got the impression that it feels the minute earth tremors, which are caused by the mouse burrowing or running about in its lanes. It often follows with delicate tread the track of the mouse crawling below the surface, and snaps it up when it unsuspectingly emerges from the hole. The simplest explanation of all these observations is that dowsers, just like cats, respond to minute earth tremors which are unappreciable by ordinary methods.

In my study of the scientific literature dealing with Seismics, I discovered, especially in the informative book by Dr. B. Gutenberg, *Die seismische Bodenunruhe und ihr Zusammenhang mit Nachbargebieten, besonders mit Geologie und Meteorologie*, Berlin, 1924, a wealth of interesting and relevant observations which threw new light on the dowsing problem, especially on the causes of the dowsing reactions. The chief causes of the small and continuous earth shocks in thickly populated areas are the industrial and commercial establishments for which man is responsible. At such places there is continuous hammering, hitting, jerking, shaking, crashing, smashing and blasting ; heavy steam-engines, and internal combustion engines are always running ; masses of water are rushing through giant turbines and pour over foaming weirs ; heavily laden trains rattle over the rails, and enormous lorries over the hard roads. And on top of all this, giant aeroplanes fill the whole air with their droning.

Besides these sources of earth shocks due to the necessary conditions of our civilisation, natural phenomena such as waterfalls, rough seas, storms, swift variations in air pressure, play no small part. Further, the effect of ground frost over wide areas is a source of small and persistent earth tremors. Similar effects are caused by the alternatire heating and cooling of the ground from day to day and year to year. In most cases the result is the production of shocks with oscillations of .1-1-10 cycles per second, and an amplitude of several thousandths to tenths of a millimetre. These shocks can be propagated to great distances, as such long vibrations in the ground are only slightly absorbed.

Whole continents can be shaken by the breaking of waves on a steep coast. Heavy seas on the Norwegian coast can be felt as far as Moscow and even Irkutsk (Siberia), whilst surf on the Scottish and Irish coasts shakes the ground as far as Middle and South Germany. Storms on the rocky coasts of France and Spain increase the seismic disturbance in the whole of Spain, France, North Italy and the Alps. Violent hurricanes and

typhoons, which rage over the sea and which, over short distances, bring about enormous differences of air pressure, are now registered at distances of several hundred metres by seismological instruments on the Phillipines or on the south coast of China, whilst severe storms in the Balkans shake the whole of Greece and are perceptible even in Asia Minor. In this category of natural causes must be included volcanic forces in the earth's crust, such as eruptions and earthquakes on land and in the sea. They are noticeable over wide areas, those of greater intensity being sometimes perceptible over the whole earth. The earth waves caused thereby often encircle the terrestrial globe several times until they finally come to rest.

Nor is there ever a lack of natural causes for seismic disturbance in the ground. Their intensity depends not merely on the strength of the contributory factors, but to a considerable extent on the local conditions. Crystalline rocks of great age are relatively least affected, somewhat more so are dense lime and dolomite formations, and still more so sandstones and conglomerates such as breccia and nagelfluh. Dry light soils can produce an intensive effect when their thickness is small, but in greater thickness their effect is the reverse. To this class belong tufas, clays, marls and sandstones, alluviai deposits and scree. The water content of light soils considerably increases the seismic disturbance. It is strongest on bogs and marshes, and silted-up lakes, on reclaimed land on coastal areas, and in river beds. This is probably connected with the fact that the loose material suspended in water is more easily set in motion in such formations than in dry soils ; fractures, crevices and faults always have an intensifying effect, usually over their whole extent. At the crossing places of fractures and faults the effect is particularly strong, and this applies specially to displacements in strata caused by a fracture which lies hidden under thin beds of alluvial boulders, gravels and sand in the bed of a river. Water flowing in fissures underground can of itself cause an increase of seismic disturbance. For instance, in America a method for detecting leaks in gas and water pipes was devised, whereby the peculiar humming caused by gas or water escaping from small holes or fractures is detected by listening with microphones on the surface, after suitable amplification and filtration. In literature there are many reports of dowsers discovering leaks in water pipes and unsound patches in outer walls with such accuracy that the damage could be located with the least expenditure of time and effort.

Differences in the intensity of seismic disturbance can very clearly be detected by listening to the humming of wooden telegraph poles. This humming is not, as is usually assumed, caused by the wire vibrating in the wind and by the vibrations being radiated from the posts amplified in the manner of resonating bodies. On the contrary, by systematic observation one can

easily notice days with a strong wind when almost no humming at telegraph posts is audible, whilst there are completely quiet days when they are humming strongly. Indeed, this always occurs at a sudden change of weather, especially when, in Europe, a deep area of depression is approaching from the West, bringing with it heavy storms on the Atlantic coast. Such storms cause the heavy surf on the west coasts of France or Ireland, which, as already described, produces effects as far reaching as mid-Europe. The increase of seismic disturbance can be observed two or three days before the change of weather. Fortin, with his atmospheric magnetometer, unwittingly measured this increase of seismic disturbances and made it the basis of his short-term weather predictions which were usually extremely reliable.

The Fortin apparatus is in reality a microseismoscope. It contains a horizontal bobbin of iron wire, over which is suspended a horizontal straw as an indicator. The bobbin consists of several thousand windings of soft iron wire weighing several kilograms. With its insulating layers, and the strips of tinfoil used in its construction, it possesses a certain elasticity. In this way it is provided with inertia, and also in its lower part, with an elastic base for the heavy mass, over which a cocoon thread hangs freely from the lid of the case, whilst a blade of straw serves as a pointer to indicate earth tremors. In acting thus it deflects laterally from the centre line of the surface of the casing of the bobbin cylinder to which it has been set parallel, by turning the suspension knot of the thread ; for along this centre line the strongest air current can be perceived when the case and pointer, through the seismic earth disturbance, move relatively to the elastically secured massive bobbin, which latter remains practically at rest. It is necessary only to place the Fortin apparatus on a loud speaker, in order to observe the pronounced deflections of the straw on both sides. Naturally, the result is just as good if a heavy metal cylinder, such as one of iron, is resting on a thick india-rubber base, over which the straw pointer, on a fine silk thread, is suspended from the cover. According to my observations, it is not essential that the heavy mass should have the shape of a bobbin. Perhaps it is necessary in the case of the Schmid water-finder, which contains a bobbin of soft iron wire, whilst as a pointer a magnetised needle is used which is, moreover fixed to the surface of the bobbin. It responds to subterranean aquifers with small irregular movements of a few degrees. There is always a possibility that magnetic variations or electric currents which are caused by flowing water, induce magnetic fields in the bobbin and so cause the deflection of the pointer. The working of the Fortin apparatus as a microseismoscope is consistent with the fact that, as the electrical engineer, E. K. Müller, of Zurich, has shown by prolonged and careful experiments, it also works if it is placed underground in a cellar on a massive concrete pillar. According

to Müller, on one occasion the pointer oscillated for hours before a severe earth- and seaquake occurred. This was a case of a foreshock which preceded the main shock.

In literature we find various accounts illustrating the connection between microseismic and influence bands. I am referring not only to the fact already mentioned—that fissures, faults and fractures, which always give out influence bands, indicate particularly large microseismic disturbances, and also that water flowing underground can give off noises audible on the surface—but primarily to the old method of indicating earth rays, which consists of pouring at the relevant spot, on a smooth surface, a little heap of fine flour or sand, whereon the angle of the slope assumed by the surface of the heap corresponds to the internal friction of the material in question. If the circumference of the heap is marked out on the smooth surface, it will be observed after several hours or days that the heap has spread and become lower, covering a larger area. The same thing happens if the supporting surface is tapped lightly, and this shows that small tremors in the ground are the cause of the behaviour observed.

In dowsing literature a crack in a wall, extending from floor to roof of a house, is very frequently attributed to a strong band of influence. It is often hardly visible, but is recognisable by the absence of plaster or mortar along its course. It is easy to explain these observations also on a microseismic basis associated with fissures and faults. In such cases, not only has the seismic disturbance been amplified, but when slight shocks—even if of short duration—take place, which is fairly often in our country, a relatively large displacement of adjacent rocks occurs in the lines of discontinuity beneath the surface, sufficient to produce the damage to the wall and plaster of the buildings erected over them. I once saw in a garden enclosure at Gnadenwald, near Hall in the Tyrol, that the plaster on all the masonry pillars had almost completely fallen away. These pillars were standing on a strong band of influence, which I detected by magnetic apparatus, whilst on the other pillars the plaster was undamaged. Any experienced dowser will have made similar observations on strong bands of influence.

According to Katz, man possesses a special sense of vibration for the perception of mechanical shocks and vibrations. Other authors are of a different opinion, but agreed that the senses of touch and pressure play a special part. The tactile organs, the so-called Meissner corpuscles, are tiny microscopic bodies closely concentrated in the finger tips and inner surface of the hand. Besides these, hairs also serve for the perception of pressure. Their roots in the skin are wrapped round by a peculiar basket-like nerve plexus which is excited whenever the hair is touched or changes its position. They react to the slightest tugs and

changes of tension of the skin, and they register every movement of a joint, for with them distortions of the skin are undeniably connected. The possibility therefore exists that small tremors in the earth, and the vibrations in the air caused thereby, act directly on the hair and on the receptive organs of the pressure-sense with which they are connected, as also, through the agency of the rod held in tension in the hands, on the above-mentioned Meissner corpuscles on the finger tips ; they also affect the inner surface of the hand and thereby cause reflex muscular contractions and movements in the joints which bring about the reaction of the rod. From this explanation, it is understandable that a rod may be made from any flexible material, provided it is responsive to the smallest mechanical tremors, whether it be a good electric conductor or not. Wood, whalebone, celluloid, typical non-conductors, are as suitable for rods as are wire bows or coils of some conducting material.

It seems to me particularly significant in this connection that the human body itself is continually subject to small mechanical vibrations which are passed on to the surrounding air. The chief source is the heartbeat, which drives the blood through all the blood vessels in rhythmic measure, thereby causing corresponding pulsations in the body's surface. A. Hofmann (Mehlem) has shown in his instructive treatise, *Das Rätsel der Handstrahlen*, that movements of the air caused by pulse beat can easily be demonstrated by suitable and simple apparatus, such as very light paper rotors, up to one metre's distance from the breast, whilst their extent behind, and more so to the side, depending on anatomical conditions, is much smaller. Pulse beats from two people facing each other interfere and, for the time being, the recording of the apparatus is suspended, so that the paper cylinders get slower and slower, and finally come to rest—only to start again, and rotate more quickly, until the opposite waves of pressure come again into exact opposition. Of like significance seems to be the discovery of the Viennese Professor of Physiology, Dr. Rohracher, namely, that apart from the pulse beat and independent of it, the human body surface gives out continually mechanical vibrations ten times faster with a frequency of 7-12 and amplitude of 2-25 thousandths of a millimetre. The frequency is apparently independent of age. Only infants in arms often reach as much as 15 vibrations per second. On the other hand, the amplitude of these vibrations depends on health and activity. For example, in sleep it is only half as large as in a state of wakefulness.

It is remarkable that the frequencies of the pulse beat, as of Rohracher's micromechanical vibration of the human body surface, are of the same order of greatness as the microseismic vibrations, so that there is always a possibility of resonance and

interference. I believe that a consideration on the one hand of the Rohrach vibrations and of the pulse wave, and on the other of the microseismic earth disturbances would afford a remarkably simple and illuminating physical explanation of the movements of the so-called sidereal pendulum, without having to bring the so-called ideomotive movements into the prominence which finds so much favour in some quarters. When we consider that on the one hand we have the adjustable pendulum—the *pendule réglable* of the French—which can be made extremely sensitive by altering the length of the thread to procure resonance of definite frequencies, and on the other hand the microseismic disturbance which favours specific frequencies in accordance with the above-mentioned general and local conditions, we can hardly reject, out of hand, the possibility of proving that geological and geophysical discontinuities can be located byobservations of the pendulum's movements, as the causes in this case will be of a purely physical kind.

It does not need to be expressly stressed that, naturally, all pendulum techniques in which parapsychological abilities, such as clairvoyance, thought reading, cryptaesthesia, etc., play a decisive part lie outside the physico-physiological methods of interpretation which is being attempted. At the most could they be considered in so far as they produce a physico-physiological effect influencing the rhythm and amplitude of the heartbeat.

Seeing that a very reliable lady dowser observed a reach of over eight metres in the personal radiation of a patient suffering from *paralysis agitans* (the so-called palsy), whose body was in a continual state of severe irregular twitching, and that E. K. Müller observed that human radiation could penetrate a wooden door, be conducted by a wire several metres long, fastened to the door at one end and connected to a Fortin apparatus at the other (causing movements of the pointer), it seems to me that the easiest and simplest explanation of all this lies in the vibrations of the body surface and the air vibrations caused thereby. Quite a large number of very reliable and critical dowsers with rod or pendulum agree that the form of energy felt by them can be conducted by metal wire, wooden sticks, ropes and string, through gumboots, thick layers of fern or straw, but may be absorbed ; that it is reflected by flat surfaces of suitable material, diffracted by prisms and lenses of wood and metal, and is refracted by sharp edges. Here, too, an easy explanation rests in the energy of sound, but certainly not on the ground of electric vibrations. As the velocity of propagation of sound in the air is much smaller than in dense substances (330m. against 2,000-5,000m.), total reflection can take place by the incidence at a sufficiently steep angle of a beam of sound on a surface air/material (for example, the ceiling of an air-filled room) and even at angles of 8° to 10°

from the vertical. At all lesser angles of incidence beams will be reflected back from the ceiling into the room where they can cause secondary sound disturbances. The peculiar behaviour of sound radiation just described is in keeping with the fact that the repeated penetration of room spaces filled with air adjoining solid material, for example by ascending into the interior of a house through floor, room and ceiling, can only take place in the form of relatively narrow beams of sound ; and this has been confirmed by numerous observations. It may, therefore, be a question in the case of a narrow beam of earth rays, not merely of hard radioactive radiations, as the French engineer, P. Cody, has shown in an irrefutable manner by physical apparatus, but of sound waves, for instance infrasonic waves issuing from under the surface of the ground.

A series of observations incline one to believe that it is not the air waves themselves which influence the dowser, but the currents, vibrations and especially the eddy movements of electric and magnetic particles in the air which they cause. A hundred years ago Reichenbach coined for them the word " Od." He spoke of the Od of sound as well as of electricity, magnetism, heat and pressure. The recent investigations of Wendler with his light magnetic pendulum have given this conception a certain physical foundation. When he finds the velocity of propagation of Odic energy of about 6.5 metre seconds to be in agreement with the value given by myself and Wimmer as dowsers ten years earlier, this deviation from the known velocity of sound or electric waves can only be explained, in my opinion, by assuming a transfer of wave and eddy movements between electric and magnetic particles in the air ; their reciprocal collisions and the overlapping of their specific rotary and oscillatory energy occurring much less frequently than those of the totality of all the gaseous constituents of the air, which is the determining factor in the propagation of sound waves. Also, the wavelengths of several millimetres found by Wendler must refer to Odic vibrations. Normal sound waves of this length, with a velocity of 330 m.secs. would be in the supersonic region, somewhere between 15,000 and 300,000 Herz, and would therefore be absorbed very quickly both in air and in materials, so that their propagation right up to the top stories in a building would be impossible. With Odic waves, however, having a velocity of 6.5 m.secs. those wavelengths of 1-20 mm., with a frequency of 6500-325 would correspond. They lie in the normal range of hearing, but on account of their peculiar character it is not the organ of hearing, but the organs receptive of pressure and touch at the roots of the hair and in the skin, which are excited.

The foregoing experiences should throw light on the dowsing problem from a hitherto disregarded point of view and lead to its

consideration from a new angle. The problem of the rod, like that of the pendulum, is a complex one, because a variety of forms of physical energy and psychic influences can give rise to the movements of these instruments. I hope to have shown in the foregoing, that besides electric and magnetic changes of field and radioactive emissions, microseismic influences have also to be reckoned with. They can easily account for a whole series of observations for which no satisfactory explanation has been found. Only a comprehensive consideration of the problem from different points of view reveals the full extent of the unsolved problem, and at the same time the numerous possibilities for its investigation. Anyone sufficiently acquainted with the problem refrains from arriving hastily at any definite opinion in either a positive or negative sense, and avoids all simple solutions which eliminate with summary arbitrariness from the rich field of observations everything which cannot at once be reconciled with some preconceived theory. Only the consideration of all reliable observations and caretully arranged experiments,will give us a complete and final solution of the problem in its physical and biological relationship.

THE NATURAL ENERGY PULSATOR

BY MARTIN J. PARKINSON, N.D., PS.D., M.I.S.N.P.

*Continuation**

PART THREE—NATURAL ENERGY REFLEXES

The Natural Energy Entity responds to energy stimuli from the external environment by means of natural energy reflexes. As a generalisation these reflexes of the energy entity are internal/peripheral responses of a pulsatory nature to energy centric needs and external stimuli.

Response is usually of a pulsatory nature involving the whole organism of the energy entity whose energy economy is dependent on a completely uninhibited expression of the Natural Energy reflex responses to the energy stimulus. Pulsatory response is involuntary, spontaneous, unconscious, non-conditioned and of comparatively brief intensity. Conscious, intellectual and negative emotional Natural Energy inhibitors may inhibit full pulsatory abandon which is essential for successful and complete energy discharge after stimulus discharge. Taboos, inhibitions, aggressive feelings, negative emotions, scepticism, prejudice and all forms of energy statis and inverted energy metabolism are sufficient to create an energy atmosphere of an anti-pulsatory character, wherein dead areas of non-energy potential are created which make it impossible for vital spontaneous, uninhibited, pulsatory energy activity to take place. All the Natural Energy reflexes have considerable therapeutic action on the entire organism. Their successful completion makes for a gestalten, wholeness in the energy entity ; their inhibition towards statis and energy blocks resulting in psychosomatic disorders and sociopathological behaviour. Relative to the energy capacity of the entity, full involvement in Natural Energy reflex behaviour is the criterion of optimum energy wholeness, which is synonymous with health, that is maximum vitality and survival potential.

Primary Energy Reflexes

Five primary reflexes motified by an internal/external response pattern are concerned in energy integration and utilisation; other reflexes which are also concerned with bio-energetic metabolism are not here being considered. Reflexes whose function is to excrete matter or foreign substances or discharge liquid or mucus from the body through the nose, mouth, urethra, anus or skin are not at this time significant to energy patterns. The process of sneezing, vomiting and evacuation of waste products of the organism may be significant in terms of hygiene, medical diagnosis or psycho-analysis, but from a strictly energist orientation they are of secondary importance, although of primary importance in

* Previous articles are in *B.S.D.J.* 95, 96 and 97

the biological and survival processes of the living entity. Certain other reflexes which are of vital survival importance and which protect primary sense organs of the organism are likewise not significant enough to the energy economy to be considered here. The reflexes which are being examined are the prayer reflexes, the orgasm reflex, the dowsing reflex and the reflexes of yawning and laughter, which latter will be considered jointly for the purpose of simplicity.

Yawn Reflex

Since they are also more universally habituated to most of humanity they will be considered first. Yawning is in fact a technique of energy charging apart from oxygen intake and the rhythmic movement of the body in the involuntary process is the bio-response of the psychosomatic organism to a decrease in energy level.* Laughter is the opposite polar bio-function, here there is discharge of excess energy due to stimulating tension and over-charging of the energy system. The laughter reflex is the only energy reflex which is unique to man as distinct from other mammals on this planet.

Both aspects of this charge/discharge reflex have vital functions in managing the energy equilibrium of the entire organism.

The yawn reflex becomes evident in premises subjected to lighting by fluorescent tubing where there are free ultra violet radiations and active positive ionisation of the atmosphere. In low-ceilinged buildings this effect may be more apparent and pronounced. Sensitive subjects may experience unidentified uneasiness and tensions. Less sensitive subjects may be subjected to a high saturation of radiation and ionised particles without being aware of the deleterious accumulative effect of this positive ionised atmosphere. Television sets as at present constituted on earth tend to have similar effects and are productive of known noxious radiations.

Prayer Reflex

The prayer reflex which will be examined at some length because it has not been considered energetically previously will be dealt with later. Basically the prayer reflex is an energy centre, cosmo peripherical response, a primary, archaic and primordial method of the individual's energy complex to contact the all-pervading cosmic consciousness.

Orgasm Reflex

With the general acceptance of polarity theories, notably Yin-Yang concepts ; sexual correlationship between oppositely polarised, energy entities were considered against the cosmic background of the all-permeating ocean of Natural Energy, so that the orgasm

* Ouspensky, Bulkley

reflex produces, in the superimposition of two entity energy systems, intimate connection with the pulsation of the whole universe of Natural Energy.

Symbolic cosmic superimposition similar in Natural Energy orientation are polarisation goals,* such as the goal of Tantrism, the union of the cosmic spirit of the Universe, or the goal of Orgonomy, orgastic potency after orgone accumulation discharged through sexual union. The orgasm reflex is thus the superimposition of two Natural Energy bio-systems of unlike polarity; the cosmic contact thus established is the primary goal of the energy accumulating bio-system, seeking pleasurable discharge of Natural Energy concentration by means of energy intercharge and bio-electrical charge/discharge. The orgasm reflex is a biological shock, that constitutes a therapeutic trauma consequent on the potential energy disintegration of the centre of the organism within the peripheral interaction of the highly charged Natural Energy field. This rarely happens, but is always potential in this energy situation and in the external goal in Tantra where Cosmic superimposition symbolically realised through sexual intercourse is constantly practised to this end.

Tantric doctrine is basically a bio-energetic ritual where sexual union (maithuna) no longer symbolic but real becomes a technique to facilitate concentration and awakes Kundalini, the vital Natural Energy which rising through the energy centres on the spine (chakras) reaches the brain chakra : in this supreme centre the mytsic union of Lord Siva (Cosmic Energy)with Kundalini (Shakti) takes place and the human pair is transformed into a divine pair.

Dowsing Reflex

Water is of primary importance as a survival factor for all water-bearing organisms on this planet. Potable drinking water, particularly that from deep springs, has been sought by man from the earliest days of developing consciousness. The energy shock sustained by certain sensitive energy systems over the energy stimulation of an underground stream has been utilised from time immemorial to locate the water necessary to sustain life and primitive culture. This energy shock, afterwards termed the dowsing reflex because of the spontaneous movements of trunk or limb muscular systems to the energy stimulus, was discovered by empirical research to have other applications.

The dowsing reflex is a spontaneous synchronistic phenomenon initiated by an energy response reaction to a radiation stimulus within the total field of emotional flux, induced by a partially sublimated ecstasy rising from the energy core. Only the irrational functions of consciousness, such as sensation, intensified by energy, flows from centre to periphery. The skin, the entire

* Taoist Hsien, Tantrism, Blake, Reich

skin of the body, acts as a magnifying glass to all the energy senses at once and intuition (that is, perception by means of energy integrative significance), enters the final pattern of response, bringing tangible results acceptable to logical examination. Since in final analysis the whole response is spontaneous, synchronistic with an energy flow of effects in an a-casual relationship to habitual pattern of living, it does not lend itself to conscious logical examination and experimental verification by trial and error methodology.

Free will is the entity's Natural Energy in free self-regulative pulsation between its energy centre, its peripheral field and cosmobiological total environment. Will power is that energy directed to selected goals, physically through the activities of the psychosomatic organism;psycho-physicallyby means of an energy stimulus, broadcast from the entity centre and synchronically responding to the resonating reaction from an energy pattern of identical nature. Identity is established by means of correspondence or resonance of the entity pattern within the entity or within the entity energy field which coincides with the mass of similar and particular energy pattern sought. The energy reflex is the exterior physiological indication, that juxtaposition of the energy pattern symbol and the material reality which is ultimately a resonating mass of similar energy structure.

Psychosomatic reflex behaviour is the response to an internal or external resonating stimulus, i.e., an energy feed-back in a stimulus response situation wherein the energy entity centre interprets patterns of perception synchronically.

High development of ability to utilise such talents by the individual entity does not grant any patent of exclusive virtue, nor have communities of such individuals any group copyright. It is neither possible to patent such a talent, nor does copyright law concern itself with incommunicable phenomena, the exact description of which cannot be published.

The dowsing reflex indicating the radiesthetic phenomena has at different times been variously attributed to various energy sources or vehicles.* The proto-sciences, geomancy and divination by means of a tensed rod and unbalanced pendulum reappear as the neo-science Radiesthesia. In all radiesthesia research, the esoteric science of primordial energy, in radionic operation, and in all applications of manifestation of Natural Energy there is the Alchemic reality, in occult frames of reference stemming from the secret science of the Pharaohs and the Magi; also tendencies stem-

* Devil (Gaspard Schott), Animal magnetism (Mesmer), Vital Fluid (Durville), Od (Reichenbach, Ashburner), Electricity (De Vallemont), Spirit Force (Baraduc), Ionisation (Maby and Franklin), Electro-magnetism (Tromp), Radioactivity (Cody), Orgone (Reich), Ultrasomics (Corté), Nerve Stimulus Responses (Macbeth), Psycho-Physical Reflex (Various), Cybernetic Feedback (Béasse), Radar Echo (Dubourg), Meson Field (Thornton, Orton), Cosmic Energy (Various), God (Meier, Capron).

ming from the magic rites of Taoism, Yoga and Tantra, whose origins are in Shamanism and the magic religion of the Neolithic cave dwellers.

Yet there is nothing magical or occult in Radionic instrument operation. Radionic devices are merely instruments. The instrument must be suited to the individual user ; through the media, the energy entity is enabled to use its energy reflexes most advantageously. The total response of the orientated reflex system in radiesthesia divination is regarded with some suspicion, yet as a solvent of neuroses, of indecision, the yes/no answer of radiesthesia divination probably justifies its practice.

The pattern of underground streams and primary springs which were located by the means of energy reflexes were utilised by Neolithic cultures as subterranean cosmic energy reflectors. Stone circles and circular earthworks were used for the concentration of Natural Energy, because structures so formed, being an energy complex of multiple underground streams, functioned as a focal point for the cosmotelluric flow occasionally reinforced by the magnetic meridian. Concentration of high Natural Energy potential within these energy accumulated structures led to uncontrollable callisthenic and orgastic impulses leading to energy discharge via laughter and orgasm. Reflexes have arisen seasonally and according to the lunar cycle since man became erect, and have been able to absorb periodical charges of Natural Energy from the cosmobiological environment or to utilise structural and social arrangements to initiate such energy integration outside natural solar or lunar periods of maximum ends of potential.

Energy Reflex. Basic Orientations

All the above reflexes have three things in common. They are all orientated to energy exchange, are believed to have Natural Energy potential and consequently are the object of cultural taboos.

Yawning and laughter are restricted in their spontaneous manifestations. The prayer is surrounded by religious restrictions and dogmas. The orgasm reflex as a free expression of the sexual manifestation of Natural Energy in its greatest development of polarity is almost universally tabooed. The very existence of the dowsing reflex is the source of greatest embarrassment to would-be scientists among the sciences and arts of mankind.

Since all these reflexes are the consequence of energy economy, not exchange economy, their implementation as an intrinsic life pattern make them available to all who are energy orientated. Since energy implication is the bio-function and goal of the Natural Energy Pulsator and the energist outlook surrounding it, the furtherance of these objects will be the progressive concern of this study.

LETTERS TO THE EDITOR

c/o C.R.E.
B.F.P.O. 55.
October 23rd, 1957.

Dear Sir,—I write to ask the assistance of your Society in verifying or amplifying some of my own experimental results. My object is to relate the dowsing phenomena associated with a linear subterranean object with the pattern calculated from certain simple assumptions.

I am concerned only with the case of a straight pipe, duct or cable lying at a uniform depth in a medium as far as possible homogeneous. I am obliged to discard experiments complicated by the presence of massive objects above or below the surface and within a significant distance of the place of measurement.

The information I require is

(*a*) The type of soil ;

(*b*) The depth and diameter of the linear subterranean object and its nature ;

(*c*) Very approximately its length of straight run ;

(*d*) The intervals between reaction bands measured normally to the centre line ;

(*e*) The time, place and approximate true bearing of the axis of the object.

I should be much obliged if you could publish my request, or parts of it, in your journal as I feel that I cannot proceed further with my analysis without more experimental results from independent observers.

You will appreciate that I am endeavouring to concentrate upon a simple case of dowsing as it appears to be the most amenable to treatment by analytical methods.

Yours faithfully,

H. HANBURY-BROWN,
Major R.E.

138 Harley Street, W.1.
September 30th, 1957.

Dear Colonel Bell,—The announcement concerning uranium in Cornwall published in the *Daily Telegraph* on 23rd September, 1957, is of dowsing interest.

The discoveries made actually owe nothing to dowsing but, at the same time as they were made, a project partly financed by the Research Fund of the British Society of Dowsers was under way in the same area and there has as yet been no disagreement between the conclusions reached by these two independent methods of approach.

Geo-botanical prospecting for uranium in the United States is based on the finding that trees growing on uranium lodes have uranium in them to a concentration of $1\frac{1}{2}$ parts per million or more as compared with trees growing elsewhere which have $\frac{1}{2}$ part per million or less uranium.

The method used to locate uranium bio-physically was to hold one hand at a critical distance from a sample of rock stained by uranium and to use the other hand as a pointer to get a matching between the sensation in the two hands. When the outstretched hand was aimed correctly in the direction where uranium was located a tingling sensation was felt in the hand held over the uranium ore sample.

Bearings were drawn on a map and followed till a site was found where geological survey had already discovered uranium. The biophysical bearings were from distances of miles, whereas the range of conventional instruments is limited to a thousand feet.

This method of biophysical prospecting was applied in the first instance to an area in Devon where the gut cancer death rate was high. In the Tamar watershed the M.O.H. of that area had found that approximately one in four of the deaths was recorded as due to cancer. Bearings were taken that led the prospector to Gunnislake, where the Tamar crossed the mineralised zone between Dartmoor and Bodmin Moor. Uranium had been previously predicted within a half mile radius of the bridge at Gunnislake by means of these biophysical methods and was found to be present in the old mine dump at Gunnislake within the area that was specified before the field was actually surveyed.

Though the existence of this uranium was already known to the geological survey, its discovery by means of its biological effects is of more than academic interest. The lode concerned contains copper and cuts the watersheds of the Tamar and Tavy, where downstream from the lode the cancer death rate is high. Dowsing may well be regarded as a special sensitivity to radiation, and those not so gifted may suffer from radiations of which they are not aware.

Yours sincerely,

MICHAEL ASH,

M.R.C.S., L.R.C.P., M.R.S.H., M.A. Cantab.

Mount Vernon, Sotwell,
Wallingford, Berks.

November 4th, 1957.

Dear Sir,—Dr. Westlake's lecture, "Receptivity, Pattern and Wholeness" in the September issue of your journal, is of great interest to me, especially his references to the Bach Remedies. Having worked with Dr. Bach throughout the years of his researches and his discovery of these Remedies and their uses, I would like to make clear the principle behind them and to remove any impression that the prescribing of the Remedies is difficult or complicated.

Dr. Bach's researches led him to the conclusion that disease in the body is the result of deeper causes than physical ones. That negative qualities, such as fear, impatience, depression, are the symptoms of these deeper causes, no matter at what "level" they occur.

The body being the mirror of the state of mind, reacts accordingly: the state of mind being the mirror, maybe, of some deeper state still, reflects faithfully also the difficulty to be removed.

Such being the compassion of the Spirit of Love for our limitations in a physical world, all things are brought down to the level of our understanding, and by overcoming and correcting the difficulties that are apparent to us, our fears, jealousy, hatred, possessiveness, worry, we can free the channel of communication between our conscious selves and our spiritual selves of any blockage stopping the full flow of the healing force of Life, and so be restored to health and wholeness.

The prescribing of the Bach Remedies is, therefore, simple. They are all prescribed for the negative moods or states of mind, no matter on which level or inner state the basic cause of our distress may be.

Yours sincerely,

NORA WEEKES,
of Dr. Bach's Team.

REVIEWS

LA RADIESTHÉSIE POUR TOUS

August

p. 225. All humbug !—Father Desbuquoit writes of a charming and modest doctor of his acquaintance, who was attempting to save him from the full effects of an attack of Spanish influenza. At one visit, in a moment of plain speaking which was not unusual for him, the doctor exlaimed : " Medicine, you see, dear Father, is just absolute humbug ! " " Medicine, just humbug ! " the priest replied. " And it is you, dear doctor, who dares to speak like that ! " The article appeals to scientists and other learned persons to examine radiesthesia in a systematic manner before dismissing, or condemning, it.

p. 229. How to make a sensitive pendulum.—For the benefit of the beginner, this article describes a simple pendulum which can be made in the home. All that is required is about 30 cm. of black thread and a resistance of 1000 ohms, 3 watts, as can be purchased in radio shops. The pendulum reacts to the colour white and is fully sensitive to the colour range of the whole spectrum, without any particular affinity for one colour. The pendulum reacts to electric and magnetic radiations, and to vertical and horizontal waves (without distinguishing between them). It is also sensitive to the full range of human radiations (mental, nervous, vital, etc.). It is also highly recommended for work on the mental plane and for map-dowsing.

p. 231. Experiments with angle rods.—Following the article entitled " De Nouvelles Baguettes," which appeared in *L.R.P.T.* for June, 1956 (see *B.S.D.J.*, 93, Sept., 1956, p. 189), R. Ferrand began experimenting with rods of this nature. Although proficient with the pendulum, he had previously been unable to make any progress with whalebone forked rods. He constructed two angle rods consisting of wire 3 mm. in diameter, with the longer arm of 40 cm. length and the shorter arm of 10 cm. length. One rod was made of silver and the other of copper. But before bending the rods at right angles, he first determined the polarities of the respective ends of the rods. He bent the rods so that the negative end of the silver rod and positive end of the copper rod each terminated the longer arm of 40 cm. The writer states that the silver rod should be held in the left hand and the copper rod in the right hand. The longer arms of the rods should be held horizontally in front of the dowser about 30 cm. apart. He found these rods extremely sensitive and describes in the article work which he accomplished successfully with them.

p. 236. Astro-radiesthesia.—This article, by " Cobra," follows those appearing in *L.R.P.T.* for June, p. 183, and July, p. 217. It contains examples of diagrams used by the writer in his work on astro-radiesthesia.

p. 241. Normal growth.—W. Herrinckx affirms that there are two physiological factors which are often neglected in matters of health, the first being a natural force producing growth, which mobilises the energies of the individual in order to develop the bony skeleton and surrounding tissues. The second force is one of " expansion," of general development, which may lead to stoutness and obesity. These

factors should be in equilibrium. When they are not, as in an adolescent who is growing too fast or a person who grows too fat, the bad tendency can often be checked, M. Herrinckx, says, by searching for unlikely homoeopathic remedies which would not be selected on classical case-taking. At the mental level the pendulum may help in deciding whether a visit to the country, or some other regimen, would help the patient.

p. 245. Practical method of divinatory radiesthesia.—In this, the eighth article of the series, Messrs. J. Bervroux and H. Rahier emphasise that when an important question has to be decided through radiesthesia, it is necessary to pay special attention to finding the best time to carry out the test. There is always an optimum time or moment for radiesthetic divining at the mental level.

p. 246. Coloured pendulums.—This article suggests a way in which you can decide how to use a box of coloured pendulums in your researches. A set of coloured pendulums should include the colours violet, indigo, blue, green, yellow, orange, red and also black and white —nine pendulums in all. We might add that black is regarded as a colour for the purpose of radiesthetic tests.—*L.R.P.T.*

p. 248. Magnetisation of drawings.—Following previous articles on this subject, "Apollonius" gives further suggestions for work of this character.

p. 249. Making researches more complete.—F. and W. Servranx give examples showing how wrong conclusions may be drawn unless all possible factors are taken into account when making a radiesthetic research. They adumbrate possible situations which should be taken into account when prospecting for a water supply, and give an example of an employee who left his job at the instance of a consulting radiesthetist to take up another job offering higher pay, only to find that his original firm, with whom he was very happy, was at about that time increasing the pay of its employees all round.

p. 253. The personal number and one's luck.—H. Rahier answers questions raised by correspondents following a previous article on this subject.

p. 254. Preparing for the holidays.—This article, by Rudolf Coole, who comes from the Netherlands, tells us how, with the help of his pendulum and instructions which have appeared in *L.R.P.T.*, he prepares for the holidays of himself and family. He goes over his old car with the pendulum, using it rather like a stethoscope, to find any faults that need putting right. The pendulum also decides for him what to take and what not to take, thus avoiding those things which the family insists should be taken, just "in case"! The itinerary to be taken is also decided by pendulum, and the hotels to stay in, which has meant that the family has been more comfortably looked after at reduced cost. In fact, his family seems to have benefited considerably on its holidays from the writer's efforts with the pendulum.

September

p. 257. Aboriculture.—B. Paulet refers in this article to the book *Haie Fruitière Bouché Thomas* in which the author, M. Bouché Thomas, of Angers, describes his special method of fruit growing. The method, by which the stalks are trained so as to make an angle of 30° with the horizontal plane, provides 40 to 50,000 kilos of fruit, good or bad, to

the hectare (say an average of 40,000lb. to the acre). M. Paulet has confirmed the value of M. Bouché Thomas's method by pendulum, and he states also that a grower of olive trees in the South of France has obtained very good results by planting the young trees themselves in the soil at an angle of 30°.

p. 261. Treatment by broadcasting.—The London correspondent of *L.R.P.T.*, signing himself " N.M.," refers to a letter on healing and broadcast treatment addressed to the Editor of the *Journal of the British Society of Dowsers* (*B.S.D.J.*, No. 96, June, 1957, p. 386), and he reports the successful B.S.D. Congress at Moor Park on 5th-7th July.

p. 263. Attributions of works of art and documents through radiesthetic psychometry.—General A. Monne describes a method of identifying the painter of a picture or the writer of a letter which, he considers, avoids errors which often occur by adopting methods more ordinarily employed. To identify the artist who painted a picture, for instance, you hold a pendulum over the picture and you should find that it carries out a series of movements, returning eventually to the original one. They can number up to four. If the series is the same as that produced by the witness of an artist, that artist painted the picture. The advantage claimed is that the tests of picture and artist are independent of each other, which avoids errors which may occur through trying to establish radiesthetic syntonisation between them. It should be possible, according to the article, to decide whether an old master is truly authentic, or whether, for instance, it was done by a pupil of the master.

p. 267. Operational research and radiesthesia.—F. and W. Servranx aver that radiesthesia can be of assistance in settling various problems in science and business by bringing into play through radiesthesia on the mental plane intuition, subconscious knowledge and the more imponderable factors involved.

p. 269. Radiesthesia in time of war and the difficulty of getting the authorities to use it.—It is stated in an introductory note that the author of this article, writing under the pseudonym of " Inyosi," is a pioneer of radiesthesia in Australia and has been a member of the B.S.D. for many years. During the first part of the last war, before the Japanese had come in, an attempt was made to track down the German sea raiders. Various incidents showed the success of these prospections at a distance. After the Japanese entered the war, questions were asked in Parliament as to how they obtained their information and intensive efforts were made to discover secret radio transmitters. It was established that the direction of a transmitter could be accurately ascertained by means of a simple divining rod, with the operator concentrating meanwhile on the information sought. Probable distances were also obtained in the same way. Then the town nearest to where these transmissions were being sent out was found and radiesthetic researches were made from this situation. When sufficient information had been accumulated, the resulting report was sent to more than one authority in the hope that they would follow it up, but they denied interest. It was submitted by the author to the Security Service—its true home—but it was returned with the cryptic statement written across it : " This man is nuts " ! However, it was learnt after the war that the work of the radiesthetists had proved useful to the security forces and that through it an enemy agent

had been caught red-handed in the small hours of the morning sending out messages to a Japanese submarine forty miles away. Altogether twenty-eight transmitters were located over a wide area. At another time the author detected a Japanese vessel and four small submarines. During the night, when the submarines parted company with the vessel, he telephoned a friend to alert the authorities immediately. As a result, three of the submarines were sunk and the fourth broke up on the rocks. " Inyosi " concludes that such facts prove that a mental faculty of direct perception is implicit in such radiesthetic work. It is very selective and located the enemy submarines without difficulty. He used a single angle rod, pivoted in a sleeve, and it was this instrument alone that provided him with all the information he was able to obtain, even where long distances were involved.

p. 273. Electric fittings in the home.—M. Hommel has investigated through radiesthesia the effects of electrical fittings and circuits on human vitality and has come to the conclusion that cellular tissue can be greatly harmed by electro-magnetic fields. At the same time, he has found ways of neutralising these effects, which he will deal with in a subsequent article.

p. 276. Radiesthetic surfaces.—Bogdan N. Djoritch, an engineer living in Belgrade, asserts that the radiation of any substance or form of energy can be reproduced by surfaces determined by a new and simple method, which he describes. Voillaume produced a table of pendulum suspension lengths for different substances and energy sources, and M. Djoritch makes use of the figures given. For instance, the suspension length for zinc is 174.80 mm., and he says that if it is required to draw a triangle having the radiation of zinc, each side must be of this length. Similarly, each side of a square should be 174.80 mm. to produce the radiation of zinc, and he deals with other figures such as circles and hexagons. It may be of interest to give some of the figures in millimetres from Voillaume's table, as follows : Nerves 173.9, sympathetic nerves 158, mental radiations 195, vital radiations 201, electricity 206, static electricity 190.70, radioactivity 169.90, copper 163, tin 210, silver 148.65, iron 196.95, gold 199, and so on. The personal radiation figure is found by suspending the pendulum over a photograph of the subject and adjusting it accordingly.

p. 280. Harmful objects of art.—Henri Robert reports (with attestations) how he diagnosed a bad case of insomnia in a woman as being due to two objects of art 40 cm. high and about 50 cm. in length, consisting of two greyhounds in alabaster of unusual form. He thinks they are of Egyptian origin. They had a permanent place near the lady's bed and had been there six years. She was not getting more than one hour's sleep a night, and working in a watchmaking establishment, her sight had worsened by at least 30 per cent.

p. 281. Radiesthetic drawings, talismans and " waves of form."—" Cobra " discusses various aspects of drawings, as to their beneficial or harmful effects on people, and similar matters.

p. 284. Flying saucers.—J. André recounts how, according to press reports, a flying saucer was discovered recently at Vins-sur-Caramy in the Var, and how it was seen to leave the ground and vanish in the sky. It is stated to have been about 1m. high and 3m. in circumference, resembling a top. A piece of metal, apparently coming from the saucer, was found at the spot where it landed. This metal, the writer asserts,

is not subject to ordinary chemical analysis, but was found to be extremely durable and (he also says) with a texture dominantly like that of gadolinium.

p. 286. Radiesthesia and magnetism.—In this article J. Roucous discusses the discoveries of Mr. G. de la Warr as revealed in *New Worlds beyond the Atom* and the quarterly magazine *Mind and Matter*, published by the Delawarr Laboratories at Oxford.

October

p. 291. When science rediscovers radiesthetic phenomena without knowing it.—An article entitled " En Dernière Heure de la Physique—A Genève-Meyrins les Atomistes observent qu'a l'échelle nucléaire la droite n'égale pas la gauche " by Pierre de Latil, appearing in *Le Figaro Litteraire* for 7th September, 1957, gives seemingly startling news about scientific discoveries made in the U.S.A. and in Geneva concerning the atom which, it is claimed, confirm certain views held by others as a result of radiesthetic tests. In America three Chinese physicists are concerned, Messrs. Lee and Yang and Mme. Wu. From their experiments these three physicists have challenged the principle described as " conservation of parity," as firmly established (it is stated) as the conservation of energy. They state the fact that the atom acts in two ways ; it produces fission and also radiation, but the radiation is polarised in a circular manner. That is to say, instead of following a linear direction in whatever plane, it is emitted in a spiral or corkscrew motion and is endowed with a gyratory effect. It was Mme. Wu who worked on this problem of " parity " during the winter months of 1957 at Columbia University. Another group of four young scientists carried out similar investigations at Cern, a European centre of nuclear research, confirming the circular polarisation of nuclear radiation. It is recalled that Lt.-Colonel Stevelinck has preached the principle of universal polarisation for nearly fifty years. Also the Abbé Mermet defined the spiral aspect of radiations of bodies and advanced his theory, called currently by his followers " *spirales Mermet* " to justify series numbers, as well as certain peculiarities found in the prospection of bodies. It is stated that the spiral aspect of radiation anticipated at Columbia is to-day amply confirmed by the experiments at Cern.

p. 295. Practical method of divinatory radiesthesia.—In this ninth article of the series, J. Bervroux and H. Rahier remark that people go to a radiesthetist not so much to delve into the future as to find out ways in which future events concerning themselves may be modified to their own advantage. In short, the radiesthetist is more of a doctor than a palmist or fortune-teller. The writers go on to discuss how one's destiny can be ameliorated by the use of diagrams and zodiacal signs.

p. 299. The rays of the species of races and families.—" Apollonius " discusses specific rays or radiations pertaining to human beings, animals, vegetables, etc., in accordance with the ideas of C. Voillaume, who was the author of *Essai sur les Rayonnements de l'homme et des Etres vivants*, published in 1934. Voillaume showed how one can tune the pendulum to a specific radiation by adjusting its suspension length. A pendulum tuned to the radiation for humans will react, it is stated, to bones of persons taken from prehistoric tombs

and even to human cinders dating from thousands of years ago (containing perhaps fragments of bones not decomposed by heat). The method can be useful for purposes of identification. The "wave" for the human species is given as 165.50 mm., using a Voillaume pendulum, with very slight variations to distinguish between the white, black, red and yellow races.

p. 301. Suggestions for making researches on plans.—F. and W. Servranx explain how, instead of using a number of witnesses for researches carried out on a plan, these can be replaced by a small bottle of common salt, after it has been impregnated by the operator with the knowledge represented by the witnesses, or (as we might say) with their influences. They also suggest how a plan can be divided into squares so that the operator first finds the sector in which the object he is searching for lies, and is then able to pin-point it. The method, fully described in the article, is claimed to avoid any kind of auto-suggestion.

p. 303. Leaves of castor oil plants and cabbages.—More especially for the benefit of those living in the Colonies, J. M. Leroy describes the remarkable properties of the leaves of the castor oil plant. This is found in the Congo and is also cultivated in Italy, as well as the South of France. The leaves are claimed to have special properties for healing wounds and should be applied directly on the wound. M. Leroy tells of a young negress of about twenty who was brought to him by some of her friends. Her husband had punished her by giving her a violent blow with a heavy stick on the head, which had produced a large wound. The head of the girl was like a large round ball in which neither the eyes nor cheek bones were distinguishable. The writer applied a dressing of castor oil leaves, and after the third day the eyes opened and the appearance of the wound was perfectly healthy. Despite his efforts to get this simple remedy recognised as something really worthwhile, he has been shocked by medical scepticism to it—especially in a country where it is indigenous and costs nothing. Those interested in the properties of the cabbage are advised to read the little book *Les Propriétés Merveilleuses de la Feuille de Chou* by Camille Droz.

p. 305. Influences of drawings, good or bad.—Lt.-Colonel Stevelinck discusses this question with the aid of diagrams, following an article by "Apollonius" appearing last February (see *B.S.D.J.*, XIII, 96, June, 1957, p. 391).

p. 309. Harmful electrical influences.—M. Hommel describes ways in which the harmful effects of electro-magnetic fields and of industrial electricity can be effectively neutralised.

p. 311. Anxiety.—According to W. Herrinckx, people suffering from worry, anxiety, or too much responsibility, can be helped simply by their looking at a small round bottle of yellow-coloured water for ten to fifteen minutes before each meal and before going to bed. The patient is enjoined to make no special effort of any kind when looking at the coloured water. While it is difficult to believe that such action can have any real effect, M. Herrinckx has found in his own experience that it has had a good effect on the mental condition and vitality of patients.

p. 313. Asian influenza.—A correspondent suggests that this epidemic can be effectively treated by Redoxon vitamin C tablets, made by Roche.

BOOKS AND APPLIANCES

Books on *Radiesthesia*, English and foreign, can be obtained from the Markham House Press Ltd., 31 King's Road, London, S.W.3. A catalogue will be supplied on receipt of a stamped addressed envelope.

Copies of *Dowsing* by Pierre Béasse are available at 22s. 6d. ($3.50) and the Schumfell pendulum mentioned therein at £5 ($15) and the descriptive handbook at 6d.—all post free.

The Pendulum, the monthly Review of Radiesthesia: Subscription 26s. at home and $3.80 in North America; *Elementary Radiesthesia*, by the late F. A. Archdale, at 5s.; Pendulums, of clear and black plastic with nylon thread, at 11s. 3d. and 9s. 6d.; and also hollow screw-top pendulums in the same material: also beechwood pendulums at 3s. 9d. are all obtainable from the Markham House Press or from Mrs. M. Archdale, 3 Wayside Road, Southbourne, Bournemouth, Hants.

A new edition of *Radiesthesia and some Associated Phenomena*, by T. T. B. Watson, M.B., B.Ch., is also obtainable from the Markham House Press, or Mrs. Archdale.

* * * *

The many methods used in the practice of our art become less confusing after reading Noel Macbeth's "Courses," which include special ones for water and mineral dowsers, for medical doctors and for agriculturists, as supplied during the past twenty years. Mr. Macbeth is sole agent for Turenne Witnesses (600), various amplifiers and rules, as also an atomic analyser and a blood (pressure, acidity, anaemia) tester. He is agent for subscriptions to "R.P.T." (29s. or $4.25 p.a.). Write to "A-A-P," Stock, Essex.

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The Radiesthesia Research Centre, 28 The Mount, Guildford, will construct radiesthetic apparatus and radionic instruments according to individual requirements.

* * * *

Dr. Benham's Aura Biometer, £6 6s., plus U.K. packing and postage 7s. 7d. Pasquini pendulums, Cameron Aurameters, and many important instruments. Foreign Bank payment services. Lists, 9d. J. J. Williamson, Archers' Court, Hastings.

* * * *

The "Link" divining rod described by Mr. Guy Underwood in his article on Spirals and Stonehenge (*B.S.D.J.* 62, Dec., 1948) can be obtained from him at Belcombe House, Bradford-on-Avon, Wilts., price 8/- post free in U.K., also old type "Oasis" rod, 10/-, in case. Reprints of this article are available at 2/- each. Reprints of 10 Essays on water divining and archaeology, 15/- the set.

* * * *

Messrs. Devine & Co., St. Stephen's Road, Old Ford, London, E.3, supply whalebone Forked Rods 12in. long of the following sections at 5/- each;

Flat	.. ..	7 mm. x 2 mm. or 3 mm.
Circular	..	3 mm. or 4 mm. in diameter
Square	..	3 mm. or 4 mm.

They also supply the following pendulums:

Elephant Ivory, Spherical or Torpedo shape with cavity	..	20/-	each
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Ebony	,, ..	12 6	,,
Composition	,, ..	10/6	,,

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