

CHEMISTRY—GEOLOGY

Canadian Scientist Finds Evidence of "Lost" Elements

From Stone Doorstep and From Bathing Beaches Are Gathered the Signs of Elements No Longer on Earth

IN A CHIP chiseled from the front doorstep of his college; in the sands of Nova Scotia's famed bathing beaches, and in specimens of biotite mica from the Orient, Dr. George H. Henderson, of King's College, Dalhousie University, Halifax, has found evidence of what may prove to be unknown chemical elements no longer existent on the earth's surface.

In an interview at the meeting of the Royal Society of Canada, Dr. Henderson said he had recently discovered at least three new types of pleochroic haloes which have so far been inexplicable as due to already known elements. The time required for their formation, possibly only a few hours or days, although perhaps as great as one hundred years, is much too short to be compatible with geological evidence.

"A pleochroic halo, one of the most striking manifestations of radioactivity," Dr. Henderson said, "might be compared to a photographic negative. It is caused by alpha rays emitted by members of the uranium family of elements as each disintegrates to form the next in the atomic scale. The rays emitted during this disintegration of the uranium crystal act upon mica and certain other minerals in a similar manner to that in which light affects the silver salts of a photographic film."

Measured By Photometer

A dark spot is produced in the mica around the uranium particle. This is surrounded by a series of six concentric dark rings, whose diameter is measured with a halo photometer designed by Dr. Henderson, which allows more accurate determinations than are possible with a microscope.

"The sizes of these halo rings made millions of years ago corresponded exactly with recent laboratory observations on radioactive elements," Dr. Henderson said. "This proves conclusively that the laws of physics as we know them today held good even at the time of formation of the earth's crust. The largest outer ring is no greater in size than a human hair in diameter.

As these haloes disappear at tempera-

tures around 900 degrees Fahrenheit, Dr. Henderson infers that the precambrian rocks from which much of the mica was obtained cannot have reached that degree of heat since they were formed.

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ARCHAEOLOGY

Document Shedding Light On Bible Characters Read

A PRICELESS old document that may shed new light on John the Baptist and the Apostle Paul has been salvaged from the limbo where forgotten manuscripts lie, and translated laboriously.

No exaggeration in that word "laboriously."

A scholar of Hebrew has spent 18 years reading the manuscript, and there are just nine pages of it. While the

World War banged around him, this American worked peacefully in Berlin. Three of his 18 years he did practically nothing else but study those badly written, mutilated sheets of precious parchment. And at that, he was hammering at writing that had already been translated—though he disagreed strongly with many points.

How he has discovered that this extraordinary manuscript has "even greater significance" than Semitic authorities gave it, is told by the patient translator, Rev. Jacob Quiring, formerly professor at Bluffton College in Ohio. In a new volume of scientific studies titled "From the Pyramids to Paul," contributed by various scholars, he announces that the "nine priceless sheets of parchment" reveal a vivid and unforgettable picture of Jews in 172 B.C., trying to keep their faith and standards when Greek paganism swept over Palestine. Historically, this is near the close of Old Testament time.

Written with flaming pen, this tract was intended for circulation among synagogues of faithful Jews. Beware, it warned them, the Syrian tyrant Antiochus and his hireling Jeshua, who are leading the people into pagan wickedness. The writer was one of the loyal Jews who had fled to the region of Damascus.



"CANDLING" OSTRICH EGGS

Soviet Russia, where planned production of all kinds has become almost a national religion, has an "Ostrich Plan," too. In the Ukraine, southern member of the U.S.S.R., the climate permits the practicable raising of ostriches as it does in California and Florida in the United States. Some of the hatching is done in special incubators. The young Soviet workers are "candling" a tray of the huge eggs, to see whether any of them have spoiled. The Plan: first raise enough ostriches to stock all the zoological gardens in U.S.S.R. cities, then start production for the great State farms on the steppes.

"Was John the Baptist familiar with this document, whose stern denunciations of a faithless hierarchy he afterwards repeated?" asks Mr. Quiring.

And did the Bible character Paul win his first Christian converts at Damascus—where he himself was dramatically converted—among the descendants of those Jews who chose exile rather than disloyalty to their ancient faith?

The answers to these questions are not clear yet, says Mr. Quiring. But there is no doubt that the picturesque and important document is background information on the history of these characters.

The nine parchment sheets from which

Mr. Quiring reads this historic text are a medieval copy of the original, vanished work. The pages date from about the tenth century. They are badly spelled, written by two medieval scribes, one a little more careless than the other, and the pages are blurred and mutilated. The very first word is smeared with a greasy thumb print so plain that the police would have no trouble identifying the careless bookman if he were alive today.

With such handicaps, a scholar who reads nine pages in 18 years and recovers an eyewitness' report of a troubled and obscure period of history, is not making such slow progress.

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opinion, are less mercenary than either happily or unhappily married women. They are more likely to lend money. Have less respect for thrift. And are more interested in work for its own sake than for the financial returns.

The divorced woman offers many contrasts to the other groups of women. She has more intellectual interests, more self reliance, assertiveness, and ambition. Her most outstanding trait is a tolerance toward the peculiarities of others. She doesn't object so much to queer, abnormal, or exceptional people. She can even put up with men who chew tobacco, absent-minded people, bolshevists, people with protruding jaws, gruff men and emotional women, and people who talk too slowly.

But she doesn't like teetotalers, clergymen, or cautious people.

The woman who is married but unhappy is a negative sort of person. She is inclined to sociability, but she lacks the sympathy and tact which make for social harmony. She is inclined to be self-centered, irritable and intolerant.

The unhappy wife is the most neurotic, indecisive and unmethodical. She is a conservative, but thinks of herself as a radical.

She lacks the warm sympathy and emotional balance of the happily married woman. And she lacks the rugged individualism, ambition, and efficiency of the divorced.

The unhappily married man likewise has a personality between the happy husband and the divorced man, but he shows somewhat greater resemblance to the latter. He does not have the self-discipline and amiability necessary for success in human relationships, and yet he does not have the aggressive qualities that would enable him to face the unpleasantness of divorce.

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PSYCHOLOGY

Man Who Is "Life of Party" Makes an Unhappy Husband

Happy Wife Is Like Solomon's Ideal But a Divorced Woman Is Less Mercenary, Psychologists Find

GIRLS, if you want to have a happy married life, don't pick as your husband a fellow who is the life of the party, one who is good fun at dances, or who is always ready to take charge of an entertainment.

This advice is gleaned from a study of the personalities of 300 couples made by Dr. Lewis M. Terman and Miss Winifred Bent Johnson, of Stanford University. (*Character and Personality*, June).

One hundred happily married couples were compared by these psychologists with 100 who were unhappily married and 100 who were already divorced.

Conservative people are the ones who are most likely to be happy in marriage, they found.

The happy husband is outstandingly cooperative. He works well with others, is not touchy or grouchy, is not critical of others. But he is not the jolly fellow type of good mixer. He prefers going to see a play to attending a peppy dance, and is quite content with a quiet evening at home.

The happy husband is more kindly than his less happy brethren toward old people, the sick, or those with deformities and personal peculiarities.

But he does not like talkative people.

The happy wife is typically an old-fashioned girl. She exemplifies the kind of feminine virtue familiar in the old-fashioned protected matron and the wom-

an extolled in the Bible by Solomon. (See Proverbs 31:10).

Happily married women are the most sociable of all the groups. They enjoy things more when they are with others. They just love to go on picnics, to amusement parks, and conventions.

They like working with others, they like to talk things over, and don't want to stay at home alone. Yet they are shy, blush more often than the other groups, hesitate more to meet important people.

They are steady, amiable, and optimistic, are less touchy and nervous than their unhappy sisters.

They dislike bolshevists and smokers.

Divorced women, despite popular

HERE IS A HAPPY WIFE

According to Solomon

The heart of her husband doth safely trust in her.

She will do him good and not evil all the days of her life.

She seeketh wool, and flax, and worketh willingly with her hands. She riseth also while it is yet night and giveth meat to her household.

She stretcheth out her hand to the poor; yea, she reacheth forth her hands to the needy.

She openeth her mouth with wisdom; and in her tongue is the law of kindness.

She is like the merchants' ships; she bringeth her food from afar.

According to Modern Psychologists

She is more stable, more conservative, more conventional.

She is careful of others' feelings, insists on having her own way.

She is a methodical and careful worker.

She is sympathetic toward the aged, sick, and crippled, and likes to gather funds for a cause and to contribute to charities.

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She likes to go on excursions, and mingle with the crowds.
