SCIENCE

it is always a good plan to do the easiest things first, partly because it takes less time to get results, but chiefly because the easy things usually throw light on the hard ones. We know that suitable changes in the environment, if made at a suitable time, will cause such changes in the organism that the next generation differs from the first. It is a very difficult problem to determine the intermediate steps; but it is a relatively simple one to determine what change in the second generation is the result of a change in a single factor of the environment. This is a problem which has not been attacked by the biologist in any systematic fashion, and it is a problem which will be greatly simplified by an intelligent application of the theorem of Le Chatelier.

The view of the biologists seems to be that each generation always varies spontaneously from the preceding one to a greater or lesser extent, and that these variations are reproduced more or less completely in the succeeding generation. By the survival of the fittest we eventually get a race which is better adapted to the local conditions than the one from which we started.

The view that I have outlined is that the external conditions tend to produce such changes in the organism that the next generation varies in such a way as to be more adapted to local conditions. By the survival of the fittest and by the continued action of the external conditions, we eventually get a race which is better adapted to the local conditions than the one from which we started.

We reach the same conclusion whichever way we consider the matter. The two views are not mutually exclusive because it is quite possible to consider the variation due to the external conditions as superimposed on the spontaneous variations. If

we are to decide between the two points of view, it must be on other grounds than qualitative results. To me, the phrase "spontaneous variation" seems merely another way of expressing our ignorance. I do not believe in a variation without a If we go back far enough, all cause. variations must be the result of varving external conditions and the real problem is to show what part of any given variation in any given organism is due to the effect of external conditions on the preceding generation and what part is due to the effect of external conditions on still earlier generations. What we study under heredity, as the word is usually used, is the transmitted effect of varying external conditions upon the more or less remote ancestors.

Another objection to the biologist's point of view is that it has not worked out well practically. Being obsessed by the idea of spontaneous variation, he has very rarely taken the trouble to work out carefully the relation between each particular factor of the external conditions and the acquired characteristics of the organism which has become better adapted to its surroundings. If the biologist had had the theorem of Le Chatelier as a guiding hypothesis, he would not have made this mistake and he would often have done better and more careful work.

I have tried to show that the theorem of Le Chatelier is a universal law and that it is consequently of great value in enabling us to correlate old facts and to discover new ones.

WILDER D. BANCROFT CORNELL UNIVERSITY

THE SEVENTEENTH INTERNATIONAL CON-GRESS OF AMERICANISTS

THE second session of the seventeenth International Congress of Americanists was held in the Museo Nacional, Mexico City, Mexico, September 8–14, 1910.¹ In addition to Mexico, the following countries were represented by official delegates present: Austria-Hungary, China, Costa Rica, Cuba, France, Germany, Guatemala, Holland, Italy, Japan, Portugal, Salvador, Spain and the United States of America. There were also in attendance delegates from a number of learned so-

cieties and other institutions from various

parts of the world. The United States government was represented by Professor Franz Boas, Professor Roland B. Dixon, Dr. Ales Hrdlička and Dr. Alfred M. Tozzer. The state of Louisiana was represented by Judge Joseph A. Breaux. Delegates from several American institutions were present: Drs. Pliny E. Goddard and Herbert J. Spinden, American Museum of Natural History; Mr. Stansbury Hagar, Brooklyn Institute of Arts and Sciences; Mr. William Beer, Howard Memorial Library; Mrs. Zelia Nuttall, University of California; Professor George B. Gordon, University of Pennsylvania: and Dr. George Grant Mac-Curdy, Yale University. All these are members of the American Anthropological Association.

To any one interested in American archeology Mexico offers remarkable attractions, not only in the priceless treasures of the Museo Nacional, but also in the number and grandeur of the prehistoric ruins. The author spent five weeks in excursions to various sites, and in study at the museum. His program was no doubt duplicated by many other visiting members. The only official excursions announced by the committee of organization were those to Teotihuacan, Mitla and Xochicalco. The first of these took place during the congress. To it were invited not only the members of the Americanist Congress but also the official delegates to the Mexican centenary, the hosts being the department of foreign affairs as well as that of public instruction and fine arts. It was made the occasion for the opening of the new museum at

 1 A session had already been held in Buenos Aires during the month of May.

the ruins of Teotihuacan. An elaborate dinner was served in the celebrated grotto near the Pyramid of the Sun, at which speeches were made by both the secretary of foreign affairs, Señor Creel, and the secretary of public instruction and fine arts, Señor Sierra. The excursions to Mitla and Xochicalco took place after the congress and were unfortunately marred by some confusion and delay.

Among the centennial attractions that were of special interest to the Americanists was the great historic pageant occurring the day after the congress closed. The first section of the pageant numbering 839 persons, dealt with the epoch of the conquest, particularly the first meeting between Montezuma and Cortes (1519). The sections which followed represented the epochs of Spanish dominion and of independence, respectively.

There were a number of special social functions in honor of the congress, including receptions by the minister of public instruction and fine arts, and by Mrs. Zelia Nuttall at her interesting home, Casa Alvarado, in the historic old suburb of Coyoacan.

The mode of selection of the council emphasized a weakness of the statutes that should be remedied by amendment at the next congress. So far as I have been able to ascertain, no change has been made in the statutes since the close of the first congress.² Article 7 of the statutes is as follows:

The Assembly elects the Members of the Council of which the number is determined by the Committee of Organization.

Each nationality should, at all events, be represented by at least one Member.

This article gives the committee of organization power to limit the number of the council and thus in a measure to determine its personnel. By its very nature the committee of organization is temporary and a local body; while the congress itself is international. Not a single member, for example, of the committee of organization of the immediately preceding congress in Vienna was on the com-

² Congrès intern. des Americanistes, Compte rendu de la première session, t. II., p. 170, Nancy, 1875. mittee of organization of the congress in Mexico. The latter committee decided to limit the council to governmental delegates. In doing so it took into the council diplomats and the judge of a state court; excellent men all of them, but only momentarily interested in the purposes for which the congress exists. At the same time it left out of the council those who have been attending the congresses for years, some of whom had previously sat in its councils, and including professional Americanists attached to and delegated by some of the foremost museums and institutions of learning in America. If the last paragraph of article 7 can be construed in such a manner as to take the control of the congress away from those, but for whom it could not exist, it should be amended at the first opportunity; and the power to limit the number of the council should be transferred from the ephemeral committee of organization, often composed of members who never attended a congress before and who will probably never do so again, to the "Assembly" of members present, which in a measure, at least, is a perpetual body.

During the congress, a committee of delegates from Mexico, France, Germany, Harvard University, the University of Pennsylvania and Columbia University met and agreed upon the foundation of an international school of archeology in the city of Mexico. Other governments and universities may take part in this movement by subscribing to the by-laws (now in process of ratification). The present director of the school is Professor Eduard Seler.

The next congress will be held in London during the month of September, 1912.

The following papers were presented and will be published in the *Compte rendu* of the congress:

"La etnología de las razas indígenas que poblaron las comarcas del sur de Tamaulipas," Alejandro Prieto.

"Contribution to the Anthropology of Peru," Ales Hrdlicka.

"La huella más antigua quizá del hombre en la península de Yucatan; Estudio de la industria

prehistorica de Concepción (Campeche)," Jorge Engerrand.

"Pruebas geológicas de que la parte norte de la peninsula yucateca no ha podido ser habitada por el hombre durante la época cuaternaria," Jorge Engerrand.

"Un caso de cruzamiento entre un Chino y una Yucateca de origen indígena," Jorge Engerrand.

"Quelques observations sur l'art de guerir chez certains tribus nomades du nord du Mexique," Theo. Dupoyet.⁸

"La trepanacion entre nuestros aborígenes," Alberto M. Carreño.

"El rayo de luz y la cronología india," Abraham Castellanos.

"Sobre correcciones del período de Venus en los manuscritos historicos mexicanos," Hermann Beyer.⁸

"Zodiacal Symbolism of the Mexican and Maya Month- and Day-signs," Stansbury Hagar.

"The Celestial Plan of Teotihuacan," Stansbury Hagar.

"El zodiaco de los Incas en comparacion con el de los Aztecas," Arnolfo Krum Heller.

"Los grandes ciclos de la historia maya según el manuscrito del Chumayel," Juan Martinez Hernandez.

"La medicina entre los Indios mexicanos antes de la conquista," Francisco A. Flores.

"Publicaciones nuevas sobre la linguistica americana," Franz Boas.

"A Classification of Maya Verbs," Alfred M. Tozzer.

"Lenguas de la familia nahuatlana; su clasificacíon," Francisco Belmar.

"Dios ¿Que idea tenian de el los antiguos mexicanos?" Cecilo A. Robelo.³

"Idolatrias y supersticiones de los Indios," Vicente de P. Andrade.

"El verdadero concepto de la etnología: La ciencia de gobernar," Andres Molina Enríquez (read by title).

"Algunas lenguas que se hablan en el sur del Estado de Chiapas," Carlos Sapper.³

"The Language of the Tano Indians of New Mexico," John P. Harrington.⁸

"Colon y la lengua castellana y las americanas," Antonio Sánchez Moguel.

^aRead by title, but will be published in the *Compte rendu* of the congress.

"Itinerario de la expedición de Hernán Cortés à Hibueras," Marcos E. Becerra.³

"El testamento de Hernán Cortés," Francisco Fernández del Castillo.

"Une mappe inédite de 1534, avec texte espagnol au verso," Louis Capitan.

"L'œuvre géographique de Humboldt en Mexique." Eugen Oberhummer.

"Les observations géographiques dans les lettres de Cortes," Eugen Oberhummer.⁹

"Resumen de mis estudios de documentos del siglo XV contenidos en el Archivo General y Público de la Nacion," Zelia Nuttall.

"Algunos de los primeros establecimientos de instrucción en el Reino de Nueva Galicia," Francisco Escudero.⁸

"Estudio geografico, historico, etnografico y arqueologico de la Republica de El Salvador," Leopoldo A. Rodríguez.

"Breves notas sobre la historia, la arqueología y la etnogenia del territorio de Tepic," Francisco A. Flores.

"Notes sur le Mexique," Auguste Genin.³

"A Manuscript in Washington," Charles Warren Currier.³

"El Votan," Enrique Santibanez.

"Photographic Notes on the Pueblo Indians of Southwestern United States," Frederick I. Monsen.⁸

"Estudio sobre la teoria del origen oriental de algunas razas americanas," Manuel Cortes.³

"Chronological Sequence of the Sculptures of Copan," Herbert J. Spinden.

"Sobre algunas representaciones del dios Huitzilopochtli," Hermann Beyer.³

"Une figuration de Quetzalcoatl sous forme de serpent emplumé enroulé, provenant de Mexico," Louis Capitan.

"La stylisation de la figure humaine et la représentation des sacrifices humains sur les vases peints preincasiques de Vazca (Pérou)," Louis Capitan.

"Miniature Clay Temples of Ancient Mexico," H. Newell Wardle.

"An Aztec 'Calendar Stone' in the Yale University Museum," George Grant MacCurdy.

"Elements of Kato, an Athabascan Dialect," Pliny E. Goddard.

"Las ruinas de Uxmal," Eduardo Seler.

³Read by title, but will be published in the Compte rendu of the congress.

"The Ruins of Northeastern Guatemala," Alfred M. Tozzer.

"Un dato sobre la evolución del alfabeto entre los azteca y los maya," Jesús Díaz de León.

"La reparacion de las ruinas de Xochicalco," Leopoldo Batres.

"Estudio comparativo de dos documentos historicos," Antonio Garcia Cubas.³

"Some Points in Louisiana Cartography," William Beer.

"Three Centuries of Total Eclipses of the Sun in Mexico: 1850-2150," David Todd.³

"Central and South America—Governmental Cooperation the Key to Great Opportunity," Louis E. Walkins.³

"Résume of the Papers, read at the Sixteenth Congress held at Vienna, on Mexican History, Architecture, Art, etc." Franz Heger.

GEORGE GRANT MACCURDY YALE UNIVERSITY,

NEW HAVEN, CONN.

THE NEW PLAN FOR ADMISSION TO HARVARD UNIVERSITY

ON January 17 the Faculty of Arts and Sciences of Harvard University voted to adopt the plan of admission as given below as an alternative to the system at present in force. The plan, it will be noted, is a compromise between the certificate and examination methods. It is intended to obviate "cramming" for examinations and to improve articulation with secondary schools, especially public high schools.

A. Evidence of the completion of an approved secondary school course.

1. Tabulated statement. A candidate shall present to the committee appointed to administer this plan evidence as to his secondary school work in the form of an official detailed statement showing: (a) The subjects studied by him and the ground covered. (b) The amount of time devoted to each. (c) The quality of his work in each subject.

2. Approved school course. An "approved secondary school course" must (a) extend over four years; (b) concern itself chiefly with languages, science, mathematics and history. No one of these four subjects may be omitted. At least two studies of a candidate's school program must be carried to the stage required by the present advanced examinations of Harvard College, or by