

## BOOK REVIEWS

J. BACOT: *Dictionnaire Tibétain-Sanscrit par Tse-ring Ouang-gyal (Chs riñ dBañ rgyal)*. Buddhica, 2-me série, Vol. II. Reproduction phototypique. Paris, Geuthner, 1930, large 8°, pp. VI, 104 planches doubles.

THE present edition is a phototype of the original manuscript. The dictionary contains about 15,000 words. In many respects it is richer than the Mahāvvyutpatti, and furnishes a number of new meanings. The dictionary is based on the Amarakośa; the Kāmadhenu by Subhūticandra; the Abhidhānamuktāmāla; the Avadānakalpalatā; Daṇḍin's Kāvya-darśa; the Chandoratnākara by Ratnākaraśanti; the commentary on the Pāṇinivyākaraṇa; the commentary on the Sarasvatīvyākaraṇa by Tāranātha, etc. The orthography of Tibetan, and especially of Sanskrit words<sup>1</sup> is at times faulty, and will have to be corrected in a future critical edition.

Professor J. Bacot deserves gratitude for having made this important lexicographical work accessible.

G. DE ROERICH.

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*Bibliographie Bouddhique I* (January 1928—May 1929). Buddhica, Vol. III, Paris, Geuthner, 1930, pp. VIII—64.

*Bibliographie Bouddhique II* (May 1929—May 1930). Buddhica, Vol. V, Paris, Geuthner, 1931, pp. IX—97.

The above two volumes are extremely useful repertoires of recent works on Buddhism and allied subjects compiled by a group of scholars under the direction of Professor Jean Przyluski. Each entry is followed by a short account of its contents, and a list of reviews published on the work. Each volume contains the following sections: General works; Text editions, translations, catalogues, dictionaries, glossaries; Philology and exegesis; History and spread of Buddhism; Legends, Doctrine, Philosophy; Discipline and cult; Art, archaeology, epigraphy; Modern Buddhism.

Part two contains a bibliography of the works by Leon Feer compiled by Marcelle Lalou.

The two volumes form an indispensable instrument of work, and part three will be eagerly anticipated.

G. DE ROERICH.

<sup>1</sup> Some of this corrupt orthography of Sanskrit words, has been sanctified by usage in Tibetan, and in some cases is apparently due to local pronunciations.

## URUSVATI JOURNAL

LOUIS DE BROGLIE: *An Introduction to the Study of Wave Mechanics*. 246 pp. and 14 diagrams. Translated by H. T. Flint, D.Sc., Ph.D., Edition of E. P. Dutton and Co., Inc., New York.

The author is a professor at the Henri Poincaré Institute in Paris. He is the winner of the Nobel Prize for Physics for 1929. The book under review contains an exposition of a new dynamical theory by one of its originators.

There are recognized at present two kinds of motion: that of a particle and wave motion. The famous question about the propagation of light was discussed for centuries. Newton held the view that light is a motion of material particles, but it was until recently almost universally accepted that light is a vibratory movement of ether. With the experiment of Michelson-Morley and of other physicists, and with the appearance of the Theory of Relativity, the old notion of ether was shaken to its foundations and new conceptions of space and dynamics were developed. In order to satisfy the new physical data and the famous Planck's theory of black body radiation, it appeared to be necessary to return to the Newtonian understanding of light propagation, as a stream of particles, accepted in the new theory of protons. The discovery of the photoelectric effect confirmed by the Compton effect, showed that the idea of granular structure of light must be introduced into optics, while the phenomena of diffraction and interference insisted on the conservation of the concept of waves. This light cannot be described as a motion of simple particles, and physics faces a curious dualism of motion. The author has undertaken in this book to show that mathematically both theories can be reconciled. He studies here the phenomena of associated waves, where is no interaction between particles, the phenomena of a train of particles acting one upon another and the movement of a single particle through a generalized space. The author accepts as a well established principle that the square of the amplitude of the wave, i.e. its intensity, must measure the probability of localization of the associated particle for each point of space and at each instant of time. The logical consequence of this postulate is that this principle is necessary to account for the phenomena of interference and diffraction of light, for the maximum of luminous energy is found in the places of the Fresnel wave's greatest intensity. The phenomena of interference and diffraction are not incompatible with the corpuscular theory and the formulæ of the associated and single waves in various media are in agreement with the equations of the moving particle. The author thus establishes a parallelism between the old mechanics and the propagation of the light waves proceeding according to the laws of geometric optics. The corpuscular theory of light receives a new confirmation. But the difficulty arises, when we try to represent physically the motion of a particle. We can imagine a cloud of particles describing all paths, which correspond to one and the same function of Jacobi, in which case the density of the cloud can be measured by the intensity of the associated wave. The trajectory of an imaginary particle here can be

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represented as the wave-train since in the total motion of the particles of the cloud, the position of a single one will coincide at each instant of time with that predicted mathematically. It is more difficult to understand the trajectory of a single particle in cases where the conditions of geometrical optics do not prevail. There are several theories to explain its trajectory, but none of them is entirely satisfactory. Schrödinger thinks that a single particle should be regarded as a 'wave-packet', constituted by a group of waves at neighbouring frequencies, which obeys the laws of geometrical optics. But, according to this theory an electron diffracted by a crystal should be completely dispersed and destroyed and no particle would have a stable existence. This theory is not confirmed by the experiments and cannot be generalized. There is another theory of the pilot-wave. Since the motion of the particle agrees with the propagation of the wave, it may be supposed that the particle is guided by the wave, or, according to a modification of this view by Kennard, instead of speaking of the actual trajectory, we can speak of the trajectory of the 'elements of probability'. But there are several objections to this theory, the main of which is this: the experiments with a mirror cannot agree with the assumption, that the wave is a physical phenomenon, and if the wave is a symbolic representation of a probability, it is difficult to understand the guidance of the particle by the wave. There is also neither conservation of energy, nor of momentum, for the 'probability elements' even in the absence of a field. There are other serious considerations against the pilot-wave theory. The most favoured view at present is that of Bohr and Heisenberg. According to it the wave does not represent a physical phenomenon, but is simply a symbolic representation of our knowledge of the moving particle. No experiment can show exactly that actual position of the particle or its particular velocity. The experiment shows only a probability of the position and the velocity within certain limits. Consequently there is no longer a rigorous determination in Nature, but only laws of probability. This assumption introduces new conceptions of physics, where the wave has non-physical character and the particle cannot be portrayed as a very small object, having position in space, a velocity and a trajectory. In other words, physical phenomena according to Bohr have not clear, definite meanings accepted by the mechanics. Einstein pointed out two possible attitudes: the first consists of retaining the idea of the particle localized at each instance in space. But a natural law expressed by Heisenberg's relations does not permit one to determine exactly the position and state of motion of the particle. The indeterminism of Bohr and Heisenberg must be regarded only as an uncertainty within definite limits. The second attitude accepts the view that the particle associated with an extended wave-train is not actually localized in space and time, but in a certain sense is present throughout the extent of the wave-train, and by some unknown cause it is condensed at a definite point to produce an observable effect. The interpretation of the dualism of waves and particles contains many difficulties, especially

in the question of localization of the particle on the wave and the author thinks that a satisfactory solution will be reached probably by the introduction of some new idea into the present notions of the space-time frame. The work of de Broglie is very interesting because it shows that there is no fundamental difference between the wave propagation and the motion of a particle, but even more so because at the same time he points out the difficulties arising from the actual conception of displacement of a particle. We think, that there is no actual means to observe directly a motion of a body in space, because the observer receives throughout the motion continuously new light waves bombarding his retina and thus he sees in every place practically another body. Then, the body in motion is a cloud of moving particles and it suffers continuous molecular and intra-atomic changes, so that the body is in every new place different from that in the previous place. We may ask, whether a single particle in every instant of its motion remains the very same particle, or is it a newly originated particle very similar to the previous one? The question cannot be answered until a new conception of space and matter will be introduced. Classical physics tacitly accepted the existence of a homogeneous space as a sort of container of matter. The theory of Relativity showed that this is only a particular case in a series of different possible spaces. This theory studied the qualities of space still separating the conception of it from that of matter. The physical motion may be characterized as a certain change in space-time. Therefore, to study the nature of motion we must study the nature of space. The relativity theory states, that the field of force produces certain qualities of the corresponding space. Then, the total energy of a particle is creating a particular space within the particle which is most intimately related to the physical properties of the particle. In every new place it meets a new spacial condition and the very fact of displacement means a certain change of the particle. Therefore, we cannot regard a 'displaced' particle as identical with the previous one, but only as analogous. Its energy being intimately related to the space-value, cannot be separated from space and probably should be regarded as a condensation of the particular space. Thus a moving particle will in fact represent a continuous consecutive generation of new particles along the trajectory not dissimilar to the consecutive raising of particles of a liquid forming a wave. The length of a motion-wave will correspond to the distance between the positions of the two consecutively generated particles and the amplitude—to the intensity, which in this case will be the intensity of condensation of space. It is probably, that this conception of motion which agrees apparently with wave propagation and mechanical movement theories and permits to localize the particle on the definite trajectory will bring some clearness into the question under discussion. It will be then necessary to study space as a medium generating matter with its mathematical conditions of condensation. Space will thus become a real cosmic tension and matter its function. De Broglie has touched in the present book an exceedingly interesting

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point, which will probably lead to an entire reconstruction of our notion of space and dynamics.

C. LOZINA.

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DOROTHEA CHAPLIN: *Some aspects of Hindu Medical Treatment*. London, Luzac & Co., 1930, pp. 71.

This little book is the result of a practical experience of Hindu medical treatment, and verbal information acquired from Dr. S. M. Mitra. Some of the chapters are interesting as for example the chapters on Psychotherapy and Colour-Therapy. The Ayurvedic treatment of nerve disorders merits a thorough investigation, as well as the treatment of asthma and cancer. As in the case of other ailments, the treatment is directed to the patient, and not to the part affected. The study of early symptoms is interesting.

It is our firm belief, that the ancient Hindu medicine, as well as its sister-branch the medical science of Tibet, have still something to teach us.

G. DE ROERICH.

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FRANKLIN EDGERTON: *The Elephant-Lore of the Hindus. The Elephant-Sport (Mātaṅga-Līlā) of Nilakaṅṭha*. Translated from the original Sanskrit with introduction, notes, and glossary. New Haven, Yale University Press, 1931, pp. XX—129.

In this volume Professor Edgerton has given us a translation of the *Mātaṅga-Līlā*, an interesting text on the ancient Hindu science of 'elephantology' or *gaja-śāstra*. The author of the work is Nilakaṅṭha, but nothing is known about him or about the date of the composition of the book. Professor Keith (*History of Sanskrit Literature*, p. 465) regards it as more modern than the *Hastyāyurveda*, another treatise on elephantology, dealing with the medical treatment of elephants. Professor Edgerton considers this improbable, since there is no evidence to prove it. According to him, the *Mātaṅga-Līlā* is a work based on an ancient tradition, whose antiquity it is almost impossible to ascertain. In preparing his translation, Professor Edgerton consulted another work on the elephant-science, unfortunately incomplete and very corrupt, now preserved in the Tanjore Palace Library. The Introduction to the present translation is full of learned comments on the position of the elephant-lore in Indian literature, and the author's analysis of the theoretical and practical elements of the 'science' will prove invaluable to students of Indian folk-lore, and shows that our modern knowledge of the animal is far from being complete. The highly elaborate character of the 'science' is explained by the multifarious rôle played by the elephant in Hindu civilization. Fragments of this elephant-science have even penetrated into countries, which had no practical experience of elephants, but had adopted some elements of the elephant-lore together with

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other Indian sciences, thus creating a highly artificial culture, such as Tibet, for example. Professor Edgerton's translation is an example of scholarly rendering of a highly condensed and technical text. The Glossary added to the volume contains over 130 words of the special vocabulary, and not defined in the senses here found in any existing dictionaries.

The eminent author is to be congratulated for having undertaken this valuable study of this important branch of ancient Hindu knowledge.

G. DE ROERICH.

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*Freski Dmitrovskogo Sobora vo Vladimire.* Berlin, 'Petropolis', pp. 15, with LXVIII plates.

The book represents a short monograph on the frescoes of the famous Dmitrovski Cathedral in Vladimir. The Cathedral dates from the 12th century, and represents an important monument of art of the Suzdal period. The frescoes were first discovered in 1843 during a restoration of the Cathedral, and were studied by Professor Solntsev and Count Stroganov. In 1918, Mr. Igor Grabar made another discovery of important fragments of frescoes in the Cathedral. According to him the frescoes must belong to an art with a rich tradition behind it, and for whose origin we should search in Byzantium and the other great countries of the Near East.

The book contains numerous well-executed plates.

G. DE ROERICH.

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DWIGHT GODDARD: *The Buddha's Golden Path.* A Manual of Practical Buddhism based on the teachings and practices of the Zen sect, but interpreted and adapted to meet modern conditions. London, Luzac & Co., 1931, pp. 214.

During his residence in Japan the author has studied Buddhism in Zen monasteries, and the present book contains an exposition of the main tenets of the doctrine. The book is divided into three parts. In some cases the author has somewhat westernized the dogmas of the teaching. Some of the chapters are written with a great deal of earnestness and contain a good exposition of the subject, for example the chapter on Right Concentration.

The book will be found useful by many interested in the doctrine and its modern interpretation.

G. DE ROERICH.

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SWĀMI JAGADISWARANANDA: *Buddhism and Vedanta.* The Calcutta Review, Nov.-Dec., 1932, pp. 161-176.

With each new advance of our knowledge of Buddhism, it seems more difficult to separate it from the ancient doctrine of the Upanishads. Far from being atheistic, Buddhism teaches the existence of a transcendental substratum

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that underlies everything, that the basic property of the world is 'becoming,' and that the conditioned ever-evolving change creates the phases of things in this world. The germs of all these thoughts are found in the Upanishads, but their treatment in Buddhism is more systematic, more rigorous. In his article the author quotes the latest works by Rhys Davids, Rokotoff, and Radhakrishnan. Speaking of the notion of the Nirvāṇa, the author very appropriately quotes Saṃyutta Nikāya, III, 109.

We must be thankful to the learned Swāmi for having given us this inspiring essay on a fascinating subject.

G. DE ROERICH.

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MARCELLE LALOU: *Iconographie des étoffes peintes (paṭa) dans le Mañjuśrīmūlakalpa*. Buddhica, VI, Paris, Geuthner, 1930, pp. 116.

In this interesting study, the author describes the rite of paṭa, or the preparation of an image painted on cloth according to established rules (Tibetan: ras-ṅhog). The present study is based on the Mañjuśrīmūlakalpa. The passages describing the rite of paṭa are translated by the author, and the corresponding Tibetan text is added in transcription. The author shows in her Introduction (p. 4) that the term paṭa means an image painted on cloth according to prescribed rules, but whose composition does not include diagrams. In this lies its principal difference from the so-called maṇḍalas or spheres of influence, which are usually drawn on a geometrical plan. The composition of such painted images is governed by rigid iconographical rules. Some of the iconographical aspects described in the Mañjuśrīmūlakalpa are of great interest, as they no doubt represent an early tradition. For example: Maitreya represented as a brahmācārin, wearing the kāṣāya, and the skin of a black antelope, with a rosary attached to his left shoulder, and holding the alms bowl and the mendicant's staff (Cf. Mañjuśrīmūlakalpa, Ch. IV).

In Ch. V, the author discusses the parallels that exist between the bodhisattva Mañjuśrī of the Mahāyāna, and the gandharva Pañcaśikha of the Hīnāyāna.

The present study forms a valuable contribution to the literature on Northern Buddhist iconography.

G. DE ROERICH.

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OWEN LATTIMORE: *High Tartary*. Pp. XIV, 370, illustrated. Little, Brown & Co., Boston, 1930.

The first part of the journey was described by the author in 'The Desert Road to Turkestan', which was reviewed in Volume I of the present Journal. The present account starts with Ku-ch'eng-tze where the author dismissed his caravan which brought him across Inner Mongolia from Kuei-hua ch'eng. After a short stay in Ku-ch'eng-tze the author journeyed to Urumchi, the provincial capital of Hsin-chiang, and then to Chuguchak on the Siberian border to meet

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his wife, who was travelling by the Siberian railway. From Chuguchak the party returned to Urumchi, and after a short visit to Turfān proceeded via Urumchi to Kulja and the Ili highlands. A visit was paid to the nomad pasture grounds in the upper Tekes valley and the Kōk-su. Crossing the Muzart Pass, the party reached Aksu, and then through Maralbāshi and Kāshgar to Yārkañd. From Yārkañd the party travelled to India by the Karakorum trade route (Sanju Pass, Suget, Karakorum, Sasser, Karaul dawān and Khardong). The author's principal interest lies in the people and the economic conditions of the country he traversed. His fluent knowledge of Chinese permitted him to make himself thoroughly familiar with the Chinese administrative methods in the Province, and his observations of the present economic state of the country are interesting. The author interrupts his narrative to give us several good descriptions of nomad tribes he met on his way. A short description is given of the curious Erh-hun-tze, a cross breed between Mongols, Tāghliks and Chinese, who inhabit the mountain tracts between Ku-ch'eng-tze and Barkōl. A whole chapter is devoted to the T'ung-kan or Chinese Mohammedan population of the Province. The origin of the T'ung-kan is still a much debated question. They are a mixed race of Sino-Iranian and Sino-Turkish parentage. It is possible that the Khorezmian colonists, who were carried away to the 'eastern lands' during the Mongol conquest of Turkistān were the ancestors of the present T'ung-kan. The modern T'ung-kan are mostly Shaf'ites—a sect which exercised a strong influence in Khorezmia in the 13th century (see: Barthold, *Turkestan during the Mongol Invasion*, p. 436, n.). Some authors consider them to be somatologically Mongolized Turks. The author gives a good account of the Kirghiz and Qazāq tribes in Jungaria and the T'ien Shan. On the contrary the Mongol tribes of the region attracted but scant attention. An interesting chapter is devoted to horse-breeding problems in the Province, and I concur with the author's opinion that the Barkōl horse preserves traits of the old Hun horse. The Karashahr pony seems to be a descendant of the famous T'ang horse immortalized in the clay figurines that are such a prominent feature of our Museum collections. The town name Dorbujing (p. 63 and elsewhere) should read Dōrbūljing.

The book is well written and faithfully reproduces the jostle of a caravan route in Inner Asia. A map showing the route of the Expedition across Jungaria and Chinese Turkistān is added to the volume.

GEORGES DE ROEBICH.

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OWEN LATTIMORE: *Manchuria. Cradle of Conflict*. New York, The Macmillan Company, 1932, pp. XVI—311, with four maps.

Mr. Lattimore's latest book on Manchuria is a worthy successor to his two previous volumes dealing with Central Asia. The author's vast experience on



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the Sino-Mongolian border, Inner Mongolia, Chinese Turkistān, and his good knowledge of the Chinese language and national character, enabled him to interpret the various forces at work in the Far East in relation to their historical background and geographical environment. The book is founded on the experience and information gained during a nine months' journey through Manchuria in the course of 1929-30. The journey was carried out under the auspices of the Social Science Research Council, and the American Geographical Society. The author's discussion of the physical and economic geography of Manchuria serves as an introduction to the study of the tribal movements along the north-eastern frontiers of China, the inter-relation of the various national groups within the 'reservoir' region of the Chinese borderland, and their reaction to the growing process of 'westernization'. The important factor of Chinese colonization of the modern period, its overwhelming character, and the determined attempt to plant Chinese culture among the alien population, north of the Great Wall, are discussed with a good knowledge of facts, and will be read with interest by all students of the tribal movements on the Chinese border. The author's statement that 'it should, however, be a prime object of future research in Mongolia and Manchuria (and Chinese Turkistān as well) to determine as clearly as possible how far the spread of Chinese cultural elements is to be regarded as an assertive and positive expression of Chinese advance, and how far as "loot" brought back by the barbarians themselves' (p. 40)—presents a new approach of the problem of inter-tribal cultural relations within the Central Asiatic region, and the dominating rôle played by the northern nomads in the history of China proper.

The book is written in a clear style, and is perhaps the best documented work on the subject, among the many books on the Far East published in connection with the recent events in Manchuria.

G. DE ROERICH.

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LEONARD A. LYALL: *Mencius*. London, Longmans, Green & Co., 1932, pp. XXVIII—277.

The large work by Mencius written in the form of advices to Rulers, represents a systematic exposition of the teachings of Confucius. Chu-Hsi, the great thinker of the Sung period, was the first to recognize the value of this outstanding work of Chinese antiquity. In propagating the glories of Confucian doctrine, Mencius here and there introduced new notions, and his ethical basis of the doctrine of the State, is at times tinted with Taoism.

Mr. Lyall has given us a good English version, which supersedes that of Legge. The volume is a worthy addition to the already large number of works on the great Chinese Master.

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N. D. MIRONOV: *Nyāyapraveśa I*. Sanskrit Text. Edited and reconstructed. Ts'ung Pao, Vol. XXVIII, 1931, pp. 1-24.

This work by the distinguished Indologist contains the reconstruction of the original Sanskrit text of the *Nyāyapraveśa*, the famous treatise by Dignāga (c. 450 A.D.). While working in 1910 on a copy of the *Nyāyapraveśaṭīkā* by Haribhadra, Professor Mironov observed that the initial śloka of the text commented upon by Haribhadra coincided with the initial verse of the Tibetan version in the *bsTan-'gyur*, that the commentary by Haribhadra represented a scholium on the *Nyāyapraveśa*, and that one of the manuscripts, at Professor Mironov's disposal [A.M.S. Deccan Library (Poona), No. 738] contained about one-fifth of the original text (*mūla*). This important discovery led to the reconstruction of the lost Sanskrit original of the *Nyāyapraveśa*, which up to now was known only in Chinese and Tibetan translations. The Tibetan translation of the *Nyāyapraveśa* was made in the 12th century A.D. by the Kashmirian Paṇḍita Sarvajñaśrī-rakṣita, assisted by Grags-pa rgyal-mtshan-dpal-bzañ (Kīrtidhvaśrībhadra), and ascribed the work to Dignāga (Cordier, Catalogue du Fonds Tibétain, Vol. III, p. 435, No. 7). The Chinese Tripiṭaka contains a *Nyāyapraveśatarka-śāstra*, attributed to Śāṅkarasvāmin, a pupil of Dignāga, and translated in 647 A.D. by Hsüan-tsang (Nanjio' Catalogue, No. 1216). The Chinese version seems to agree with the *Nyāyapraveśa-nāma-pramāṇa-śāstra* contained in the *bsTan-'gyur* (Cordier, p. 435, No. 8) said to have been translated from Sanskrit into Chinese by Hsüan-tsang, and from Chinese into Tibetan by the Kalyāṇamitra sTon-gzön, and a Chinese translator. The Tibetan translation attributes this last work likewise to Dignāga. Recently a controversy took place over the authorship of the *Nyāyapraveśa*, and some scholars were inclined to deny Dignāga's authorship (Randle, Tubiansky), while others (Keith, Bhattacharya) seemed ready to accept arguments in favor of his authorship. In his Introduction to the reconstructed text, Professor Mironov discusses the question of authorship basing himself on internal evidence from the text and Haribhadra's commentary, and reaches the conclusion that 'so far as Haribhadra is concerned : for him the *Nyāyapraveśa* is a work of Dignāga'. Professor Mironov's discussion of the question settles the matter of the authorship of the text commented upon by Haribhadra.

The study of the original text of the *Nyāyapraveśa*, and some remarks in the text which no doubt represent old glosses, show that Haribhadra commented upon a revised text of the *Nyāyapraveśa*. Professor Mironov expresses the opinion that the early editor (*vārtikakṛt*) of the original text by Dignāga might have been Śāṅkarasvāmin (c. 500 A.D.), who is said to have been the author of the *Nyāyapraveśa*, translated into Chinese by Hsüan-tsang.

The reconstruction of the text is carried out in the usual scholarly manner, characteristic of the works of the distinguished Russian Indologist.

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MURIEL WHELDALE ONSLOW: *Practical Plant Biochemistry*. Cambridge at the University Press. Third edition, 1929.

This well-known text, going now through its third edition, is primarily intended for students of Botany. 'Such a student's knowledge of plant products is usually obtained, on the one hand from Plant Physiology, on the other hand, from Organic Chemistry; between these two standpoints there is a gap....' The book undertakes to fill in this need and does so very adequately.

Certain minor points seem to the reviewer rather doubtful, such as on p. 21 the statement that the products of the hydrolysis of erepsin are polypeptides and amini-acids. It would seem better not to mention the polypeptides.

It is also hoped that at some future date the information now found in the appendix should form an integral part of the text and that some more recent work should find its way into the book.

A trace of physical chemistry of purely descriptive type might be found stimulating. It is badly needed in the chapter dealing with proteins and amino-acids.

The value of the book lies in an extremely good selection of the material. This alone makes the work outstanding and an extremely valuable text for any student of practical plant biochemistry.

V. A. PERTZOFF.

WILLIAM BERRYMAN SCOTT: *An introduction to Geology*. New York, The Macmillan Company, 1932, Vol. I, pp. XIII—604; Vol. II, pp. 485.

This is the third entirely revised edition of the well-known text-book. The first volume deals with Physical Geology, the second with Historical Geology. The present edition is considerably augmented. The treatment of the subject is thorough and well documented. The work having been written for American readers, most of the illustrative material is drawn from the geology of North and South America. The geology of the peripheral regions of the Asiatic continent is discussed in its main outlines, and reference is made to the physiography and stratigraphy of the regions of Inner Asia. The problem of the Quaternary glaciation in Central Asia has been the subject of a systematic exploration by Dr. Erik Norin, of the Sino-Swedish Expedition, whose researches supplement those of Huntington and others.

The volumes are well produced and contain some excellent illustrations.

G. DE ROERICH.

JOHN SHRYOCK: *The Temples of Anking and their cults*. A study of modern Chinese Religion. Paris, Geuthner, 1931, pp. 206.

The author has given us an interesting description of the temples and religious life at Anking, the capital of the Anhui province in Central China.

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The author groups the numerous temples of Anking in six classes:  
1. Ancestral temples; 2. Temples in Honor of Famous Men; 3. State Temples;  
4. Buddhist Temples; 5. Taoist Temples; 6. Individual Cults.

To Dr. Shryock's remarks about the Bodhisattva Kṣitigarbha (p. 80), we may add that the cult of this bodhisattva, as Lord of the Six Ways and as the Lord of Hell, has been very popular in Central Asian Buddhism, and it is very likely that the cult of this bodhisattva has been created in that region. We possess numerous images of the bodhisattva and his parivāra from Tun-huang and Eastern Turkistān. In India, although known since the fourth century, his cult never became popular, and iconographical documents mention him as a deity in the retinue of Lokanātha.

We must be grateful to the author for having given us an account of this colourful religious life, in which Buddhist, Confucian, and Taoist elements blend together to form the modern Chinese syncretism, which often leads towards religious indifference, and a purely ritualistic understanding of religion.

G. DE ROERICH.

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GEORGE SOULIE DE MORANT: *A History of Chinese Art from ancient times to the present day.* New York, Jonathan Cape and Harrison Smith, 1931, pp. 296, illustrated.

The author has attempted to give a short history of Chinese graphic and plastic arts in 279 pages. From necessity the author's treatment of the various periods is brief, and merely gives an outline of the styles of each period. Some of the author's statements could be challenged, a few examples will suffice.

P. 75. The identification of the Yüeh-chih with the Getae has been abandoned.

P. 75. The tribal name Wu-sun has nothing to do with the Chinese name for Russia. The Wu-sun were a blond and blue-eyed tribe inhabiting the Ili region in the 2nd century B.C. Their origin is still a much debated question. Prof. Jarl Charpentier thinks them to be identical with the Asioi or Asiani of the Classical authors, the ancestors of the Alans (Charpentier: *Die ethnographische Stellung der Tocharer*, ZDMG, Vol. 71, pp. 347 ff.). According to Marquart the Wu-sun were akin to the Western T'u-chüeh (Marquart: *Ueber das Volkstum der Komanen*, p. 69).

Kien-ku (Chien-ku) represents the transcription of the tribal name Kirghiz, and has nothing to do with Circassians!

P. 123. The fourth century kingdom of Ts'in in Shên-hsi was founded by a people of Mongol origin.

P. 142. It is impossible to speak of Tibetans using the sexagenary cycle in the 4th century A.D. The first year of the Tibetan sexagenary cycle began in 1027 A.D., and all sources tend to show that it was introduced into Tibet about that date from Central Asia. The common name for the cycle in Tibet

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is Hor-zla, which means 'Hor calendar', Hor being the ethnic name for Central Asiatic tribes of Turkish origin.

P. 169. It is now generally admitted that the Hsiung-nu were of Turkish origin.

Notwithstanding its brevity, the book will be found useful by those eager to obtain a rapid survey of China's brilliant art. A short bibliography of Chinese works on art is added to the volume. The book is amply illustrated.

G. DE ROERICH.

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## BOOKS RECEIVED

(to be reviewed in a later issue)

BROUGHTON: *The Vision of Kwannon Sama*. London, Luzac and Co., 1929, pp. 154.

DAWSON: *The Ethical Religion of Zoroaster*. New York, The Macmillan Company, 1931, pp. XIX—271.

GRIMM: *La Sagesse du Bouddha*. Paris, Geuthner, 1931, pp. 125.

DE MARATRAY: *Le Dhammapada*. Paris, Geuthner, 1931, pp. 95.

PELLIOT: *Le Premier Voyage de l'Amphitrite*. Paris, Geuthner, 1930, pp. 79.