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VOLUME X (2009)

Numéros 1 & 2

SOMMAIRE / SUMMARY	5	
CONSPECTVS SIGLORVM	7	
AVANT-PROPOS	11	
<i>IN MEMORIAM</i> ARION ROȘU (1924-2007)	13	
E. Ciurtin, <i>Institut d'Histoire des Religions, Académie Roumaine, Bucarest</i>		
Ionuț Daniel BĂNCILĂ		
<i>Seminär für Kirchengeschichte, Humboldt-Universität, Berlin</i>		
MANICHAEAN ENTOMOLOGY AND SPONTANEOUS GENERATION	21	
Anna CAIOZZO		
<i>Université Paris Diderot</i>		
REMARQUES SUR LA STRUCTURE DES CIEUX DANS LE <i>MI'RÂJ NÂMEH</i> DE LA B.N.F. (<i>MS. SUP. TURC 190</i>)	41	
E. CIURTIN		
<i>Institut d'Histoire des Religions, Académie Roumaine, Bucarest</i>		
THE BUDDHA'S EARTHQUAKES [I]. ON WATER: EARTHQUAKES AND SEAQUAKES IN BUDDHIST COSMOLOGY AND MEDITATION, WITH AN APPENDIX ON BUDDHIST ART	59	
Thomas J. ZUMBROICH, Analyn SALVADOR-AMORES		
<i>Austin, TX / Department of Social Anthropology, University of the Philippines, Baguio</i>		
"WHEN BLACK TEETH WERE BEAUTIFUL". THE HISTORY AND ETHNOGRAPHY OF DENTAL MODIFICATIONS IN LUZON, PHILIPPINES		125

Daniela DUMBRAVĂ

Istituto Studi Umanistici, Università di Firenze

**NICOLAE MILESCU IN ASIA SETTENTRIONALE (1675).
PRELIMINARI ALLA SUA MISSIONE DIPLOMATICA
PRESSO LA CORTE IMPERIALE DEI QING**

167

MISCELLANEA

Ionuț Daniel BĂNCILĂ

Seminar für Kirchengeschichte, Humboldt Universität, Berlin

CHRISTIAN SOGDIAN LITERATURE – AN OVERVIEW

233

Andrei OIȘTEANU

Institute for the History of Religions, Romanian Academy, Bucharest

**NARCOTICS AND HALUCINOGENES: SCHOLARS
FROM THE ROMANIAN TERRITORIES TRAVELLING TO THE EAST
(MILESCU, CANTEMIR, HONIGBERGER, ELIADE)**

263

Brief notes / Notices

Joseph O'LEARY

Sophia University, Tokyo

EMPTINESS AND COMPASSION

Review essay on Ludovic VIÉVARD, *Vacuité (śūnyatā) et compassion (karuṇā) dans le bouddhisme Madhyamaka*, Publications de l'Institut de Civilisation Indienne fasc. 70, Paris, De Boccard, 2002.

287

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**JOHAN G. SPARWENFELD E NICOLAE MILESCU (MOSCA, 1684).
RAPPORTI DIPLOMATICI, SCAMBI D'INFORMAZIONE
E CONVERGENZA DELLE FONTI**

J. G. Sparwenfeld's Diary of a Journey to Russia 1684-87. Edited, translated, and with commentary by Ulla BIRGEGÅRD, Kungl. Viiterhets Historie och Antikvitets Akademien, Stockholm, 2002.

297

CONSPECTVS SIGLORVM

<i>AA</i>	<i>Arts Asiatiques</i> , Paris.
<i>AAR</i>	American Academy of Religion.
<i>ABORI</i>	<i>Annals of the Bhandarkar Oriental Research Institute</i> , Poona.
<i>AcAs</i>	<i>Acta Asiatica. Bulletin of the Institute of Eastern Culture</i> , Tokyo.
<i>ACF</i>	<i>Annuaire du Collège de France</i> , Paris.
<i>(A)EPHE</i>	<i>Annuaire de l'École Pratique des Hautes Études</i> , Section des Sciences Religieuses, Sorbonne, Paris.
<i>AfO</i>	<i>Archiv für Orientforschung</i> , Wien.
<i>AION</i>	<i>Annali dell'Istituto Universitario Orientale</i> , Napoli.
<i>AKM</i>	<i>Abhandlungen für die Kunde des Morgenlandes</i> , Leipzig.
<i>AM</i>	<i>Asia Major</i> , Leiden.
<i>Anthropos</i>	<i>Anthropos</i> , Sankt Augustin.
<i>AO</i>	<i>Acta Orientalia</i> , København.
<i>AOr</i>	<i>Ars Orientalis</i> , Michigan.
<i>AOH</i>	<i>Acta Orientalia Academiae Scientiarum Hungariae</i> , Budapesta.
<i>Archaeus</i>	<i>Archaeus. Études d'Histoire des Religions / Studies in the History of Religions</i> , Association Archaeus. RAHR & IHR, București.
<i>ARG</i>	<i>Archiv für Religionsgeschichte</i> , Berlin.
<i>ARIRIAB</i>	<i>Annual Report of the International Research Institute for Advanced Buddhology</i> , Soka University, Tokyo.
<i>ArOr</i>	<i>Archiv Orientální. Quarterly Journal of African and Asian Studies</i> , Praha.
<i>ArtAs</i>	<i>Artibus Asiae</i> , Ascona.
<i>ARW</i>	<i>Archiv für Religionswissenschaft</i> , Stuttgart [1897-1941/1942].
<i>AS/ÉA</i>	<i>Asiatische Studien / Études Asiatiques</i> , Lausanne.
<i>ASSR</i>	<i>Archives de sciences sociales des religions</i> , Paris.
<i>BEFEO</i>	<i>Bulletin de l'EFEO</i> , Paris.
<i>BEI</i>	<i>Bulletin d'Études Indiennes</i> , Association française pour les études indiennes, Paris.
<i>BEO</i>	<i>Bulletin d'Études Orientales</i> , Beyrouth.
<i>BIFAO</i>	<i>Bulletin de l'Institut français d'Études Orientales</i> , Cairo.
<i>BIS</i>	<i>Berliner Indologische Studien</i> , Berlin.
<i>BO</i>	<i>Bibliotheca Orientalis</i> , Louvain.
<i>BSO[A]S</i>	<i>Bulletin of the School of Oriental [and African] Studies</i> , London.
<i>BSR</i>	<i>Buddhist Studies Review</i> , London.
<i>CAJ</i>	<i>Central Asiatic Journal</i> , Wiesbaden.

<i>CEA</i>	<i>Cahiers d'Extrême-Asie</i> , EFEO, Kyōto.
<i>CPD</i>	<i>Critical Pali Dictionary</i> , København.
<i>CSSH</i>	<i>Comparative Studies in Society and History</i> , Cambridge.
<i>EASR</i>	<i>European Association for the Study of Religions</i> , The Hague.
<i>EI</i>	<i>Enzyklopaedie der Islam</i> , Leiden.
<i>EP</i>	<i>The Encyclopedia of Islam</i> , new edition, Leiden.
<i>EMS(CAT)</i>	<i>Études mongoles et sibériennes, centrasiatiques et tibétaines</i> , EPHE, Paris.
<i>EW</i>	<i>East & West</i> , IsIAO (ante IsMEO), Rome.
<i>HdO</i>	<i>Handbuch der Orientalistik</i> , Leiden-Boston.
<i>HJAR</i>	<i>Harvard Journal of Asian Studies</i> , Harvard.
<i>HR</i>	<i>History of Religions</i> , Chicago.
<i>IAHR</i>	<i>International Association for the History of Religions</i> , The Hague.
<i>IASS</i>	<i>International Association for Sanskrit Studies</i> .
<i>IF</i>	<i>Indogermanische Forschungen</i> .
<i>IHQ</i>	<i>Indian Historical Quarterly</i> , New Delhi, 1925-1963.
<i>IHR</i>	<i>Institutul de Istorie a Religiiilor / Institute for the History of Religions / Institut d'Histoire des Religions</i> , Academia Română, București.
<i>IIAS</i>	<i>International Institute for Asian Studies</i> , Leiden.
<i>IJJ</i>	<i>Indo-Iranian Journal</i> , Dordrecht.
<i>'Ilu</i>	<i>'Ilu. Revista de ciencias de las religiones</i> , Madrid.
<i>Iran</i>	<i>Iran. Journal of the British Institute of Persian Studies</i> , London.
<i>IsMEO / IsIAO</i>	<i>Istituto italiano per Medio ed Estremo Oriente / Istituto italiano per l'Africa e l'Oriente</i> , Roma.
<i>IT</i>	<i>Indologica Taurinensia</i> , Official Organ of the IASS, Torino.
<i>JA</i>	<i>Journal Asiatique</i> , Société Asiatique, Paris.
<i>JAAR</i>	<i>Journal of the AAR</i> , Oxford.
<i>JANER</i>	<i>Journal of the Ancient Near Eastern Religions</i> , Leiden.
<i>JAOS</i>	<i>Journal of the American Oriental Society</i> , New Haven / Michigan.
<i>JAS</i>	<i>Journal of Asian Studies</i> , Association for Asian Studies.
<i>JASB</i>	<i>Journal of the Asiatic Society of Bombay</i> , Bombay/Mumbai.
<i>JBE</i>	<i>Journal of Buddhist Ethics</i> , www.buddhistethics.org .
<i>JCR</i>	<i>Journal of Chinese Religions</i> , Harvard.
<i>JEAS</i>	<i>Journal of the European Āyurvedic Society</i> , Reinbek, 1990 sq. (2003: <i>TSAM</i>).
<i>JESHO</i>	<i>Journal of the Economic and Social History of the Orient</i> , Leiden-Boston.
<i>JJRS</i>	<i>Japanese Journal of Religious Studies</i> , Nagoya.
<i>JIABS</i>	<i>Journal of the International Association of Buddhist Studies</i> , Lausanne.
<i>JICA[P]BS</i>	<i>Journal of the International College for Advanced [ensuite : Postgraduated] Buddhist Studies</i> , Tokyo.

<i>JIPh</i>	<i>Journal of Indian Philosophy</i> , Dordrecht.
<i>JR</i>	<i>Journal of Religion</i> , Chicago.
<i>JRAS</i>	<i>Journal of the Royal Asiatic Society of Great Britain and Ireland</i> , London.
<i>JS</i>	<i>Journal des Savants</i> , Institut de France, Paris.
<i>MCB</i>	<i>Mélanges chinois et bouddhiques</i> , Bruxelles.
<i>MIO</i>	<i>Mitteilungen des Instituts für Orientforschung</i> , Berlin.
<i>MO</i>	<i>Le Monde Oriental</i> .
<i>MSS</i>	<i>Münchener Studien zur Sprachwissenschaft</i> , München.
<i>MTSR</i>	<i>Method & Theory in the Study of Religion</i> . Journal of the North American Association for the Study of Religions, Toronto.
<i>Numen</i>	<i>NVMEN. International Review for the History of Religions</i> , IAHR, Leiden.
<i>OC</i>	<i>Oriens Christianus</i> , Wiesbaden.
<i>OE</i>	<i>Oriens Extremus</i> , Wiesbaden.
<i>OLZ</i>	<i>Orientalistische Literaturzeitung</i> , Berlin.
<i>OS</i>	<i>Orientalia Suecana</i> , Uppsala.
<i>ÖAW</i>	Österreichische Akademie der Wissenschaften, Wien.
<i>(P)EFEO</i>	<i>(Publications de l')EFEO</i> , Paris.
<i>PTS</i>	<i>Pali Text Society</i> , London.
<i>RA</i>	<i>Revue d'assyriologie et d'archéologie orientale</i> , Paris.
<i>RB</i>	<i>Revue biblique</i> , Paris.
<i>RE</i>	<i>Revue d'égyptologie</i> , Paris.
<i>REI</i>	<i>Revue des études islamiques</i> , Paris.
<i>REJ</i>	<i>Revue des études juives</i> , Paris.
<i>Religio</i>	<i>Religio. Revue pro Religionistiku</i> , Czech Society for the Study of Religions, Brno.
<i>Religion</i>	<i>Religion</i> , London.
<i>RHR</i>	<i>Revue de l'Histoire des Religions</i> , Paris.
<i>RHPhR</i>	<i>Revue d'Histoire et de Philosophie Religieuse</i> , Strasbourg.
<i>RO</i>	<i>Rocznik Orientalistyczny</i> , Warszawa.
<i>RS</i>	<i>Religious Studies</i> , Cambridge.
<i>RSR</i>	<i>Recherches de science religieuse</i> , Paris.
<i>SBB</i>	<i>Sacred Books of the Buddhist</i> .
<i>SBE</i>	<i>Sacred Books of the East</i> , 50 vols., 1871-1910.
<i>SMSR</i>	<i>Studi e Materiali di Storia delle Religioni</i> , Roma.
<i>SA</i>	<i>Studia Asiatica. Revue internationale d'études asiatiques / International Journal for Asian Studies</i> , Association Archaeus. RAHR & IHR, București.
<i>SAO</i>	<i>Studia et Acta Orientalia</i> , București, 1957-1981.
<i>StII</i>	<i>Studien zur Indologie und Iranistik</i> , Reinbek bei Hamburg.
<i>StIr</i>	<i>Studia Iranica</i> , Paris.
<i>StOr</i>	<i>Studia Orientalia</i> , Helsinki.
<i>T</i>	<i>Taishō shinshū daizōkyō</i> , Tōkyō.

<i>Temenos</i>	<i>Temenos. Studies in Comparative Religion</i> , Finnish Society for the Study of Comparative Religion, Turku/Åbo.
<i>TP</i>	<i>T'oung Pao</i> , Leiden-Paris.
<i>TSAM</i>	<i>Traditional South Asian Medicine</i> , Wiesbaden, 2003 sq. (ante: <i>JEAS</i>).
<i>UAj</i>	<i>Ural-Altaische Jahrbucher</i> , Wiesbaden.
<i>WZKS[O]</i>	<i>Wiener Zeitschrift für die Kunde Süd[- und Ost]asiens</i> , Wien.
<i>Zalmoxis</i>	<i>Zalmoxis. Revue des études religieuses</i> , Bucarest, 1938-1942 [Iași, 2000].
<i>ZfR</i>	<i>Zeitschrift für Religionswissenschaft</i> , Marburg.
<i>ZDMG</i>	<i>Zeitschrift der Deutschen Morgenländischen Gesellschaft</i> .
<i>ZMRW</i>	<i>Zeitschrift für Missionswissenschaft und Religionswissenschaft</i> .
<i>ZRGG</i>	<i>Zeitschrift für Religions- und Geistesgeschichte / Journal of religious and intellectual history</i> , Leiden.

**THE BUDDHA'S EARTHQUAKES [I]
ON WATER: EARTHQUAKES AND SEAQUAKES
IN BUDDHIST COSMOLOGY AND MEDITATION,
WITH AN APPENDIX ON BUDDHIST ART**

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Moving of th' earth brings harms and fears;
Men reckon what it did, and meant;
But trepidation of the spheres,
Though greater far, is innocent.

John DONNE, *A Valediction Forbidding Mourning*
(1611?), vv. 9-12

I. The setting. II. The *Sutta of earthquakes*. III. One way, six ways of quaking. IV. Meditation, cosmology, earthquakes. V. Tranquil water: joy as imperfection. VI. Earthquakes substituted by seaquake or flood: the Sea Goddess and the Earth Goddess in Southeast Asia (Cambodia, Siam, Thailand, Burma). VII. Appendix: Earthquakes in Buddhist Art: illustrations from Magadha, Nepal, Xingjian, Qizil, Burma, Thailand. VIII. Integrating the earthquake into a work of art: Brâncuși's project at Indore (1921-1939). IX. General observations.

I. The setting*

It has gone unnoticed until today, it seems, that pan-Asian Buddhist scriptures – from Northern and Southern India to the world of Southeast Asia, and northwards, from China and Tibet to Mongolia, Korea, or in Japan – include many more references to earthquakes than those available throughout the history of Buddhist studies in all non-Asian languages (and also, perhaps, in modern Asian ones).¹ The immense continental and island area is subjected to strong and frequent

* The present contribution includes, in a considerably reworked form, parts from “On Water: Earthquakes as Seaquakes in Buddhist Cosmology and Meditation,” to appear in *Proceedings of the 3rd Conference of the South and Southeast Association for the Study of Religion / Regional Conference of the IAHR “Waters in South and Southeast Asia: Interaction of Culture and Religion”, Denpasar, Bali, 3-6 June 2009*.

¹ An earlier analysis in CIURTIN 2007a: 19-22 (also 2007b and 2007c). The groundwork explorations which have led to this general statement shall be set forth in my forthcoming work.

seismological activity², or else is earthquake-prone, and its literatures bear evidence of that to this day. Hundreds of texts of many kinds – from Pāli canonical *suttas* and commentaries, like the *aṭṭhakathā*, *ṭikā* or *vaṇṇanā*, to Sanskrit *sūtras* and *śāstras*, and to their abundant faithful renditions into Chinese and Tibetan from early and medieval times – mention and deliberate on earthquakes associated with the Buddha. The most pertinent canonical texts were translated into many other languages and cultural contexts (and seismic ones as well): precious references which identify the same Buddhist predicament are to be found in texts or fragments extant in Sogdian, Khotanese, Tocharian, Uighur, Mongolian, etc. Noting the recurrence of seismic elements in Buddhist thought, some scholars describe Buddhist earthquakes in general, in run-of-the-mill fashion, as “so popular as a *dénouement* in Buddhist tales” (Williams 1966: 2), as “a common enough occurrence in the Mahāyāna sūtras” (Strong 1977: 401) or, more generally and appropriately, as an earthquake “qui orchestre les grands actes de générosité et alerte les dieux” (H. Durt 2000b: 13), “a kind of rhythmical feature of cosmological nature in most of the tradition” (H. Durt 1999: 154 [259]), or even as “ein beliebtes Thema der buddhistischen Literatur” (Shimin, Laut, Pinault 2004: 49 n. 95). In the opening period of modern Buddhist studies, the circumstances for understanding Buddhist earthquakes were actually more limited. Even Burnouf had no definite means to appraise fully the recurrence of such “miracles,” as he once wrote: “Voilà un exemple des incroyables niaiseries auxquelles peut conduire la passion du surnaturel.”³ Alfred Foucher considered it a “cliché sacré,” without other specifications.⁴ On the other hand, to the genius of Burnouf belongs the first philologically accurate description:

² On seismic perception and activity (especially in modern South Asia), see, e.g., J. MACMURDO, ELLWOOD, BALLANTYNE, MACADAM, STEWART 1823-1877; L. A. BURNES 1827-1833; S. K. BANERJI 1930; A. F. M. ABDUL ALI 1935; C. F. ANDREWS 1935; J. P. SINGH 1986-1987; N. AMBRASEYS, D. JACKSON 2003; R. BILHAM 2004, and the several seismological contributions of R. N. IYENGAR *et al.* (1984-2006). R. BAIRD-SMITH published a *Memoir on Indian Earthquakes* as early as 1843-1844, but an *Indian Catalogue of Earthquakes* appeared only recently (A. BAPAT, S. K. GUHA, R. KULKARNI 1983). See also

³ Cf. E. BURNOUF 1852: 234.

⁴ A. FOUCHER 1905: I, 398. However, Alfred FOUCHER (1863-1952) was sometimes even more critical, speaking about “l’ennui scolastique avec ses pédantes énumérations,” “ce fouillis de platitudes et de contradictions” (1949: 158), or “de la monotonie de tous ces pas perdus ou de ces inertes litanies” (1949: 183).

“[Terre é]branlée de six manières différentes. Rien n’est plus commun dans les grands Sûtras du Nord que ces descriptions de tremblements de terre fabuleux [...] Ce sont trois verbes exprimant le mouvement et l’agitation à des degrés divers, qui sont différenciés par l’addition d’un ou de deux préfixes dont la nuance propre n’est pas bien définie.”

E. BURNOUF 1852: 307 [*ad* 4b].

No one, I think, will disagree here. However, as T. W. Rhys Davids had noted already in 1881, “the train of early Buddhist speculation in this field has yet to be elucidated.”⁵ To H. Kern belongs another intuition, this time related solely to the *Vessantara-jātaka*: “it appears that the earthquake, caused by the great liberality of the prince, is something most essential.”⁶

Furthermore, the entire geography of the early and medieval dissemination of Buddhism was prone to frequent earthquakes, of various magnitudes and intensities, and an additional link between earthquakes and cosmology may be found in the earliest colonial reports on such occurrences. After an earthquake on January 27th, 1820, James MacMurdo wrote from Kathmandu to William Erskine in Bombay, “At noon this day we had a very strong shock, attended by a loud noise like distant thunder. Several shocks have likewise occurred since the accompanying details were written. [...] I have felt the motion frequently during the night, and am anxious as to what may yet happen. The morning is close, and appearances unfavourable. My table and chair are at this moment shaking under me.” Detailed religious interpretations of earthquakes occur in other contexts. Reporting from Kutch, the same colonel MacMurdo, resident at Bhooj and “collector at Anjar,” described some eccentric indigenous earthquake manifestos from Benares concerning the same event of 1819, which stands proof of the strong modern inclination for syncretistic approaches:

“One of these papers was stated to come from Kassee (Benares); and, as it had a remarkable effect upon all classes of Hindoos, I am induced to submit a verbal translation of it: ‘A letter has been received in the name of Shri Ramjee. It has come from Kassi Benares. In the middle of this Iron Age, the Golden Age will make its appearance: Shri Bhuddajee will appear. Of the iron age have elapsed 492 years; and after Sumvut 1876 (A. D. 1819) the golden age will last 13,033 years. On the 5th Asonsood (or 24th September 1819), after twenty-two ghurries of the night have elapsed, at that moment will Bhuddajee appear, and the golden age commence. **The earth will shake for seven ghurries and thirty pulls. The earth will open: then will false and uncharitable people be swallowed up.**

⁵ RHYS DAVIDS 1881: 46, n. 1, and again in 1890/1973: II, 115 n. 2. Only WIJESEKERA 1990/1993, it seems, has cited it.

⁶ H. KERN 1880: 289.

Those who are charitable and religious, depend upon Bhugwun, give alms, do virtuous actions, and fear bad actions, – these will be saved. [...] This event has been extracted from the Vedas after much study'. [...] At the hour appointed in it for the destruction of sinners, almost every Hindoo of respectability purified himself, and sat with the toolsi leaf in his mouth, patiently expecting a fate which he had endeavoured to evade by liberal donations to Brahmins. [...] The Hindoo attributed the earth's motion to a quarrel among the Dyets and Dewas, and fabricated the most ludicrous stories on the subject. Prophets sprung up from all classes, castes, and sects: some asserted that they had foretold the calamity which had occurred; others boldly pointed out the moment and hour at which still more calamitous events were to happen; and in short there was a superabundant display of every thing absurd or extravagant that could be advanced by ignorance and presumption, deceit and superstition."⁷

One earthquake testimony has been preserved which belongs to Brian Houghton Hodgson – the person responsible for starting Buddhist studies in Europe, as a result of his sending dozens of Nepalese Mahāyāna manuscripts to London and Paris, while also highly interested in the natural sciences of Southern Asia – and it was written even as the earthquake's aftershocks were in progress: "[w]hilst I write, the Earth is trembling under my feet, and the unhappy population of the crowned Capital are responding with an audible wail of awe and fear to every mutter of the Earthquake."⁸ To take just one other example, from another angle of the Buddhist world, Yagumo Koizumi, better known as Lafcadio Hearn, published in 1897 a short novel titled "Living God" and included in his *Gleaning in Buddha-fields* (reminiscent of Sk. *buddhakṣetra* or *bodhisattvabhūmi*), where he described a seaquake.

⁷ Unabridged text in MACMURDO *et al.* 1823: 105-107 / 1877: 112-114.

⁸ Letter of August 28th 1833 addressed to W.M. Macnaghten, then Political Secretary for the Government at Fort William, published by A. F. M. ABDUL ALI 1935: 475. The major earthquake had taken place two days before. It was by no means an isolated statement. On January 27th 1820, James MACMURDO also wrote the following *post scriptum* to William Erskine in Bombay: "[a]t noon this day we had a very strong shock, attended by a loud noise like distant thunder. Several shocks have likewise occurred since the accompanying details were written" (J. MACMURDO *et al.* 1823/1877: 97; see also his four other letters in A. F. M. ABDUL ALI 1935: 468-473). The frequency of the earth's quakings was prodigious: "I have felt the motion frequently during the night, and am anxious as to what may yet happen. The morning is close, and appearances unfavourable. My table and chair are at this moment shaking under me" (J. MACMURDO *et al.* 1823/1877: 116). In terms of colonial history, the earthquake could also be seen as a marker of natural and ecological differences between the colonist (coming from a considerably less seismic isle) and the colonized, i.e., the inhabitants of South Asia.

Beyond a doubt, modern scholars of Buddhism have evidently edited, translated and discussed, brilliantly sometimes, the occurrences of earthquakes in Indian texts, but only in a few unconnected instances has their contribution amounted to more than just that. More often, earthquakes are relegated to a single minor note, or at the best to some paragraphs, to say nothing of the incongruence of certain approaches⁹. The insistence on “tale,” “motif,” or “literature” is part of the late career of an outdated approach, the comparative folklore of the 19th century, when the dominant paradigm of Buddhist narrative earthquakes was folklore, a case in point being the cover of the first Western translation from the Jātakas. To relegate all seismic episodes of the Buddhist doctrine and writings to mere fanciful literary motifs of things extraordinary – as many a scholar has done since Burnouf – is erroneous and risky for a real understanding of the texts we study.

Perfectly rendered by “tremblement de terre,” “Erd-beben,” “terramoto” (Italian or Portuguese) or “earth-quake,” Pā. *paṭhavi-*, Skr. *prthivī-* (or Pā. Skr. *bhūmi-*) Pā. Skr. *-kampa* (or Pā. Skr. *-cāla*)¹⁰ are common designations of mighty earthquakes manifested in crucial episodes of the Buddha’s, bodhisattvas’ and *saṅgha*’s life, as classified in most ancient Buddhist canons (preserved in Pāli, [Buddhist Hybrid] Sanskrit, Chinese and Tibetan), Mahāyāna scriptures and different post-canonical and commentarial traditions. Combining the comparative evaluations of such narratives from dozens of sūtras, we may well detect and in the interim already systematize the main parameters.¹¹ Some of these can be enumerated as follows: all Buddhist earthquakes mentioned by the Pāli Canon are determined by the kinetics of salvation, concentrated, literarywise, in an epicentre, in the most intense episodes of the Buddha’s life, the result of his power of concentration and firmness; no earthquake is autonomous, however, not in the common sense of Western “nature” or “earth;” there never is physical destruction, nor are there any casualties; they involve a sophisticated kind of stereocinetics; the earth, like the quaking, is qualitatively different from all our (post)modern representations, and being as such the earth, *acetanā* or not,¹² is summoned to the Buddha, the bodhisattvas and, later, to their

⁹ The single short article, an introduction whose viability should be tested, seems to be WIJESEKERA 1993.

¹⁰ Note the change from *prthivīcala* to *prthivīkampa*, together with the change of *kampati* in *calati* in later texts like the *Sūraṅgamāsamādhisūtra* 216 (É. LAMOTTE 1965 / 1998: 216).

¹¹ See E. CIURTIN 2007a: 19-20, 2007b, 2007c and forthcoming a).

¹² The best portrayal of this great literary and doctrinal theme remains I. B. HORNER 1966: 158-159: “[i]n Pali literature not the earth, but mount Meru (Sineru) is the symbol of stability. The earth, on the contrary, the sustainer or

iddhi (Sk. *ṛddhi*); such earthquakes are a subtle element of a larger anti-Brahmanical polemic regarding meditation and cosmology; the tectonic feature is completely dependent on *bodhi*, the earth participating rhythmically in the destiny of a *mahāsattva*; the earthquake-like roaring is a supreme example of religious sonicity (this time not only in early Buddhism, still a sharp difference persists); the Buddhist earthquakes express their fundamental *commentarial* character of the Buddha's biography, a kind of cosmic ratification; their "aesthetics" is simply not apocalyptic, and the texts explicitly state that ten thousand world-systems "shouted for joy." The very pinnacle of firmness for Indian, Central Asian and Chinese Buddhism – a historical geography always possessed of a delicate seismicity – involves producing earthquakes. Studying Vessantara's *mahādāna-anubhavā* from this point of view, one will discover a series of seven earthquakes¹³ following his gifts and classified as a whole as the ninth typology discussed by the *Milindapañha* and its commentaries. Vessantara's earthquakes are, however, not *magn-animous* – as Vessantara was portrayed in Victorian England – but quite *trepidans*, tremendous (cp. Fr. "trépidant"), and literarily, for Buddha's followers, *exorbitant*. Strongly related topics are: the structures of time (viz. instantaneity and fitting moments) and of deeds (karmic consequences), meditation (epicentres and scales of intensity), and cosmology. All early Buddhist earthquakes develop a powerful contrast between the masterly minerality of meditation, while the cosmic expression of earthquakes is of

supporter of Sineru, can not only split or open itself to form a fissure; it can also quake and tremble: eight causes of earthquakes, *bhūmicāla*, are enumerated (D. ii. 107, A. iv. 312). [...] And, though over and over again is called *acetanā*, incognizant, unconscious, un-volitional, this does not seem borne out entirely by the facts recorded. At least one commentarial passage (DA. 560) faces the difficulty: it argues that when from the eight causes the earth quaked during the conception and nativity of the Buddha, that the earth had no incognizance, *n'atthi acetanatta*, may be attributed to the earth-*devatās*. Otherwise, apart from this passage which may be unique, the earth is described as *acetanā*. (e.g., Miln. 179; AA. i. 183). Whether earthquakes are being reported or the earth's opening itself and forming fissures and chasms to entrap those of gross unskill. [...] The earth therefore, though utterly indifferent alike to the lovely and the filthy things thrown on it (M. i. 423), seems to be endowed by popular tradition with some awareness of 'world-shaking' events in the life of man; and though it is difficult to determine whether it is regarded as more or less alive, whether cognizant or not, it could be regarded as an active agent. And not only active, but also co-operative in its power to mark astounding events by quaking and trembling [...]." On *paṭhavī udriyati*, see also O. von HINÜBER 1994/2005: 152.

¹³ An earlier but less known Chinese version mentions no earthquake (cf. H. DURT 1999: 154 [259]), a fact which will be of the highest importance for the comparative study of its textual transmission.

the very nature of sounds and vibrations. Buddha's petrified *nunc stans* entails the world's sonic *nunc tremens*.

II. The "Sutta of earthquakes"

The Buddhist texts themselves are by far more generous, subtle and systematic in this respect. In the Pāli canon, the *Bhūmicālasutta*, literally the *sutta* of earthquakes, from a *vagga* specifically named *Bhūmicāla*, belongs to a fundamental episode of the *Mahāparinibbānasuttanta* (sixth part), which occurs after the last interference of Māra in the Buddha's biography and his subsequent announcement that he is to enter nibbāna three months after rejecting his remaining "vital compositions" (*āyusaṅkhāraṃ*). At that moment, when the Buddha and Ānanda dwell alone near Vesālī, at a shrine (*cetiya*) concordantly named Cāpāla,¹⁴ an extremely powerful earthquake emerges. The Buddha then offers an explanation¹⁵ to Ānanda's bewilderment. There are good reasons for including this *sutta* among the earliest ones of the *Dīghanikāya*, as it "makes good sense in the context"¹⁶ even if the subsequent text seems to be affected by interpolation, one which was considered representative – for the composition and closing of the Canon – by the best Pāli scholars¹⁷. Let us reread the essential text in

¹⁴ On this name, see MALALASEKERA 1937-1938/2003: 863 and BAREAU 1979: 77 / 1995: 339, who distinctively recognizes the possibility that the place might possess a seismological memory ("Le mot *cāpāla* significant mobilité, instabilité, on pensa que le sanctuaire en question marquait un endroit où la terre avait manifesté cette mobilité, avait tremblé").

¹⁵ Almost everything from this *sutta* would be changed, accommodated into other contexts, or considerably altered, during the polymorphic transmission of the Buddhist tradition, including this very explanation of the cause, which does not remain the Buddha's speciality. A sextuple earthquake accentuates the gift and departure of Vessantara's children (see *infra*), but with a significant difference. From two early 8th c. CE Chinese translations by Yijing, of the *Mūlasarvāstivāda Saṃghabhedavastu* and *Bhaiṣajyavastu*, "[w]e learn that a *ṛṣi* called Vāsiṣṭha [...] explains the cause of earthquakes as the gift of the children, the sight of whom was a joy for everybody (*T* 1448 66c1-5; *T* 1450 1823b23-c1)" (H. DURT 2000a: 135 [268]).

¹⁶ O. von HINÜBER 1996/2001/2008: 31 § 60). Some critically edited texts, translations, and indexes are K. E. NEUMANN 1911/1923; R. O. FRANKE 1913; K. E. NEUMANN 1907-1912-1918; M. WALLESEER 1924/1973; W. STEDE 1931-1932/1971; M. YAMAZAKI, Yumi OUSAKA, K. R. NORMAN, M. CONE 1997; J.-U. HARTMANN 2004: 119-137; ĀNANDAJYOTI 2008.

¹⁷ One specific difficulty is dealing with "such an unusual long text. Time and again they [*scil.* the authors] are at the point of losing their thread, e.g. then the Buddha

its most recent authoritative translation¹⁸, by the acting president of the Pali Text Society, inserting the Pāli terms and concepts that constitute the topic of this investigation:

“Then the venerable Ānanda went to the Blessed One, saluted him, and then sat down on one side.

Once seated, he spoke to the Blessed One: ‘This is remarkable, this is extraordinary – the earth quaked, the earth quaked violently, frightening, making my hairs stand on end, and claps of thunder rent the sky! What is the cause, what is the reason, what is the cause for the occurrence of this earthquake?’

‘There are these eight causes of and reasons for the occurrence of earthquakes. Which eight? This great earth rests on water (*mahāpaṭhavī udake paṭiṭṭhitā*), the water on wind, and the wind on space. At times the **great winds** blow; when they **disturb the water**, the disturbed water **disturbs the earth** (*hoti so kho [Ānanda] samayo yaṃ mahāvātā vāyanti*,

explains the eight reasons for an earth quake to Ānanda, which makes good sense in the context, other group of eights from the Aṅguttaranikāya follow suit, which have no relation at all to the context (DN II 107,19-112,20). This at the same time shows how pieces of texts known by heart may intrude into almost any context once there is a corresponding key word. This ‘uncontrolled orality’ created those small sections, called ‘Sondertexte’ by P. Hacker, which are embedded in larger texts” (von Hinüber 1996/2001/2008: 31). The sūtra “is attested by all versions and is firmly knit together with the action of the narrative” (E. FRAUWALLNER 1955: 156-158 [here 158]). “Sometimes it is because a passage seemed appropriate to the context. For example, when in the Mahāparinibbānasutta the Buddha has given eight reasons for an earthquake occurring, a number of other sets of eight phenomena are added” (K. R. NORMAN 1997: 3 / 2006: 4). K. R. Norman perceives in the very title the existence of a *Cūlaparinibbānasutta*, purged from the additions which can still be made out, see K. R. NORMAN 1983: 37.

¹⁸ The first English translation of our text was made by George Turnour (1799-1843): “He inquires from him the cause and the import of an earthquake; BUDDHO and [sic] explains that ‘The great earth rests on water, the water is sustained by the wind, and the wind is supported by the air (or atmosphere); and when a storm prevails a natural earthquake is produced – this is the first cause; and the effect of a great quaking of the whole earth. The second series of causes proceeds from the miraculous powers possessed by inspired persons’” (Turnour 1837-1838, V: 1001-1002). The first French translation (from the *Divyāvadāna*) and commentary were offered by Eugène Burnouf in *Histoire* (E. BURNOUF 1844: 79-82; English edition forthcoming (E. BURNOUF [2009])). In his review, Bathélemy SAINT-HILAIRE noted, “il [*scil.* the Buddha] lui [*scil.* Ānanda] explique, pour le préparer sans doute aux grandes catastrophes qui doivent accompagner sa mort, les causes d’un tremblement de terre” (*L’Institut, Journal universel des sciences, et des sociétés savantes en France et à l’étranger*, IIe section: *Sciences historiques, archéologiques et philosophiques*, nos. 133 (janvier), 1847: 6-11 (here 7).

*mahāvātā vāyantā, udakaṃ kampaṇti*¹⁹, *udakaṃ kampitaṃ, paṭhaviṃ kampaṇti*).²⁰ This is the first reason and cause (*paṭhamo hetu paṭhamo paccayo*). Again, when an ascetic or Brahman who has abilities and has gained the mastery of the mind, or when a good of great accomplishment and power has cultivated the notion of earth as insignificant (*parittā paṭhavisaññā bhāvitā*) and of water as immeasurable (*appamāṇā āposaññā*), then he disturbs the earth, shaking it, causing it to shudder, and quake (*kampaṇi saṃkampaṇi sampakampaṇi sampavedhati*). This is the second reason and cause²¹ (Gethin 2008: 61).

I shall privilege here the analysis of the first cause of earthquakes, its strong connections with the second one, the significance of its position in the greater list, and also the relevance of earthquakes in the Buddhist world. While the *Mahāparinibbānasuttanta* “is indeed the first really long literary composition extant in ancient India [...] built according to a uniform plan [...] the structure of the text [...] has never really been investigated.”²² This statement is particularly helpful when taking a fresh look at the above quoted “Sūtra of Earthquakes,” which in fact opens – in Pāli, Sanskrit, Prakrit, Chinese and Tibetan sources – as a “sūtra of seaquakes.” Despite the enormous modern and multilingual literature on the

¹⁹ On *kamp*, see J. KELLENS 1986: 344-377.

²⁰ Compare *mahāvātesu parikupitesu udakaṃ kampaṇi* and *udake kampite mahāpaṭhavi kampaṇi* (Mil 118.14-15), *dasasahassilokadhātu [...] paduminiṇaṇṇe e udakabindu viya akampaṇittha* (Ps II 135,20), or *upari [...] udakaṃ vātehi kampaṇi* (Nidd I 353.10).

²¹ The *sutta* appears, with some variations, in other canonical texts: *Āṅguttara-Nikāya* IV 307 sq.; *Saṃyutta-Nikāya* V 259 (but after the inclusion of the *sutta* on the eight assemblies and without enumerating the causes), *Udāna* 62. I leave aside for another occasion the study of their textual and doctrinal relationship.

²² O. von HINÜBER 1996/2001/2008: 31; subsequent analysis in O. von HINÜBER 2009b: 47-48, 61-66. The pioneering scrutiny and results of E. Waldschmidt and A. BAREAU, who tried for the first time to comprehend the entire textual history, are available in a series of volumes: see above all E. WALDSCHMIDT 1939: 55-94 [now in 1967]; 1944-1948; 1948: 48-91 / 1967: 120-163; 1950-1951; 1961: 375-385 / 1967: 417-427 and A. BAREAU 1963-1970-1971-1995; see also A. BAREAU 1987: 13-37 / 1995: 367-391 / 1999: 141-166 and the relevant portions of A. BAREAU 1985 (other significant discussions in E. WALDSCHMIDT 1953-1956; 1988, and 1989). For the Theravāda version see also Y.-G. AN 2003. For the Mahāyāna one, also K. YAMAMOTO 1973-1975 and 1975; A. YUYAMA 1981; M.-W. LIU 1982: 63-94. For its reception and history in China, see W. W. LAI 1982: 99-106; Chr. BARBIER-KONTLER 1993: 301-320, and for the Dharmaguptaka version A. BAREAU 1969: 9-21. Specific and/or comparative studies include W. PACHOW 1945: 167-210 & 1946: 1-41; K. S. CH'EN 1958: 128-133; R. B. WILLIAMS 1970: 156-167; J. SILK 2006. For a more recently discovered Gāndhārī version written in Kharoṣṭhī, see M. ALLON, R. SALOMON 2000: 243-273.

parallel texts, our knowledge of this kind of earthquakes has progressed only little.

The sequence *mahāpaṭhavi udake paṭiṭṭhitā* is clearly reminiscent of the Brāhmaṇa and Upaniṣad cosmology, where the agent of firmness is a kind of “Urwasser” (H. Günther, *ZDMG* 1944: 49). We can without any doubt recognize in the background of *paṭiṭṭhitā*, which is present in other Theravāda reports on earthquakes (cf. *infra*), the “support” or “fundament” (*pratiṣṭhā*) of the earth, which indeed is made up of the primeval (salty²³) waters in different Indian pre-Buddhist cosmologies.²⁴ In those cases, as for instance in the *Śatapatha-brāhmaṇa* II, 1.1.8-10, the primeval earth is still not firm: “this earth was then trembling like a lotus-leaf”²⁵. According to the *Sumaṅgalāvīlāsini* (*DA* I 131) the earth trembled from the water upwards (*udaka-pariyantam eva katvā paṭhavi akampitha*) when the Dīghabhānaka theras recited the *Brahmajālasutta*²⁶. According to the *Mahāvastu* (I 241 Senart; Jones 1949: 199), sometimes “the earth with ocean and sky quaked, and among the devas in heaven a wondrous shout went up.” Many other texts, as for instance the *Asokāvadāna*, repeatedly mention the quaking of both earth and ocean: “Throughout Indra’s threefold world, | there shone a supernatural light, | dazzling like gold and delighting the eye | the earth

²³ On salty waters and oceans in pre-Buddhist cosmological India, see now W. SLAJE 2001: 37-40 and W. SLAJE 2005 [2006]: 189 *cum* n. 32, which mentions Bhāskaramiśra’s commentary on *Taittirīya-saṃhitā* V 6.4.2-3 about “the idea of the transformation *from* water,” which should be compared to Buddhist texts such as the *Mahāvastu* I 339 & 344 Senart (JONES 1949: 286 & 290), on BHS *prthivīrasa* (Pā. *rasapaṭhavi*), the cosmogonical “essence of the earth,” or the “savory earth.” For *prthivī-* or *bhūmirasa* corresponding to *amṛta* / *amata*, nourishment of the primordial beings in Tantric Buddhism, see A. WAYMAN 1973/2005: 25-27 and A. WAYMAN 1997: 57 n. 9.

²⁴ On Buddhist cosmology and its background, see [J. BLOCH, J. FILLIOZAT,] L. RENOU 1949; R. F. GOMBRICH 1975: 110-142; F. REYNOLDS, M. B. REYNOLDS 1982 (with the review essay of S. TAMBIAH 1984: 73-81); W. R. KLOETZLI 1983/2007; R. L. THOMPSON 1989/2004; S. DIETZ 1989: 489-497; 1990: 442-449 and 2003: 207-225; K. MEISIG 1990: 541-554; R. F. GOMBRICH 1992: 159-178; A. SADAKATA 1997 (and the review by R. GETHIN 1998: 74-77); KAJIYAMA Y. 2000/2008: 183-199; C. MINKOWSKI 2004: 349-385.

²⁵ References in F. B. J. KUIPER 1970: 99-100 n. 14, 103, 109-110, who aptly described the cosmogony’s result as *instabilis terra*; also H. KOTTKAMP 1996: 314-316 and 334 n. 151. The ŚB occurrence was often discussed since Eggeling, Lévi, Mus. See also GUPTA-GOMBRICH/SHARMA 1996: 376.

²⁶ This is not only a cosmological reference, but also an insight into DN intertextuality (which will be explored later): the *Brahmajālasutta* itself mentions three earthquakes. Moreover, earthquake occurrences are in both verse and prose, e.g. in the *Vessantara-jātaka* (XII. 486, trsl. 6: 251).

and its mountains, ringed by the ocean, | shook like a ship being tossed at sea.”²⁷

The second cause has different relevant variations: the Pāli text says only “ascetic or Brahman” (*brāhmaṇo vā ... devatā vā*), but the Sanskrit and the (Vinaya) Chinese ones, possibly later but most interestingly, add the *nuns* (*bhikṣuṇī*), repeating thus twice the description of the whole second cause.²⁸

The other causes (3-8) when “the earth is disturbed, it shakes, shudders, and quakes” – a sextuple mnemonic repetition – are: “[3] when one who is intent to awakening falls from the company of Contended Gods and mindfully and fully aware descends into his mother’s womb (...) [4] when leaves his mother’s womb (...) [5] when the Tathāgata awakens to the supreme complete awakening (...) [6] when the Tathāgata turns the unsurpassed wheel of Truth (...) [7] gives up the factors of life (...) [8] attains nibbāna by means of the nibbāna that is without any remnant of attachment [*upādi*]” (Gethin 2008: 61-62).

In their thoughtful analysis of the *Mahāparinibbānasuttanta* and related literature, Jean Przyluski (1885-1944)²⁹ and André Bareau (1921-1993)³⁰ noted a long time ago that the eightfold list was not eightfold in the beginning, as they were able to compare the early extant Chinese translations, a methodological requirement that – since the epochs of their professors Sylvain Lévi (1863-1935) and Paul Demiéville (1894-1979), up to scholars with *acintya*-like philological expertise like Mgr Étienne Lamotte (1903-1983) and Jan Willem de Jong (1921-2000) – was met with commendable proficiency. However, when one looks more closely at the constitution of the DN list, it will appear that all *types* of causes are already there: cosmology, meditation, and crucial events of the Buddha’s life. We do have firm reasons to suppose that this first cause of earthquakes was included in every early list that explained, from an Indian cosmological or a Buddhist worldview, the production of earthquakes. It is true that not every such list included the whole eightfold account. More primitive versions of a number of different texts existing in

²⁷ Transl. J. S. STRONG 1983/1989/2002: 246 and 120-121 (discussion).

²⁸ E. WALDSCHMIDT 1950-1951: 215 translates the Chinese Vinaya “eine Nonne oder Gottheiten,” mentioning (214 n. 14) that the *Divyāvadāna* has here only *devatā*.

²⁹ J. PRZYLUSKI 1918, republished in J. PRZYLUSKI 1920.

³⁰ Professor at the Collège de France, André Bareau published several invaluable contributions on the *Mahāparinibbānasuttanta*, with slight variations before and after his main study (A. BAREAU 1979: 45-103 / 1995: 307-365): see especially A. BAREAU 1973-1974: 447-475; A. BAREAU 1974: 275-299/1995: 493-517; A. BAREAU 1974-1975: 451-467; A. BAREAU 1975-1976: 493-504 and A. BAREAU 1976-1977: 567-580.

Pāli, Sanskrit, Chinese and Tibetan mention a lesser number of causes. Nonetheless, the integrity of the Pāli list is preserved. From another perspective, Bareau accepted that the earthquake here mentioned belongs to the *sutta*'s most primitive core³¹, even if he did not admit of this earthquake as a possibly real event during the Buddha's life³². There is, it seems, just one single scholar, Tilmann Vetter, who considered, commenting upon the same *multa prodigia*, that the earthquake was a real event and the *sutta* consequently a reliable report.³³

The text of the Sanskrit *Mahāparinirvāṇasūtra* is rather similar:

17.3 ko bh(adanta hetuḥ kaḥ pra)tyayo [*Divyāvadāna* adds: *mahataḥ prthivīcālasya*] yenaitarhy a(bhūd mahāprthivī)cāla ulkāpāta di(śodāhā) antarīkṣe devadundubhayo 'bhinadanti | (aṣṭāv ime) h(e)tavo 'ṣṭau pratyayā (ma)hataḥ prthivī(cā)lasya | katame 'ṣṭau |
17.4 (i)yaṃ mahāpr(thivy) apsu pratiṣṭhitā || āpo vā(yau) pratiṣṭhitā v(āy)u(r ākāṣe pratiṣṭhitāḥ || bhavaty) ān(anda sama)yo yad ākāṣe viṣamā vāyavo vānty āpaḥ (k)ṣ(o)bhayanti || āpaḥ kṣubdhāḥ prthivī(m) cālayanti ||

³¹ “La version primitive du récit qui sera le noyau de toute cette sixième partie de notre *sūtra* devait se réduire à deux éléments : le Buddha rejette ses compositions vitales, alors qu’il se repose auprès du sanctuaire de Cāpāla, et aussitôt après la terre tremble” (BAREAU 1979: 77).

³² See A. BAREAU 1974: 461: “Māra, satisfait, s’éloigne et le Buddha ‘rejette ses compositions vitales’ en concentrant sa pensée. Aussitôt, la terre tremble violemment pour annoncer au monde cet événement capital. Cet épisode, le plus important de la sixième partie [du *MPNS*], est entièrement légendaire de toute évidence;” and also A. BAREAU 1975: 451-452. Before that he expressed a clear-cut reluctance: “les noyaux des VI^e et IX^e parties du *MPNS* contiennent au contraire [*scil.* des autres parties] des épisodes manifestement légendaires, faisant du Bienheureux un surhomme capable de causer un tremblement de terre” (A. BAREAU 1975-1976: 495). A complete critical evaluation of Bareau’s results on the great *sūtra* must take into account the observations of F. BIZOT 1994: 6-7 (“Méfiant à l’égard de l’imagination, il [Bareau] a été épris d’un idéal du bouddhisme, sorte de noyau originel, excluant toutes les formes de religiosité que les sectateurs de différentes écoles nées dans sa mouvance avaient développées après coup, et qui correspondait, selon lui, à l’enseignement authentique du Maître.”)

³³ “What seems to be a reliable report is that shortly before the Buddha’s death an earthquake took place and it is possible that the Buddha explained this as an omen of his imminent decease. According to the *Skandhaka* [of the *Vinaya*], this earthquake was *caused* by the Buddha’s decision to finally enter nirvana. Afterwards every [*sic*] important event in the life of the Buddha is connected with an earthquake. This is only an example of the process of adaptation”, see T. VETTER 1988: xiv-xv.

A long time ago Rhys Davids (1881: 46 n. 1) suggested an earthquake-based comparison with the *Mahāpadānasutta*. This was indeed the suggestion of Buddhaghosa in his own commentary on the *sutta* of earthquakes. The subcommentary *Sv-ṭī* II 201, 1-6 explains that from the third and the fourth causes the six others can be inferred (An 2003: 101 n. 2). The interrelationship of the causes or, to be clearer, the list as a system, was indeed perceived within the Theravāda tradition. A certain memory of early causes sets apart Buddhaghosa's commentary in a special way. For the great Theravādin of the early 5th century, the first two causes needed a longer and separate discussion, and for the six others associated with the chief events of the Buddha's later earthly life he added only: "what is to be said is given in the *Mahāpadāna*." More importantly, he shift the analysis by means of a thoughtful *da capo* ("thus among these eight earthquakes"), as indicated in Table I.

I	<i>dhātu-kkhobena</i>	through the shaking of the elements
II	<i>iddhānubhāvena</i>	through <i>iddhi</i> (Sk. <i>ṛddhi</i>) power
III & IV	<i>puññatejēna</i>	through the effulgence of merit
V	<i>ñānatejēna</i>	through the effulgence of knowledge
VI	<i>sādhukāra-dāna-vasena</i>	“by way of giving applause”
VII	<i>kāruṇṇa-sabhāvena</i>	through natural compassion
VIII	<i>āroḍanena</i>	through lamenting ³⁷

³⁶ A concordance of cosmology, meditation, and earthquakes will include Theravāda sources as the *Abhidhammatthasaṅgaha* 22-24; the *Vibhaṅga* 422-426; the *Visuddhimagga* 7.40-44 & 8.29-65; the *Dighanikāyaṭṭhakathāṭīkā* 1.217, see GETHIN 1997: 194 and GETHIN 1998: 116-117). For a first tentative comparison of *jhānas* and cosmological realms, see figures 9 and 11 in P. MASEFIELD 1983: 78 and 85. See the analogous list of six episodes of the Buddha's biography discussed by J. A. SILK 2003: 863-881; or the list of four *acchariya-abbhuta-dhamma* including quakings in D. V. FIORDALIS 2008: 52-53; and of course the multilingual literature associated with the "twelve deeds" of a Buddha.

The suppleness of the verbal construction is significant: from the three successive verbs that intensify the earth's quake in Pāli texts, we come later on across a double series of three verbal forms and, most importantly, we encounter considerable variation in the choice of verbs, viz. the adoption of quite a few synonyms, while the classical stock phrase is preserved. Some Sanskrit Buddhist texts which have been recovered outside Gangetic India testify to this variability, while still always preserving the standard narrative intensification. A fragment of a Sarvāstivāda version of the *Mahāparinirvāṇasūtra* (17.4) found in Turfan reads our first cause as follows: *āpaḥ kṣubdhāḥ pṛthivī(ṃ) cālayanti*, with the more general cosmological account: *ākāśe viṣamā vāyavo vānty āpaḥ (k)ṣ(o)bhayanti* (SWBT 1998: 150b). The Gilgit *Samghabhedavastu* also has some other variations.

According to Mark Allon (1997: 199-200 n. 17), the sequence *kampati saṃkampati sampakampati sampavedhati* has a 3+4+5+5 syllable pattern, and equally a metrical one (see also Allon 1997: 248), a fact that gives evidence of the canonical and mnemonic character of earthquake formulae, proving also their antiquity. Exploring the same set in Buddhaghosa's commentary on the Vinaya, a larger but somewhat forgotten explanation about "the practice of learning off string of synonyms" was given by E. J. Thomas:

"Here we have the same series of compounds as we find repeatedly in the Niddesa, and Buddhaghosa is only using an earlier phraseology. It appears not only in later commentators but also in Sanskrit and especially Mahāyāna works. In several of these a **standing description** of an earthquake occurs. The synonymous verbs *kamp-*, *vidh-*, *cal-*, *kṣubh-* are given, followed by *ran* and *garj* and each is expounded into compounds with *pra* and *sampra*. If this stood alone, it might be taken merely as the verbosity of a particular author, but there are other instances, and they often correspond with series of synonyms in the Niddesa."

E. J. THOMAS 1926: 500-501³⁸.

The cosmology of the *Sāmaññaphalasutta* describes the foundation of the universe starting from the original and unique water (*ekodakibhūtaṃ*).

³⁷ Y.-G. AN 2003: 101 notes that the third knowledge is referred to as penetration (*paṭivedha*) (also 2003: 93).

³⁸ Thomas compared the *Lalitavistara*, the *Avadāna-śataka*, the *Mahāvastu*, the *Saddharmapuṇḍarikasūtra* and the *Karunapuṇḍarikasūtra*, on which see CIURTIN forthcoming ʒa. This is basically the situation for the *Samādhiraṇasūtra* also (cf. *infra*).

The Jain “lower world” (*ahe-loga*) has seven regions and in between “there are spaces of unmeasured extension [...] Any concussion of their hulls (*guvie samāṇe*) is conveyed by the water hull to the earth and causes a general earthquake.”³⁹ But this Buddhist and Jaina view, “reminiscent of pre-Socratic philosophy, is quite different from India’s religious cosmologies” (R. Gombrich 1996/2007: 92). From early Milesian philosophy to Aristotle and the medieval Byzantine thinking, the combination of water and winds in the production of earthquakes was largely accepted as the dominant view, by most Christian authors as well, and sometimes examined in modern scholarship (at least since Osip Mikhailovich Kovalevskiy (1801-1878) published his *Buddhist Cosmology* [Kazan, 1837; in Russian]).

Wijesekera (1990/1993: 3) ambiguously considers the first cause as “the nearest approach to a modern seismological explanation of the origin of earthquakes.” But as Ian Harris argued, “[m]any contemporary Buddhists, particularly in Sri Lanka, regard this as a surprisingly modern view of the origin of earthquakes, but when read in context, we discover that this is only one special category of earthquakes discussed in the text” (Harris 2001: 240).⁴⁰

III. *One way, six ways of quaking*

Let me only mention here the numeric similarities between the six causes linked to the Buddha’s biography (the reasons 3-8 in the standard text), the six manners of an earthquake’s production, the six moments of an earthquake, and the six earthquakes. Seismical *ṣaḍ* is frequently met in later Buddhist Hybrid Sanskrit texts,⁴¹ and known for instance in Tocharian and Khotanese.⁴²

³⁹ W. SCHUBRING 1935/2000: 210; see also the earthquakes mentioned by L. ALSDORF 1947: 105-128 / 2001: 136-159 and especially W. KIRFEL 1920/1967/1990 and C. CAILLAT 1981. On non-Buddhist earthquakes, see most recently S. CH. DASH 2002-2003 [2005]: 173-180, and S. N. JHA 2001: 842-865.

⁴⁰ AN 2003: 101 n. 3 is also rather misleading when he qualifies the *other* seven causes as pertaining to “artificial power”. A single reference to Przyluski – who ably commented the whole in 1918 – in AN 2003 (supplied in fact by Richard Gombrich).

⁴¹ For example, Jones translated the *Mahāvastu* as “six times,” but added for *vikāra* “literally ‘in six changes’ or ‘disturbances’” (JONES 1949: 34 n. 1).

⁴² “With preverb *bi-* Khotanese has *bārriysātā* in the cliché *ṣṣei-padya bārriysātā*, ‘shakes in six ways, *ṣaḍ-vikāraṃ kampati*’” (BAILEY 1960: 16). Cf. also Khot. *harīysa* / *-ām* “trembling,” later on Khot. *bīrīysya* “to tremble, waver, shake”

Before finding the unique right place for his *bodhi*-poise, Gautama tests out all the points of the compass.⁴³ The Eastern side will prove to be the single one which “neither trembles, nor quakes” (Warren [1896] 1922: 76). This circumambulation of the *bodhi*-tree should be compared with the symbolic values associated with the *bodhimaṇḍa*, the very spot of the earth where the Buddha shall obtain Enlightenment, which is reputedly immovable. Later doctrinal developments deepened the theme: there are on the earth as well as in the universe four such *avijahitaṭṭhānāni*, “unchanging spots” (Malalasekera 1937-1938/2003: 324), of which two are related to the earthquake’s causes – notably the 5th and the 6th causes – and the two other to eminent *pāṭihāriya*⁴⁴. The multiplication of *bodhimaṇḍa* as *mahācaitya* in the subsequent Mahāyāna doctrine adopts the same pattern.⁴⁵

It seems that no one has asked why one quake associated with this event becomes sixfold in later texts – and there are cases of texts with one quake becoming six quakes in the commentaries – , nor whether there are specific reasons or only a matter of an artificial and obscure inconsistency. We shall note that every time when the future Buddha

(DRESDEN 1955: 417, 467 and 490). Also M. MAGGI 2004: 132 (“all the regions quake”, after *EB* III.78, but “senza indicazione della fonte”).

⁴³ *Atharva-veda* knows already six the points of the compass.

⁴⁴ This despite the fact that “miracles” here is restrictive and highly problematic, as modern observers abandon many doctrinal implications. The first one is associated with the Sāṅkāsya, one of the supernatural classic events, but the second with a more discreet recurrent episode, the Buddha’s stay in *gandha-kuṭī*, the personal “Perfumed Chamber” he had in Jetavana monastery (and not only there). See J. STRONG 1977: 401 sq. (and there is also a Mahāyānic Tathāgata Sugandhakuṭī.) See also D. V. FIORDALIS 2008: 49 (earthquakes) and *passim*.

⁴⁵ See especially É. LAMOTTE 1962: 198 / 1994: 94-99; É. LAMOTTE 1965: 221 / 2003: 195-196 *cum* n. 242 (such unique places become quasi identical, without any difference [*sama*, *nirviśeṣa*]), A. YUYAMA 1968: 490, and G. SCHOPEN 1975: 173 *cum* n. 48, with his subchapter on the Mahāyāna *bodhimaṇḍa* (G. SCHOPEN 1975: 172-181 / 2005: 46-52, 60-62). Note that three events from the eightfold earthquake list – *bodhi*; *dharmacakrapravartana*; *parinirvāṇa* – are associated with such a *single* place in *Saddharmapuṇḍarikasūtra* 391.6-13. See also H. W. BAILEY 1963: 72-77 (on *mand-*) and M. E. SHAW 2006: 20-22. As is well-known, the most ancient texts are not univocally convinced of the proper dimension of the *bodhimaṇḍa*. I venture that this could also be discussed in terms of circumambulation, as the Buddha is the whole time facing the tree, not the horizon, nor simply visiting the neighbourhood of the tree (*bodhi-samīpa*) (as in *Mv* II 413.3, *cp.* YUYAMA 1968: 490). Perhaps the diameter of this circumambulation, at least for some texts or episodes, is the *bodhimaṇḍa*’s dimension. Also J. POWERS 2009: 46: “the earth [...] bore witness to the appropriateness of his residence there by generating a tremor.”

comes to a *bodhi*-tree side, he experiences a wavering of couples of half- (not quarter-) worlds: South-North, West-East, North-South. Each of the previous three couples, right there where he tests the place – on the Southern, then Western, and finally Northern part of the tree – will sink down so deep that “it seemed to touch the Avīci hell”. So the Buddha, just before he takes to sitting immovably, has the threefold experience of a world that shakes and quakes in a cosmic disequilibrium, whose dimensions are indeed that of the cosmology of the day: highest heaven vs. Avīci hell. Three quarters of the *bodhi*-tree are instable and insecure. Promised to Buddhahood, the Blessed One will, however, first undergo an extraordinary threefold unsteadiness, in which – together with that part of the world where he is momentarily sitting – he seems to touch the deepest hell. Explicitly qualified as a seismic one, the same as in the *Nidānakathā*, the move precedes – at least in the Buddha’s biography – every other type or occurrence of an earthquake. To describe the quake, our text adopts this simply ideal image of a cosmic cart wheel trodden on:

“Wherever, indeed, he stood, the broad earth rose and fell, as though it had been a huge cart-wheel lying on its hub, and some one were treading on the rim.”

H. C. WARREN [1896] 1922: 76:

“to him, where he was standing, the earth seemed to bend up and down like a great cart wheel lying on its axis when its circumference is trodden on”

T. W. RHYS DAVIDS 1880: 75-76.

This seems indeed to be the internal doctrinal coherence one would expect from an accurate transformation – one quake into six – of an old element of tradition.⁴⁶ As we have seen, only the fourth couple of horizons, East-West, is unshakable. Nevertheless this early representation of world-quakings will change, especially in Mahāyāna. Later only, the six types of earthquakes⁴⁷ will be transformed into six times a single one.

⁴⁶ Buddhaghosa explains the immeasurables by noting that “even the world (*cakkavāla*) is too narrow and even the highest point is too low” (Y.-G. AN 2003: 161). A similar treatment of cardinal points seems to appear when, in the *MPNS*, the Mallas bring the corpse of the Buddha, as they are unable to lift it but out of the city by the eastern gate; see O. von HINÜBER 2009b: 55 (“very unusual.”) Cp. the fragment in A. F. R. HOERNLE 1916/1970: 169 (Sanskrit) and 171 (English translation), and the review of the reprint by J. W. de JONG, *IJJ* 15 (1972), p. 265, adding *Theragāthā* 640-643, the Chinese *Madhyamāgama* (T 1 612c-613a), the *Samyuktāgama* (T 2 62a-b) and the *Dharmaguptakavinaya* (T 22 844c-845a).

⁴⁷ The *Nidānakathā* mentions twelve in the last watch (WARREN [1896] 1922: 82), because the event is twofold.

The *Aśokāvadāna* is again acquainted with a series of six, but actually mentions only four kinds: “the earth is made to tremble in six uncommon ways: the East goes up, the West goes down, the edge goes down, the centre goes up, and there is rumbling and trembling.”⁴⁸

Although the *Akṣobhyavyūha* includes a chapter on the sextuple earthquake,⁴⁹ the richest grammatical *tutti* is to the best of my knowledge the ending of the first chapter of the *Samādhirājasūtra*, according to the Vaidya edition (1959: 7, based on Nalinaksha Dutt’s edition of the Gilgit manuscript), and to the Gómez/Schopen edited translation of the Nepalese manuscript. It includes a threefold series of six verbs describing the earth’s quakes, three of which frequent in Pāli and Sanskrit Hīnayāna texts, the other three especially in Mahāyāna⁵⁰:

ayaṃ ca trisāhasramahāsāhasro lokadhātuḥ ṣaḍvikāraṃ **kampitaḥ**
prakampitaḥ samprakampitaḥ | **calitaḥ** pracalitaḥ sampracalitaḥ | **vedhitaḥ**
pravedhitaḥ sampravedhitaḥ | **kṣubhitaḥ** prakṣubhitaḥ samprakṣubhitaḥ |
raṇitaḥ praraṇitaḥ sampraraṇitaḥ | **garjitaḥ** pragarjitaḥ sampragarjitaḥ |
pūrvā digavanamati paścimā digunnamati | paścimā digavanamati pūrvā
digunnamati | uttarā digavanamati dakṣiṇā digunnamati | dakṣiṇā
digavanamati uttarā digunnamati | antādavanamati madhyādunnamati |
antādunnamati madhyādavanamati |

“[...] this world system, which contains three thousand times many thousands of worlds, in six ways shook, shook much and shook entirely. It trembled, trembled much and trembled entirely. It swayed, swayed much and swayed entirely. It moved, moved much and moved entirely. It rattled, rattled much and rattled entirely. It rumbled, rumbled much and rumbled entirely. In the east it sank down, in the west it heaved up. In the west it sank down, in the east it heaved up. In the north it sank down, in the south it heaved up. In the south it sank down, in the north it heaved up. From the ends it sank down, from the middle it heaved up. From the middle it sank down, from the ends it heaved up.”

L. O. Gómez, J. A. Silk 1989: 60 and 84 n. 25.

It seems that in northern India such a perception of the earth’s shakings was common during the colonial period. A witness of the earthquake of

⁴⁸ Transl. J. S. STRONG 1983/1989/2002: 199-200.

⁴⁹ Cf. J. DANTINNE 1983: 104 (“tremblement, grand tremblement, tremblement universel, secousse, grande secousse, secousse généralisée”).

⁵⁰ The same is to be found in the *Śuramgamasamādhisūtra*, in the *Mahāprajñāpāramitāsāstra*, and even in later texts such as the *Maitrisimit* or the *Mahāvvyutpati*. The stock phrase is absent in Filliozat’s unpublished translation, based probably on the Gilgit manuscript, with insertions from the Tibetan text (Filliozat MSS: 1-20), yet not from this *nidāna*-chapter (GÓMEZ/SCHOPEN 1989: 85 n. 25).

June 1819 confirmed: “rocking to and fro, or rising and sinking [...]; – when one foot was elevated, the earth either rose and met it, or sunk away from it in its descent.” Another witness endorsed the former testimony: “the earth under us seemed to rise and fall very considerably”⁵¹.

As for the sixfold quaking and its prodigious connection with meditational techniques and results, and the cosmological setting, it is startling to find all of them associated by a 9th-century Chinese Chan master, Linqi. Here is his text, in the eminently authoritative translation of Paul Demiéville:

“[q]uand vous avez une pensée de **doute**, c’est que vous êtes obstrués par la **terre**; quand vous avez une pensée **d’amour**, c’est que vous êtes submergés par l’eau; quand vous avez une pensée de **colère**, c’est que vous êtes brûlé par le **feu**; quand vous avez une pensée de **joie**, c’est que vous êtes emportés par le **vent**. Si vous êtes capables de reconnaître cela, vous ne serez plus actionnés par les objets, mais c’est vous qui partout vous servirez des objets; **surgissant à l’est et vous enfonçant à l’ouest, surgissant au sud et vous enfonçant au nord, surgissant au centre et vous enfonçant sur les côtés; marchant sur l’eau comme sur la terre, marchant sur la terre comme sur l’eau**. Et comment cela? Parce que vous aurez compris que **les quatre grands éléments sont comme un rêve**, comme une fantasmagorie. Adeptes, ce qui est là maintenant à écouter la Loi, **ce ne sont pas vos quatre éléments, car vous êtes capables de vous servir de ces quatre éléments**. Sachez voir les choses ainsi, et vous serez alors libres de vos mouvements.”⁵²

The story of Sumedha from the *Nidānakathā* (*Jātaka* I 25) was ably rendered into verses by Warren:

176. Now pondering these conditions ten, | Their nature, essence,
character, - Such fiery vigor had they all, | That all the worlds ten
thousands quaked.

calatī ravatī puthavī ucchuyantaṃ vā pīḷitaṃ |
telayante yathā cakkam evaṃ kampatī medinī ||

177. Then shook and creaked the wide, wide earth, | As doth the sugar-
mill at work; Then quaked the ground, as doth the wheel, | Of oil-mills
when they’re made to turn.

⁵¹ MACMURDO *et al.* 1823/1877: 99-100, respectively 123.

⁵² P. DEMIÉVILLE 1972: 83-84. See also C. KONTLER 2004: 254-255, who cites it, but misses the point (“en effet, pratiquement dans les mêmes termes que les auteurs du bouddhisme ancien, la vérité de l’intériorisation du réel”). The earthquake-based filiation of meditation and cosmology seems on the contrary irreproachable.

The sound of a sugar(cane) or oil mill as analogous to that of the earth's quake is a rare illustration of earthquakes in Buddhist literature. It extends the liquid imagery of the first cause to a microcosm of fluid-cum-solid movements. The earth herself is called *puṭhavi* and also *medinī*, but the translation compresses both terms, as it does for *uccha*-^o and *tela-yanta*, two kinds of mills (sugar and oil ones)⁵³. Noting and then comparing the terrific sound of the earth during an earthquake was not, in fact, self-evident: of the five senses, the earth subsumed for the most ancient Indian doctrines only tactility/taste, and only seldom sound as well (Gupta-Gombrich/Sharma 1996: 364 sq.).

IV. Meditation, Cosmology, Earthquakes

For the earliest Buddhists, the arrangement of exterior or interior space is regulated through mythology, ritual and meditation. In a magisterial contribution full of new vistas, Rupert Gethin wrote: "In general, traditional Buddhist cosmology as expounded in the Nikāyas and the Abhidharma must be understood as at once a map of all realms of existence and an account of all possible experiences" (Gethin 1997 [2005]: 195). The broad picture of the entire universe is *dhyāna*-qualified: cosmology *is* meditation. Every level of the cosmos belongs to a specific level of *dhyāna* that constitutes its main characteristic. There are first *dhyāna*, second *dhyāna* (and so on) cosmological levels, because all beings living at a specific level enter and are maintained by a specific level of meditation.

Let me go at least one step further: between the earthquakes, the meditation and the cosmology we have a twofold – and fairly systematic – connection. The earthquakes and the cosmology are strongly intertwined, as we are able to monitor the earliest seismological aetiology within the Indian Buddhist tradition. The cosmology, in the meantime, is strongly correlated to meditation – individual and collectively generic

⁵³ A most learned study by O. von HINÜBER (1971: 101 / 2009a: 782) includes a more literal translation ("Es bebt, es brüllt die Erde wie eine gepreßte Zuckerrohrpresse, wie das Rad einer Ölpresse so zittert die Erde"), and other non-Buddhist parallels as well. The passage is to be found in the *Buddhavaṃsa* II 168 and the *Buddhavaṃsa-aṭṭhakathā* of Buddhadatta, and Buddhaghosa tried to evaluate every element of the mill comparison, integrating it into a cosmological framework (*Visuddhimagga* 415.20 sq., ed. WARREN-KOSAMBI). For Buddhadatta (*Madhurattavilāsini* 114, transl. I. B. HORNER 1978: 163-164), *ucchuyanta* is compared with an earthquake that moves the earth "in six ways." "Moved means shook in six ways [...] How? It bent up from the east, bent down from the west," etc. (HORNER 1978: 164 and 85). On this formula, infrequent in Pali, see *infra*.

meditation. Do we equally have a link between earthquake and meditation?

The answers are affirmative. The first affirmative one is precisely the second cause of earthquakes described and briefly analysed before⁵⁴. However, it must be underlined that cosmology itself is put to test by both meditation and earthquakes. Yet, hopefully, that is not all.

To the best of my knowledge, there have been only incipient and unsystematic notes on a possible, though barely explained or understood, link between cosmology, *dhyāna*, and earthquakes. Essential here is a directly connected passage from the *Abhidharmakośabhāṣya* which, describing the imperfections (*apakṣāla*) of inferior *dhyānas* and their succeeding refinement, overtly compares:

*prathame hi dhyāne vitarka-vicāra apakṣālāḥ | te ca manasaḥ
paridāhakatvād agni-kalpāḥ | dvitīye prītir apakṣālā | sā praśrabdhi
yogenāśraya-mṛdu-karaṇād ap-kalpā |...| tṛtīye dhyāne āśvāsa-praśvāsāḥ
| te ca vāyava eva | iti yasyām dhyāna-samāpattau yathābhūta ādhyātmiko
'pakṣālāḥ tasyām dhyānopapattāu tathābhūto bāhya iti*

“In the first *dhyāna* thinking and reflection are imperfections; these are similar to fire since they burn through the mind. **In the second *dhyāna* joy is the imperfection; this is like water** since, by association with tranquillity, it makes the senses soft... In the third *dhyāna* out-breaths and in-breaths [are imperfection]; these are actually winds. In this way the subjective [*ādhyātmika*] imperfection in a *dhyāna* attainment is of the same nature as the objective [*bāhya*] imperfection in the corresponding *dhyāna* rebirth.”

Bhāṣya to Abhidharmakośa III:100cd, transl. Gethin 1997 [2005]: 203
cum n. 58.

[*apakṣāla*, cp. “défauts,” La Vallée Poussin 1925 [1971/1980], 5: 209]⁵⁵

⁵⁴ For a tentatively exhaustive treatment, see Ciurtin forthcoming.

⁵⁵ On Buddhist (mainly) Theravāda meditation, see especially D. K. SWEARER 1973: 435-455; C. PENSE 1977: 335-344; R. DUQUENNE 1978: 32-48; W. RAHULA 1980: 267-280; F. G. FOG 1994: 35-58; L. S. COUSINS 1996: 35-58; L. ZÄHLER 1990: 53-78; F. DELEANU 2000: 65-113 / 2005: 29-73; R. GETHIN 2004: 17-37 and 2006: 63-112. One can hardly accept today the speculations of WAYMAN 1965: 312-313, as well as the following commentary of the above-cited passage, were the previous insight seems immediately lost: “This would accord with the general Indian theory that it is precisely when natural forces are inimical that the spiritual victory is possible [...], so also when the *Dhyāna* is shaken by its excellent pleasure” (WAYMAN [1976] 1990: 84, again on 91).

V. Tranquil water: joy as imperfection

The comparison of joy and water in a meditation-*cum*-cosmology setting is not singular. In another type of commentarial literature, the beneficial qualities of water turn out to be that of *pīti*. In the *Dhammasaṅgaṇi-aṭṭhakathā* (*Atthasālinī*) 160-161, this association is common. There are five *pīti* (sometimes rendered by “zest”) in the *Visuddhimagga* of Buddhaghosa (143-144), a gradual series full of aquatic parallels *in crescendo*: minor (*khuddaka*-), momentary (*khaṇika*-), showering (*okkantika*-), uplifting (*ubbega*-) and all-pervading (*pharaṇa*-) *pīti*. This last one “is said to suffuse the whole body so that it becomes like a full bladder or is like a mountain cavern inundated with a mighty flood of water” (Gunaratana 1985/2002: 62 and Gunaratana 1988/2006: 15). This is by no means an isolated comparison in Pāli, as witnessed by a Chinese translation of the Sarvāstivāda *Satipaṭṭhāna-sutta* made in 398 CE and included in the *Madhyāma Āgama*. Here we come across a formula describing, with considerable repetitions, the contemplation of the body (associated with the establishment of mindfulness) in a way which is close to the Pāli variants:

“A monk makes the rapture and pleasure born of seclusion drench, moisten, pervade and fill his body; no part of his body is unpervaded by the rapture and pleasure born of seclusion. Just as a skilled bath man fills a container with bath powder and mixes [bath powder and] water into a lump, making water drench, moisten, pervade and fill [the lump] with no part unpervaded; so too a monk makes the rapture and pleasure born of seclusion drench, moisten, pervade and fill his body; no part of his body is unpervaded by the rapture and pleasure born of seclusion.

Nianchu jing, T 1.582b sq., transl. T.-F. KUAN 2008
(formula repeated in 148-150, 158-160).

The formulaic phrase “drench, moisten, pervade and fill” is, if not identical, then quite close to the Pāli of the *Sāmaññaphalasutta*: *abhisandeti, parisandeti, paripūreti, parippharati*: “drench, saturate, permeate and suffuse.”⁵⁶ It is remarkable, I should add, that both general themes of “concentration” and “insight” meditation (*samādhi* vs. *paññā*,

⁵⁶ See P. J. GRIFFITHS 1983: 57 *cum* 66 n. 7. In a review of P. J. GRIFFITHS 1986, J. W. DE JONG 1988: 162-163 *cum* n. 5 discussed passages of Sthiramati’s commentary on the *Triṃśikā* and from the *Samdhinirmocanasūtra*, which describe (with *paryupayoga*) the compactness of water.

saññā-vedayita-nirodha vs. *satipaṭṭhāna*, etc.) apply the same water imagery here, no longer in contradiction like in many other cases.⁵⁷

According to the *Dīghanikāya* commentary, *pīti* arises “causing the whole body to shake” (*Sv* I, 217.7-8), and the *Paṭisambhidāmagga* explores in greater detail⁵⁸ this quite peculiar type of “shaking of the body” (*Paṭis* I 84.35 sq.; 165.24-166.26). This thrill, which is clearly interior, expands through the worlds and shakes the palace of Sakka,⁵⁹ being thus interiorly and exteriorly a com-motion. There are other instances where an inversion through meditation is operated⁶⁰. The water *is* in fact immeasurable: in the second *jhāna*.

There are three elements responsible for the world’s destruction, and they are indicated by different Pāli, Sanskrit, Chinese and Tibetan sources in this order: fire, water, wind. They progress up to a superior *jhāna* realm and, as Gethin describes, “when the destruction is by water, the three realms corresponding to the second *jhāna* are also [as the sense sphere and form realms, destroyed by fire] included” (Gethin 1997 [2005]: 196). The fourth *dhātu* (the first, in fact, in many a list, a text, a canonical language) is absent from the list of world destructions, which confirms its distinctive status. If this were not so, then its destructive capacity would be merely the earth-quake. To progress on the path of meditation is analogous to the contraction (by destruction) of the world. The meditative monk coincides more and more with an axial cosmological moment of the world.

There are also other possible connections between cosmology, meditation and earthquakes. One such is the strong relationship established, for instance, between compassion, *karuṇā*, and *anukampā*, sympathy – an interpersonal move.⁶¹ It is extremely likely that the list of eights continues, in an artificial manner, with the enumeration of the eight assemblies immediately after the eightfold cause of earthquakes, but the

⁵⁷ One may still find the analysis of *Visuddhimagga* by P. GRIFFITHS 1981: 605-624 very helpful (see especially 613 sq.).

⁵⁸ Cited already by COUSINS 1973 [2005]: 121 and 126, and included amongst “the phenomena ancillary to visionary states.”

⁵⁹ Without any particular reason, quite the opposite (as the food ended), the king-parrot “was so happy and contended that the abode of Sakka began to shake,” cf. *Jā* III, 491-494; *Dhammapada-aṭṭhakathā* II.9 (284-285 PTS), cf. E. W. BURLINGAME 1910: 531.

⁶⁰ E.g. *Abhidharmakośa* II.71b-72, cf. LA VALLÉE POUSSIN 1923 [1971/1980], 1: 326 n. 1.

⁶¹ On which see M. MAITHRIMURTHI 1999, pp. 121-123 (with *anukampā* rendered as “Sorge/Fürsorge” and “Mitgefühl,” respectively, 1999: 121, 128 and 319). Also T.-F. KUAN 2005: 285-319.

other groups of eight – stages of mastery and stages of release – are classifications directly linked to meditation.

The *māravijaya* has frequently been considered specifically a psychological event in the history of Pāli studies, from the time of the first president of the Pali Text Society (especially in Rhys Davids 1877/1903: 37-38) to that, again, of the present one (Gethin 1997 [2005]: 23-24).⁶²

Many more cosmological similes are present in the subsequent *aṭṭhakathā* literature. The *Madhuratthavilāsini*, Buddhadatta's *aṭṭhakathā* on the *Buddhavaṃsa*, states: "In patience [the bodhisattva] was like the earth, in morality like the ocean, in concentration similar to Meru, in knowledge like the heavens. [...] He is said to be 'like the earth' from not shaking with all that he acquires" (transl. I. B. Horner 1978: 193-194).

As we have seen, the primeval, cosmological waters are seen as a support or fundament. The Abhidharma meditation will add the "fruit of fundament" (*pratiṣṭhā-phala*⁶³), associated with the earth element and seen in the same cosmological framework.

There is a meditational inversion of the greatness of the elements as embodied into the *jhāna* and *iddhi* experience⁶⁴. Not only in the *Visuddhimagga* of Buddhaghosa⁶⁵, but already in the *Majjhima*-, *Aṅguttara*- and *Dīghanikāya*, earth and water are two of the ten meditational "totalities" or "devices" (Pa. *kaṣiṇa*, Sk. *kṛtsna*⁶⁶). The following passage from the *Paṭisambhidāmagga* should be of help in order to understand the meditational implication of the *kaṣiṇa* technique:

"18. *He dives in and out of the earth as though in water*: he is naturally an obtainer of the water *kaṣiṇa* attainment. He adverts to earth. Having adverted, he decides with knowledge 'Let there be water'. There is water. He does the diving in and out of the earth. Just as men naturally not possessed of success (supernormal power) do diving in and out of water, so too this possessor of success (supernormal power) attained to mastery of will does the diving in and out of the earth as though in water. 19. *He goes on unbroken water as though the earth*: he is naturally an obtainer of the earth *kaṣiṇa* element. He adverts to water. Having adverted, he decides with knowledge 'Let there be earth'. There is earth. He goes on unbroken

⁶² Māra is an "être de fiction" for BAREAU as well (1979: 78 / 1995: 340).

⁶³ "[F]ruit de la base: le cercle d'eau (*jalamaṇḍala*) est fruit du cercle de vent (*vāyumaṇḍala*) et ainsi de suite jusqu'aux herbes, fruit de la grande terre (*mahāprthivī*)," transl. by L. de LA VALLÉE POUSSIN 1923-1931 [1971/1980], 2: 297.

⁶⁴ L. de LA VALLÉE POUSSIN 1923-1931 [1971/1980], 2: 326 n. 1; 6: 44.

⁶⁵ *Visuddhimagga* 125-126, on which see GETHIN 1998: 183 and KUAN 2008: 67.

⁶⁶ Note that *prthivī* and *kṛtsna* appear in *Atharvavedapariśiṣṭa* II 1.6.

water. Just as [...] this possessor [...] goes on unbroken water as if on earth.”

Bhikkhu Ñāṇamoli, A. K. WARDER 1982: 379-380⁶⁷.

Among the six *abhiññā* / *abhijñā*, the Buddhist “higher knowledges” obtained by the means of the fourth *dhyāna* meditation⁶⁸ and closely associated to Yogic extrasensory perception, the first one is responsible also for the production of earthquakes.⁶⁹ The fourth *jhāna* will be purposely considered as *abhiññā-pāḍaka*, a “base” which might be responsible for the production of earthquakes.⁷⁰ Not only the meditation, but also connected themes like remembering previous lives (*jāṭismara*) are associated with the earthquake.⁷¹

This general vision is assuaged by the very beginning of the *Lokapaññatti*, the Pāli “Description of the World,” which incorporates fragments not only from the lost Sanskrit *Lokaprajñapti* (extant in Chinese, in a translation of 558 CE, and in Tibetan), but also from specific Theravāda and Sarvāstivāda materials. Written in Burma in the 11th-12th c. (Denis 1977: *passim*), the first chapter is devoted precisely to the causes of the earthquakes, the *Lokapaññatti* being perhaps the one text of Greater India that opens with earthquakes⁷². However, this is due perhaps exclusively to the amalgamated recipe of its redaction, which one may even prefer to regard as a collation of short translations. It presents itself immediately after the concise general view of the world and it discusses the hells (Denis 1977: 1-5⁷³). Our *sutta* is presented in a much more concise form and includes noteworthy divergences.

⁶⁷ See also P. GRIFFITHS 1981: 610 and, for the difficulty of really penetrating the meaning of such passages, 618, “it is difficult [...] to find Theravādins able and willing to give instruction in the finer points of *kaṣiṇa* meditation.”)

⁶⁸ Commenting *Mahāvastu* I 165 Senart, Jones stated, ahead of time: “[t]he reference here is obscure, as there is no mention elsewhere of an earthquake on such an occasion. (...) there is never said to be a convulsion of the earth when the Buddha engages contemplation” (JONES 1949: 130 n. 5), an assertion which I think could be discarded on sufficient grounds.

⁶⁹ Not all modern commentators admitted it, as FRANCO (2009: 6) did.

⁷⁰ *Dīpavaṃsa* XIV.21, H. OLDENBERG 1879: 74 n. 21, transl. 1879: 180 (“[Your] *abhiññāpadaka* meditation, Venerable sir, has caused this great earth-quake.”)

⁷¹ On which see G. SCHOPEN 1983: 124 / 2005: 204.

⁷² O. von HINÜBER 1996/2001/2008: 183 (§395) mentions the “description of [...] earthquakes or other calamities.”

⁷³ Incidentally, K. R. NORMAN has emended the text in his review (read *bhikkhave* for *bhikkhāve*, *vāvā* for *vāya*, 1977: 1, ll. 7 and 16).

“Quelles sont les deux [causes]? Cette terre repose sur les eaux. Les eaux reposent sur l’air. L’air prend appui sur l’éther. Or donc, ô Moines, lorsqu’il advient que soufflent de grands vents [cosmiques], ces grands vents se mettant à souffler, les eaux s’ébranlent et la terre est ébranlée” (transl. P. MUS 1939: 125-126).⁷⁴

Neither Father Eugène Denis in his edition, nor other scholars have provided a comparative commentary. We can nevertheless supply the most relevant features: the *sutta* is spoken not in a *caitya/cetiya* named, for obvious reasons, Cāpāla, but in Vesālī/Vaiśālī, the city of the Vṛjī being not far from and more important than this shrine; it presents not a dialogue with one single well-known monk (Ānanda), but with many anonymous ones⁷⁵; it repeats, however, the presentation of the first two causes in exactly the same terms, in the classical order. It presents a similitude with the *Saddanīti*, the famous 12th century grammar of Pali by the Burmese monk Aggavaṃsa, where we read: “[w]hat, venerable ones, is the reason, what is the cause, for the manifestation of the great earthquake.”⁷⁶

It is rather intriguing that, in the same year (1979), André Bareau mentioned not two causes in a distinct version, but “three⁷⁷ or four” causes (in his analysis of the *Mahāparinirvāṇasūtra*), and took into account neither the version provided by the *Lokapaññatti* (in his review of Eugène Denis’ edition, where, in fact, he did mention earthquakes), nor the analysis of his predecessors Jean Przyluski and Paul Mus⁷⁸. We might suspect that, in his attempt to rescue a primitive form of this *sūtra*, especially when the alternation emerges between two and, respectively, three or four causes, Bareau tacitly draws upon Przyluski’s excellent analysis. This research was however complemented by Ernst Waldschmidt (1897-1985), in a series of contributions dating for the most part from between 1939 and 1961, and primarily in his edition of the Pāli,

⁷⁴ See also L. de LA VALLÉE POUSSIN 1923-1931 [1971/1980], 6: 44 (two stanzas); P. MUS 1939: 38 and 52.

⁷⁵ Already noted by BAREAU 1979: 80 / 1995: 342 for the corresponding Chinese *sūtra* of the *Ekottara-āgama* (T 125.753c-754a).

⁷⁶ See E. G. KAHRS 1992: 168.

⁷⁷ A possible souvenir of J. PRZYLUSKI 1918: 355 (again in J. PRZYLUSKI 1920: 61-64, 101)?

⁷⁸ Compare BAREAU 1979: 79 / 1995: 341 (“Les plus anciens [...] connaissent seulement trois ou quatre causes des tremblements de terre”) and his *BEFEO* review of DENIS 1977 (BAREAU 1979: 299, “Le chapitre I (pp. 1 à 5 de la traduction française) définit les causes des tremblements de terre”). No similar mention in Bareau’s *RHR* review, or in J. W. de Jong’s much more detailed *IIIJ* review.

Sanskrit, Tibetan and Chinese versions of the *Mahāparinirvāṇasūtra* (1950-1951).

**VI. Earthquakes substituted by seaquakes or flood:
the Sea Goddess and the Earth Goddess in Southeast Asia
(Cambodia, Siam, Thailand, Burma)**

What constituted terrestrial representation in the continental area of early Buddhism was slowly transformed into a watery one in maritime Asia, with a combination of terrestrial and maritime quakes in some sūtras describing the action – probably influenced by Purāṇic cosmology – of the Sea Goddess. One passage from the *Mahāvastu* will be illustrative: *mahāsamudre kimidaṃ*? “what is in the great ocean?” asked several classes of beings in the *Mahāvastu* when a seaquake appeared to correspond to the Buddha’s portentous activity, this time represented through the magnificent rescue of merchants:

“the great earth [*mahāprthivī*] shook violently [*saṃpracalitā*] and all the creatures of the earth roared loudly. Gods, snakes, yakṣas, and demons cried out: ‘What is in the great ocean?’ The **god of the great ocean** said: ‘The Bodhisattva along with the merchants was crossing the great ocean by ship, and a makara, a kind of fish, destroyed the ship’ [...] The Bodhisattva said to the merchants: ‘I will kill myself. Hold unto my body, for the god of the great salty ocean cannot bear a corpse [in its waters] for even one night.’ Holding his sharp knife, he destroyed his own body, and the merchants were straightaway deposited on the shore. Then the earth, with all its cities, towns, mountains, and forests, **shook violently**, and the ocean, along with the abodes of snakes and cities of Dānavas [i.e. the underworld], **trembled**. People, gods of forest and mountain, gods of the salty ocean, and snakes all become distressed and said: ‘What is this?’ The **goddess of the sea** said: ‘The Most Eloquent One, he whose nature is like that of an elephant [*gajasatvasāro*, lit. ‘he who has the essence of being of an elephant’], wandering for the sake of enlightenment, was crossing the salty ocean. But from inattention, I did not notice this. The best of men, whose ship was destroyed, accomplished [his quest] out on the ocean. He gave up his own dear life to save other men. Because of his magnanimity [*anubhāva*, lit. ‘power, majesty’], the earth with its oceans, Mount Meru, Guhyakas, cities of Dānavas, and abode of snakes shook violently’⁷⁹.

The Chinese versions are different, and this is perhaps attributable to the more maritime character of Chinese Buddhism. One of them, included in *T* 152, states: “[...] they encountered in their path

⁷⁹ *Mvu* III 471-475, cf. text and translation in LENZ, GLASS 2003: 209-212.

hurricane winds accompanied by lightning and thunder which shook the earth. The water spirits gathered like clouds and surrounded them on all four sides like the walls of a city. Their eyes emitted fire. The waves shot upward [high enough] to douse the mountains.”⁸⁰

Seismic or not, the violent manifestation of the water and oceans was reputedly dangerous for the early and later Buddhists. Even the most liberal Anāthapiṇḍika, whose donations included the most famous Jetavana, lost his buried treasures due to the action of waters.⁸¹

The protective activity of a kind of guardian deity of the sea, Mañimekhalā, is described in two canonical Pāli *Jātaka* (namely *Samkhajātaka*, no. 442 and *Mahājanakajātaka*, no. 539), and also in one of the fifty apocryphal *Paññāsajātaka*, before she becomes the heroine of a famous Tamil medieval poem⁸².

What is clear enough from these passages is that a seaquake, and any other violent manifestation of the ocean’s ecosystem, such as a hurricane, a thunder, storms and the like, were conceived as responding to a twofold cosmo-geography. The seaquake-like events are seen as powerful religious portents caused by Bodhisattva/the Buddha’s involvement or by a specific event of his religious career. At the same time, every disturbance caused by or intimated in the life of the aquatic element is naturally and strongly related to the earth. As in some of the most ancient Buddhist and Jaina cosmological views, the irregular movement of the ocean’s waters determines exceptional disturbances of the earth. Seaquakes and earthquakes are profoundly interrelated. And it is impossible to dissociate the Indian or Chinese instances and fragments on seaquakes and earthquakes, as discussed here, from a specific, though most difficult to scrutinize, memory of real events.

More relevant for our topic is the presence of the Earth Goddess in Southeast Asian Buddhism. As observed in 1965 by Padmanabh S. Jaini, “[t]his glorification of *pathavī* (Earth) is undoubtedly the most remarkable feature of the *Mahādibbamanta*,” a Cambodian, most probably late

⁸⁰ “The Scripture on Ending a Life to Rescue the Merchants” from the *Six Perfection Collection Sūtra* (*Liu du ji jing*, transl. by Kang Sen Hui), in LENZ, GLASS 2003: 213. Another one (from *T* 202), does not mention any sea-/earthquake. For references to these passages similar to those of the newly discovered Gāndhārī Dharmapada, see LENZ, GLASS 2003: 211-214.

⁸¹ See the *Khadiraṅgārājātaka* and the *Dhammapadaṭṭhakathā*, cf. G. TERRAL-MARTINI 1959: 609 (“il possédait un trésor de dix-huit koṭi [...] qui se trouvait enterré au bord de la rivière d’Aciravatī dans des jarres de métal. Au moment de la crue, sous la force du courant, un éboulement se produisit et les jarres qui contenaient le trésor furent entraînées toutes fermées et cachetées jusqu’au fond de l’océan”), and 614.

⁸² For his role in the *Samuddaghosajātaka*, see G. TERRAL 1956: 255-258.

medieval, *paritta* text. P. S. Jaini introduced a short description of Dharāṇī, the Earth Goddess described, perhaps exceptionally, in this Pāli work, and of the earthquake activity mentioned in Buddhist texts:

“As a Buddhist Goddess, she enjoys great popularity in Cambodia and Siam, but not, it seems, in India or Ceylon. She is known in Cambodia as Phra Thorni. Her image, a standing figure wringing her long hair, the floods pouring from which drown the hosts of Māra, is carved on the pedestals supporting the statues of the Buddha (in *bhūmi-sparśa-mudrā*) and is also found, in modern times, in the courtyards of temples and in public parks. The legend of Dharāṇī, as pointed out by Coedès, is unknown to the canonical texts and is peculiar to Cambodia and Siam. The earliest image of Dharāṇī is found on a stele of Angkor Vat.” (P. S. Jaini 1965: 63).

The reference to a 1902 contribution by Coedès reminds us of his later incursions into this Southeast Asian theme: most notably an analysis of the stele and the edition of the single medieval Pāli text, an earlier and much more illustrative one than the *Mahādibbamanta*: the *Paṭhamasambodhi*.⁸³ Nalini Balbir has studied more recently and more completely the composition of the *Paṭhamasambodhi* in interrelation with the *Jinālaṅkāra*: “[t]he passage where the goddess Earth (*Vasundharā vanitā*) wrings out her hair in order to inundate Māra’s army [...] is specific to the *Paṭhamasambodhi*, and appears to be deliberately so, as the version of the *Jinālaṅkāra* is in conformity with the classical depiction with the earth shaking, the terrestrial noise, and the roaring noise in the sky caused by a thunderbolt. Except for these few lines, the rest of the prose of the *Paṭhamasambodhi* is rather close to what can be found in the corresponding *Jinālaṅkāra-ṭīkā*.”⁸⁴ I would also suggest that the transposition of earth(quake) to water/flood/sea(quake) was possible especially because both variants have embodied codifications of merit’s vast quantity, which corresponds to some traditional Indian names of the Earth: *vasundharā*, “bearer of wealth,” or *vasudhā* “provider of wealth.”⁸⁵

⁸³ Coedès 1915: 39-46 and 1916: 117-122, complemented by Coedès 1968: 222-224, now translated into English in Coedès/Filliozat 2003. For the best analysis, see Balbir 2007: 340-342.

⁸⁴ N. Balbir 2007: 342; see also N. Balbir 2003-2004: 423-428. For the significance of an inundated Māra in the Thai *Māra Yuddha* and *Vessantara-jātaka*, see L. B. Bloss 1978: 174.

⁸⁵ For the Buddhist context, see again Buddhaghosa, *Visuddhimagga* IV.29 on earth-*kaṣiṇa*, commented upon in Gupta-Gombrich/Sharma 1996: 364-365, who mention the abundance of earth synonyms in the *Nighaṇṭu* (I 1: twenty terms), the *Amarakośa* (II 2.1: thirty-eight) and the *Rājanirghaṇṭa*, the *Śabdaratnāvalī* and

To do full justice to the history of Southeast Asian Buddhist studies, it should be mentioned that Chester Bennett, Paul Ambrose Bigandet and Henry Alabaster presented in their epochs versions of the Thai and Burmese earthquake/seaquake motif⁸⁶, which is studied again nowadays⁸⁷.

VII. Appendix: *Earthquakes in Buddhist Art*

An indisputable contrast of extreme stillness and tremendous quaking may be found not only in such canonical and postcanonical texts, but also in visual representations. No scholar, it appears, ever started to investigate potential depictions of earthquakes in Buddhist art starting from a philological, historical, or doctrinal inquiry; on the contrary, there are elements of iconographic programs and tentative concordances between texts and images in several contributions pertaining to the history of Buddhist art. Commenting upon figurative representations of topical episodes in the Buddha's biography, recent scholars sometimes decide to "leav[e] aside the earthquakes, which were not easy to render figuratively."⁸⁸ However, the tradition we study, as well as the traditions of our studies, recommend a somewhat different attitude. Metaphors like this Vidyākavartī's early 13th century Sinhalese *Butsarāṇa* – "to make stand still the elephants in rut as drawn in a painting" (Deegalle 1997: 195) – invite us to look for pictographic descriptions of earthquakes. In a celebrated essay, Paul Mus considered the Indian sculpture as a whole as a "cinéma solide" (P. Mus 1964: 21-34), incorporating time, movement and flow in static representations.

A rare illustration from the monumental *Old Burma: Early Pagán* of Gordon H. Luce and Ba Shin (**Plate I**) can but confirm the Buddhist comprehension of earthquakes as outlined above. This survival

the *Jaṭādhara* (no less than eighty). See also G. TUCCI 1954: 533-567; R. PANDEY 1970: 252-264; D. N. VAN 1993: 304-337.

⁸⁶ See e.g. Ch. BENNETT 1853: 31-33, 120-122; P. BIGANDET 1866: 281-282; H. ALABASTER 1871: 152-155.

⁸⁷ An overview in RAYMOND 1998: 113-127 and a description of contemporary Burmese ritual in Bras de la PERRIÈRE 2006: 209 *cum* 230 n. 27.

⁸⁸ M. SPAGNOLI 2005 [2007]: 338. See O. C. GANGOLY 1943: 1-11 (also on the *bhūmisparśmūdra*), and J. N. KINNARD 1999/2001: esp. 45 sq. Also J. F. ROCK 1937: "the earthquake [:] the heavens and the earth are depicted trembling, by wavy lines." A *dhāraṇī* Tantric Buddhist spell recently identified in a Prakrit inscription from the Maldives mentions the "earthquakes," having parallels in texts and traditions covering a huge part of Buddhist Asia (see J. GIPPERT 2004: 81-109, here 87: "I smash the 100,000 earth-quakes [*bhumikam(pa)*] into pieces.")

birders on the miraculous, as the entire region, and Pagán temple above all, is greatly exposed to earthquakes. Explaining the meaning of the unusually apprehensive assembly here represented, the Mon text underneath the image reads as follows:

“This is when the people of *Rammanagir* entertained (? invite) the reverend Buddha and (his) 40,000 saints [400,000 *arhats* in other sources]. Thereupon also the hermit *Sumedhapāṇḍit* grasps the Law. The earth quakes. Jars and pottered are shattered. The people fall down. The many worlds [? not included in the *erratum*. Perhaps “*arhat*,” or “multitude,” “universal assembly”] come and ask the reverend Buddha (*Dīpaṅkara*) what is going to happen to this world. The reverend One says ‘Nothing’. ‘After I prop[h]esied that he would become a hermit and (...), therefore he grasped the Law, and therefore the earth quaked.’ This is when the hermit *Sumedhapāṇḍit* grasped the Law, and all the Devas, Mahābrahmās, Nāgas, Suparṇas and Lokapālas (?) grant the boon that he should become a Buddha (...)”

G. H. Luce, B. Shin 1969-1970, 1: 318 §23,
erratum on 1: 444 included.

The specified source (*Khuddaka Nikāya*, *Buddhavaṃsa* 1-3) must be complemented by the similar passages from the *Jātaka*, and especially by the following one from the *Nidānakathā*⁸⁹:

178. Th’entire assemblage that was there | And follows in The Buddha’s train,
Trembled and shook in great alarm, | And fell astonished to the ground.
179. And many thousand waterpots, | And many hundred earthen jars,
Were one upon another dashed, | And crushed and pounded into dust
179. Excited, trembling, terrified, | Confused, and sore oppressed in mind,
The multitude together came, | And to *Dīpaṅkara* approached.

H. C. WARREN [1896] 1922: 29.

Compare Th. W. RHYS DAVIDS 1880: 26-27 / 1925: 110-111.

As for the versions of the *Sumedhakathā*, J. Matsumura argues more recently that they “are not really uniform as has been supposed, but have many discrepancies,” among which not only the presence or absence

⁸⁹ On which see the more recent M. R. WOODWARD 1997/2002: 51-53, and further the translation of the *Buddhavaṃsa* by S. COLLINS 1998: 578-592. The *Dīpaṅkarajātaka* of the Dharmaguptaka (preserved as usual only in Chinese) is evaluated in A. BAREAU 1966a: 1-16. *Sumedhapāṇḍit* reminds us of the entirely lost *Sumedhapāṇḍitajātaka* (no. 499), cf. O. von HINÜBER 1996/2001/2008: 55, §109. On the *Sumedhakathā* in Pāli Literature, see the comparative study of J. MATSUMURA 2008: 50 [1086]-58 [1094], which carefully compares all the nine extant versions.

of the earthquake theme, but also a mixture of presence (the earthquake unfolding as previously seen when Sumedha becomes aware of the thirty *pāramitā*) and absence (without an explanation, to the bewilderment of Ramma's inhabitants.)⁹⁰ This is the case for the *Mahābodhivaṃsa* (2, 1-10, 9). On the contrary, the *Thūpavaṃsa* knows different earthquakes associated with the rising of stūpa, but not one related to Sumedha.⁹¹ Is also possible to locate a seismic connection between Sumedha and Vessantara, as in the commentary of the *Dhammapada*: "in his existence as Vessantara he [Sumedha] bestowed mighty alms which caused the earth to quake" (transl. E. W. Burlingame 1921, 1: 194). The Burmese religious complex of Pagán helps us consequently to more closely date the substitution of earthquakes by flood or inundation, and the alteration of Prthivī's role.

As we shall see later on, Vessantara is one of the greatest seismic *dramatis personae* in Buddhist scriptures and commentaries, and the most important of those which have triggered debates about the occurrence and significance of Buddhist earthquakes, most notably from the *Milindapañha*, but also from Sanskrit works like the *Jātakamālā* of Ārya Śūra (4th c. CE).⁹²

Discovered and studied by Siegfried Lienhard, the Newārī version of his eminent Jātaka helps us locate a vivid portrayal of the earth's quake. The Newārī recurrent text in both scenes runs *bhūṣā bosyaṃ coṇa julo*, "Es erbehte die Erde in sechsfacher [°-mal] Weise," "the earth quaked in six ways," or "six times," an alternative with an extensively ignored history in Buddhist Sanskrit, Chinese and Tibetan texts. The second scene also mentions the showering of flowers⁹³. It is worth noting there the absence of humans from the quaking scene: only gross trees and a standard Nepali house without visual proofs of occupancy, as if to indicate the absence of losses, hence its auspicious character. We have here another decisive pictorial element which may be considered in the light of other textual and doctrinal sources. Below the

⁹⁰ J. MATSUMURA 2008: 51 [1087]: "[I]t would seem that the metrical version of *B[uddha]v[aṃsa]* II.vv.4-187] and the prose version in *B[uddha]v[aṃsa]-a[ṭṭhakathā]* comprise the legitimate and detailed *Sumedhakathā*."

⁹¹ J. MATSUMURA 2008: 53 [1089]-54 [1090]. Prof. J. Matsumura (Tokyo) was kind enough to offer us details about his interpretations of the relevant passages, including the possible influence of Mahāyāna (personal communication, 11/11/09).

⁹² Ārya Śūra, *Jātakamālā* 9.89-91, cf. P. KOROCHÉ 1989: 71-72. See, on Vessantara, R. F. GOMBRICH 1977, O. von HINÜBER 1998; also H. DURT 2004: 55 [216]-72 [199] and forthcoming.

⁹³ Cf. LIENHARD 1980: 56 and 58 (text), 64 and 67 (translation). The Nepalese text and representation have a different finale from the Pali version of this last *jātaka*.

house which is collapsing there is, in all likelihood, a representation of the effects of the earthquake upon the earth: the part furrowed with cracks probably represents the emergence of subterranean waters. We are inclined to believe that this late figuration is in direct connection with certain mythologems that crop up in different religious areas, and probably do so as a result of a reciprocal influence. In the *Yoga-Vāsiṣṭha* (IV 29.1 sq.), in the context of an Apocalyptic war marked by a different kind of seisms, the hills *smile*, a surprising act which designates the literally rattling action of the fighters confronting one another.⁹⁴ As Minoru Hara has shown while commenting on a passage from the *Śiṣupālavadha*, “[t]he mountain laughs with its caves [...]. In Kṛṣṇa’s march against the enemy, we read,

anāratam rasati jayāya dundubhau
madhudviṣaḥ phalad-alaghu-pratisvanaiḥ
vinīṣpatam-mṛgapatibhir guhāmukhair
gatāḥ parām mudam ahasann ivādrayaḥ

While Hari’s drum roared repeatedly for victory, it brought about **vehement echoes**, which induced lions to come out to the front of their caves. Then, the mountains looked as if laughing in utmost delight **with the caves as their mouth**, frequented by the lions which came out.
(*Śiṣupālavadha* 17.32)

Much more surprising is the presence of the same motif in Zoroastrian literature, again in a similar cosmological and eschatological setting, where the earth opens her mouth and quakes (*Zand ī Wahman Yasn* 4.57 and 64).⁹⁵ As for a more general historical-religious comparison,

⁹⁴ Commenting on the representation of “les collines au sourire éclatant,” M. Hulin hopefully adds : “le commentaire justifie cette étrange image en supposant que les collines, ainsi arrachées du sol par les guerriers divins et démoniaques, laissent voir en coupe les divers strates de minerais (équivalents à des rangées de dents, à des lèvres, à des yeux...) qu’elles recèlent dans leurs flancs.” Cf. M. HULIN 1979, p. 90 *cum* n. 1; also E. W. HOPKINS 1930: 68-87 and J. W. de JONG 1985: 397-400. In a fragment of the *Chaldean Oracles* with Psellus’ commentary, “la terra (χθών) latra” (162 Des Places / 36 Lanzi, see ed. S. LANZI, Milano, 2001: 95 *cum* 121).

⁹⁵ M. TIMUŞ 2009: 83-116 is the first study of earthquakes in Zoroastrian Pahlavi literature (for the corresponding passages, see 2009: 103). See also É. BENVENISTE 1964: 307-309; J. KELLENS 1977: 197-201. A careful comparative study of Indian (not only Buddhist) and Iranian (not only Zoroastrian) data is a desideratum. One of the effects of this unique *nunc stans* (as in the *Lalitavistara*) in the “flat earth” (on Iranian and Indian comparisons, see B. LINCOLN 1983: 136-153 and 1989: 38-50, which mentions the *Maitreyavyākaraṇasūtra*; other parallels in the review of C. GROTANELLI 1992: 81-84).

which includes the situation of earthquakes in Buddhism and Christianity, “[o]ne striking candidate [...] from the Lotus Sūtra is the motif of earthquakes enabling saints to rise from caves or tombs.”⁹⁶

Another illustration of the Buddha’s earthquakes is Central Asian and comes from the monuments explored by the celebrated German royal mission to Turfan at the beginning of the 20th century. The image was tentatively discussed by Albert Grünwedel (1856-1936) in 1912 and by Albert von Le Coq (1850-1930) in 1929, and subsequently certified by Herbert Härtel (1921-2005) in 1982. This is a depiction of the *parinirvāṇa*’s earthquake and is present in a mural painting from the Cave 205 (middle of the 7th c.?) at Qizil (Xingjian), which contains “a most unusual depiction of events in the life of the historic Buddha” (Eichenbaum Karetzky 2000: 36)⁹⁷.

VIII. *Integrating the earthquake into a work of art: Brâncuși’s project at Indore (1921-1939)*

The luminous pages offered to us by Paul Mus were not confined to Indian art, but attempted a comparison with the techniques of integrating time in contemporary art. A “solid cinema” seemed – still seems – to be the ultimate expression of an assimilation of movement into static works, and Indian or Buddhist art, as we have seen, does figure the quakes produced by the Buddha. This, however, is not everything, at least not in terms of an influence of Buddhist thinking, if not in those of a direct expression of Asian art. For there is a rare example, unfortunately a project only, that begun from the examples of Indian art and attempted to integrate the earthquake into a work of art: the art complex of Indore envisaged by Constantin Brâncuși (Brancusi), a sculptor of Romanian origin (Hobița, 1876–Paris, 1957) who fundamentally influenced the evolution of modern art.

Brâncuși had accepted the invitation of young Mahārāja Yeshwant Rao Holkar Bahadur (1908-1956) of Indore to build a monument in memory of his mahārānī. The stakes were not merely those of sculpting or composing an ensemble of sculptures in an Indian town, an extremely earthquake-prone one at that⁹⁸, but, for the Franco-Romanian master, those of erecting a temple

⁹⁶ See J. DUNCAN M. DERRETT 2000: 74 and J. DUNCAN M. DERRETT 2002: 461.

⁹⁷ The painting is now in the Museum für indische Kunst of Berlin (III 8437). Cf. A. GRÜNWEDEL 1912: 162 sq.; A. von LE COQ 1929, vol. 7: 21; H. HÄRTEL 1982: 62 (catalogue no. 24) and most recently P. EICHENBAUM KARETZKY 2000: 36 *cum* 58 n. 100 (without reproduction); Härtel “identified the royal couple, and the earthquake (in the lower right) that took place when the Buddha died.”

⁹⁸ On Indore geological position, see S. CHANDRASEKHARAM 2007, p. 32, Fig. 4 (on a “Axis of Gravity High”).

and even organising the space and edifying it in its very nature of space. Judging by the sketches and testimonies left by Brâncuși, this building, called the “Temple of Deliverance” – never finished –, was to show itself to the world without any windows, with a single, *subterraneous*, entrance, and with only one other opening, which broke through the roof, allowing the midday light to shine on a *Golden Bird* – a sculpture which was indeed finished in the 1930s. The project of including the earthquake into the very life – and character – of a work of art had already been made known to the public when Ezra Pound published a brave article about Brâncuși in the autumn 1921 issue of *The Little Review*.⁹⁹ Brâncuși would travel to India in the late 1930s, to Indore and Bombay – he would say, simply and thoroughly, that he was back home! – yet the absence of the Mahārāja (in those days he was busily hunting tigers) and the beginning of the war were to turn everything into a much less clear picture than we might wish.¹⁰⁰

In a sculpture from his first creative period preserved in Bucharest, Brâncuși defined what, in a traditionally Romanian manner, was called the “wisdom of the earth” (*Cumințenia pământului*), the absolute contrary of its seismic activity. Simply letting the matter be, in a sense that was intolerable to the art that preceded him, Brâncuși saw the earth as endowed with a plurimillennial calm, in its quality of a support and a witness. The Indore project is consequently the most surprising of all, as here Brâncuși wanted to *integrate the earthquake* into a work of art, and to do so on Indian soil. Fashioning his “temple” meant according himself with the earth’s own intimacy, in all its manifestations. Long before any technical and communal evaluation of the energetic potential attached to an earthquake, Brâncuși addressed an artwork to it, *collaborated* with the earthquake and defined it, in attendance, *as the co-author* of the monument, as if to demonstrate in an entirely unexpected manner that there was no autonomous matter, nor any form of art “excepted” from physical reality, and that the autonomy of the modern ego was merely illusory in contrast to the earthquake’s participation to the artist’s own work: the earthquake would thus transform without destruction and would change the monument only to magnify it, metamorphose it, diversify it, and project it into another, deeply innovating, rapport with time and matter.

Profoundly attached to the truthfulness that any natural matter and material reveals, Brâncuși excelled in his plan, and managed to do away

⁹⁹ It was a first thematic issue on contemporary artists, and there Pound was pointing to the novelty and exceptional quality of Brâncuși’s work. In a letter dated January 1922, Pound speaks of Brâncuși as of an artist who “has created a universe, a *cielo*” of Dantean extraction. Pound defined the temple as a work capable of being *upheaved* or *upturned* by an earthquake, transformed but under no circumstance destroyed.

¹⁰⁰ Some details in V. G. PALEOLOG 1988: 69-73 and J. RUSSELL 1978: C20.

beyond recall with the transgeographic and plurimillennial idea of the “socle,” the base, the pedestal – in their quality as an interregnum for the work of art. The earth in its most irreconcilable form and light in an exemplary *épanouissement* met, for Brâncuși, in the fundamentally cosmogonic model of the turtle. This model of space – the tortoise shell, which the Temple of Deliverance might have resembled – was not only the most apt: it was, what is more, a living model, in that it was natural, and it represented a solution of nature itself, the shell also a macromicrocosmic form with countless reverberations in Asian art and thinking. The possible dualism and the adjacent tension are dismissed in one sweep, for such an art as that embodied by the Indore project no longer contradicts matter in any way, and its monumental character is susceptible to collaborate with the exception which, in the case of the earth’s property of stability, is its trembling.¹⁰¹ Even more so than in the case of the execution of the *Endless Column*, countless times considered and again embarked upon, Brâncuși is attuned to the tonality of material reality (including the future one), and his megalithism gives him access to religious experiences for a long time inaccessible, at least for European artists. His visits to Musée Guimet (especially in 1909) and his closeness to Indo-Tibetan Buddhism (Brâncuși had been an avid reader of Milarepa) were to come to fruition into an unforeseen horizon, sublimated or vanished in what Eliade, among others, called the “enigmatic sterility” of his last years.

IX. *General observations.*

As usual, and perhaps even more than usual, every clarification coming from the immensely learned Buddhaghosa, more than an Origen of Buddhism, is illuminating. He reminds us that Buddhist earthquakes are decipherable only from within, a fact that testifies for the impact of meditation: “*This quaking has been going on right up to present times, but the rise and fall [of the earth] are not noticed because of its thickness.*”¹⁰² This earthquake is not a simple quaking of the earth. As there is (firm)

¹⁰¹ A certain anticipation of this may be discerned in the technique of protecting tall monuments in ancient India, particularly the Aśokan pillars: “The stone shafts of Aśokan pillars are stepped back with a circular edge at the top. This enabled the shaft to be socketed into the underside of the capital. This would have provided extra security for the heavy stone capitals in an area bordering the Himalayan earthquake belt,” cf. J. IRWIN 1975: 638 n. 28.

¹⁰² Y.-G. AN 2003: 98, italics mine. One would think at the traditional Abhidharmic inconceivable dimension of the frequency by which the material elements arise and cease (sometimes calculated at $10/17^{21}$ per second, cf. *BSOAS* 27 [1964]: 182).

earth without any quake, there is also quake (prodigious but benevolent) without any earth. Like John Donne's valedictory intuition, Buddhist earthquakes forbid mourning, as they discover, in a way specific to Buddhist thought and dependent on its meditational techniques, the combined superlative of impermanence and non-violence, character of what seems to be only an apocalyptic, essentialized and destructive quality in other Asian and Mediterranean religions. Much more, however, needs to be done towards discerning "les idées telles qu'elles furent pensées avec toutes leur harmoniques" (L. de la Vallée Poussin 1925: xi). A passage from *Mahāvastu* is perhaps the best Indian illustration of the Buddhist earthquake:

"There was something thrilling in this quaking, something beautiful, merry, gleeful, amiable, exhilarating, admirable, cheerful, assuring, graceful, lovely, gladdening, causing no misgiving, no fear. For while the earth quaked, it destroyed no life whatever, whether animal or plant."

Mahāvastu I 206-207 Senart (Jones 1949: 164).

Even forgotten nowadays, this was the insight of the first Asian scholars who combined, in early 19th century, the discoveries of history and philology and of geography and geology. Julius (later on Jules) Klaproth (1783-1835) was the first, it seems, to describe the causes of earthquakes according to the sources, and it is worth noting that the Chinese materials at his disposal in the 1830s already mention indeed eight causes, but with some major changes: their order is perverted (most importantly: the 2nd becomes the 7th); it lacks, first, only the cause which introduces the "Sūtra of earthquakes" in all Pāli and Sanskrit texts still extant, and it lacks also the "Turning of the Wheel;" it instead includes another two, namely *bhikṣu*'s *ṛddhi* and *deva*'s activity; in the 8th position it mentions other connected calamities. Another addition by Klaproth mentions that "the [Chinese] Buddhists admits [sic] six moments in an earthquake: the beginning of the motion, the augmentation of its intensity, *the overflowing of the waters*, the true quaking, the noise it occasions, and the vibration it follows".¹⁰³ Direct echoes are to be found almost at the same time in the crucial works of both Eugène Burnouf (1801-1852), especially in his magnum opus on the history of Indian Buddhism,¹⁰⁴ and Alexander von Humboldt (1769-1859), in his writings on Central Asia (1843) and in his *Kosmos* (1845):

¹⁰³ J. KLAPROTH 1836: 217 (*italics mine*).

¹⁰⁴ E. BURNOUF 1844 [1876]: 79-84, first modern translation from the *Divyāvadāna* (XVII, 200-210).

“Comme Khotan et le pays au Sud de la chaîne volcanique de Thian-chan était longtemps et très-anciennement la métropole du Bouddhisme, il ne faut pas être surpris de voir les sectateurs de Shâkya-mouni si occupés dans leurs écrits ‘des 6 moments et des 8 causes des tremblements de terre’. Ils ne l’attribuent pas seulement (*Foe-koue-ki*, p. 217) à une cause physique très compliquée, ‘à une roue d’acier à reliques dans l’intérieur de la terre, propageant le mouvement à des couches superposées de vent, de l’eau et de feu, mais aussi aux trop fréquentes essais d’incarnation des saints (*Bodhirattwar* [sic]).¹⁰⁵

When comparing religious themes of such resonance, I will then argue, we must pay attention to the disruptions in the field after the partial failure and complete disappearance of all generalist scholars in the comparative history of religions, those who first and foremost contributed to the very idea of comparison. The systematic phenomenology of religion systematically ignored one of the most powerful resources for distinguishing precisely what is *tremendum* in all numinous activity. As for this case, the fact is also due to the lack of comprehension of Buddhist earthquakes in nearly all the history of Buddhist studies in the West. The single existing comparative discussion of earthquakes is the now antiquated synthesis of the learned French seismologist Comte Fernand de Montessus de Ballore (1851-1923). His “période anthropomorphique des hypothèses sismiques” is strictly an illusion, albeit a persistent one, to be shaken off before engaging in a completely fresh examination of Buddhist data inviting of comparison. Romantic, positivist or expressionist worldviews, or little fragments of them combined, not exceptional to many Buddhist scholars (to say nothing of the “Orientalist”’s presuppositions), can but obscure the logic of earthquake narratives and the earthquake’s Buddhist meaning. Earlier or later on, diffusionist or deconstructionist methodologies of comparison in the history of religions, even supported by a certain earthquake-like imagery impossible to neglect, have contributed only too little to our understanding, or have indeed obscured the problem.

Cullings from the religious reactions to the December 2004 Asian tsunami and the massive India-*cum*-Pakistan earthquake of October 2005 will complete my inquiry through chronological comparison.¹⁰⁶

¹⁰⁵ A. HUMBOLDT 1843: 108-109 and also A. HUMBOLDT 1855-1859: 614. Cf. A. HUMBOLDT 1845: 493, already with a mention to “unserem spät veralteten geologischen und magnetischen Mythen.” For a more complete analysis, see E. CIURTIN forthcoming §a.

¹⁰⁶ See A. SHARMA 2001: “according to the more fatalistic version of karma, the suffering caused by the earthquake would be present-day payback for the victims’ past misdeeds. According to a more Buddhist version, however, only a Buddha’s

Installed as a dominant perception only after the Lisbon (or rather the European) earthquake of 1755, the newly coined concept of “seismic risk”¹⁰⁷ is the most recent and the most opaque solution to collectively understand earthquakes in a comparative perspective. Judeo-Christian apocalyptic imagery, popularized also through apocrypha, pseudepigrapha and folklore, becomes a vulgate in Western historiography, with many consequences for our readings of other religious traditions. When applying, by (inherent) comparison, our unquestioned limits of comprehension to concepts like that of “nature,” “earth,” and “social risk,” no matter how interdisciplinary they pretend to be, it will in the end be easier to argue that Buddhist earthquakes are, from a strictly seismological viewpoint, not earthquakes at all.¹⁰⁸

insight could determine whether the actual earthquake was a purely natural event, or in the nature of a moral event, involving punishment for bad karma.” Such comments remind us of the most notable modern disagreement regarding earthquakes in India. After the Bihar 1934 earthquake, Gandhi declared: “[a] man like me cannot believe that this earthquake is but a divine chastisement.” In a statement published at the same moment (*Harijan* of February 2, 1934), he added: “I share the belief with the whole world, civilized and uncivilized, that calamities such as the Bihar one came to mankind as a chastisement for their sins. I regard untouchability as such a grave sin as to warrant divine chastisement.” Not without verifying if this was indeed Gandhiji’s position, Tagore criticized “this kind of unscientific view of things.” Gandhi declared again: “[t]o me earthquake was no caprice of God nor the result of a meeting of mere blind forces. We do not know all the laws of God nor their workings. [W]e do not know the law or the laws fully, and what appears to us as catastrophies are so only because we do not know the universal laws sufficiently;” and, on March 15, 1934, after travelling to Bihar: “[i]t would be deplorable if this earthquake turns us to mendicants. [...] God has Himself sent us *this gift*. We must accept it as a gift from Him, and then we shall understand its meaning, what is that meaning. It is this, that untouchability must go, that is to say, nobody must consider himself higher than other. If we can understand these two things, this earthquake will be *turned into a blessing*. At present we count it as a sorrow, and no wonder when we see these fair fields and lands devastated. But I pray to God that He may give us strength *to make a blessing out of this destruction*” (italics mine). Commenting upon this difference of opinion, D. M. Datta wrote from Patna in 1936: “it is more than a mere chance coincidence to discover that centuries ago an exponent of Indian atomism cited ‘earthquake’ as an illustration of the work of the moral law of *adṛṣṭa* in nature.” See the report of the “Relief Commissioner” W. B. BRETT 1935; Ch. F. ANDREWS 1935; D. M. DATTA 1936: 228; S. R. BAKSHI, R. CHATURVEDI 2007: 202; E. CIURTIN forthcoming.

¹⁰⁷ See the brilliant history of earthquake’s perception in the Western world, by G. QUENET 2005.

¹⁰⁸ I would like to thank Professors Nalini Balbir (EPHE, Paris), Kunal Chakrabarty (Jawaharlal Nehru University, New Delhi), Hubert Durt

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http://www.sub.uni-goettingen.de/ebene_1/fiindolo/gretil.htm
- [J]PTS [Journal of the] *Pali Text Society*, London, Oxford, Lancaster.
- MLBD MotiLal BanarsiDass Publishers Private Limited, New Delhi etc.
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Illustrations

- I. Sumedha (Burma) – II-III. Vessantara (Nepal)
 – IV-V. Earth Goddesses (Uttar Pradesh & Bihar, India) – VI. Earth Goddess (Turkestan)
 – VII-VIII. Buddha and the Earth Goddess (Thailand)

I. Earthquake after Sumedha grasps the Law, in front of the Buddha Dīpaṃkara. Earthquake scenes from Nagayōn (Pagán). Burmese mural painting from the Eastern corridor, dated c. 1090 CE, with Mon legend. 5,4 x 7 ft. *Ap.* G. H. LUCE, B. SHIN 1969-1970, 3: Plate 204a-b.

II. Earthquakes from the Newārī *Vessantara-jātaka*: 1. Viśvantara and his wife Madrī leave the city of Vidarbha, with their two children Jalinī et Kṛṣṇājini. Dated 1838 CE. *Ap.* S. LIENHARD 1980: 143 (Tafel XI, scene 35).

III. Earthquakes from the *Vessantara-jātaka*: 2. Vessantara gives away his wife to the Brahman illustrating the perfection of giving (*dānapāramitā*). *Ap.* S. LIENHARD 1980: 211 (Tafel XXI, scene 68).

IV. Two Earth Goddesses, one with a pot, on a Bodhgayā stone sculpture representing the Buddha in *bhūmisparśamudrā*. Mahābodhi Temple, Bodhgayā, ca. 7th c. *Ap.* J. LEOSHO 2000-2001: 68.

V. Two Earth Goddesses on a Sārnāth pedestal representing the *bhūmisparśamudrā*. One of them carries again a pot, depicted here in a different position. Sarnath Museum, ca. 7th c. *Ap.* J. LEOSHO 2000-2001: 70.

VI. Earthquake portrayed in Qizil (Maya Cave, Site II: legend of King Ajātaśatru): “even the earthquake is shown by the collapsing of Mount Meru.” *Ap.* A. GRÜNWEDEL 1912 and H. HÄRTEL 1982: 87, Fig. H.

VII. Thai Earth Goddess, Nāṇ Braḥ Dharanī, testifying to the Buddha's *bhūmisparśamudrā* and inundating the Māra's army. Bronze pedestal, 12th-13th c. [?], 10,2x35,6 cm. Private collection, Suphanburi, Thailand. *Ap.* H. L. WOODWARD JR. 1979: 76.

VIII. Earthquake transformed in inundation. The Thai Earth Goddess Thorani witnesses to the Buddha. By wringing her long hair, she liberates the waters that represent his previous merits, and thus inundates Māra (on the right, vanquished, in a respectful attitude). Modern mural painting from Northern Thailand. *Ap.* J. P. FERGUSON, C. B. JOHANSSON 1973: 650.

NAGAYŌN CORRIDOR PAINTING. THE EARTHQUAKE.



I. Earthquake after Sumedha grasps the Law, in front of the Buddha Dīpaṃkara.



IV. Two Earth Goddesses, one with a pot, on a Bodhgayā stone sculpture representing the Buddha in *bhūmisparśamudrā*.



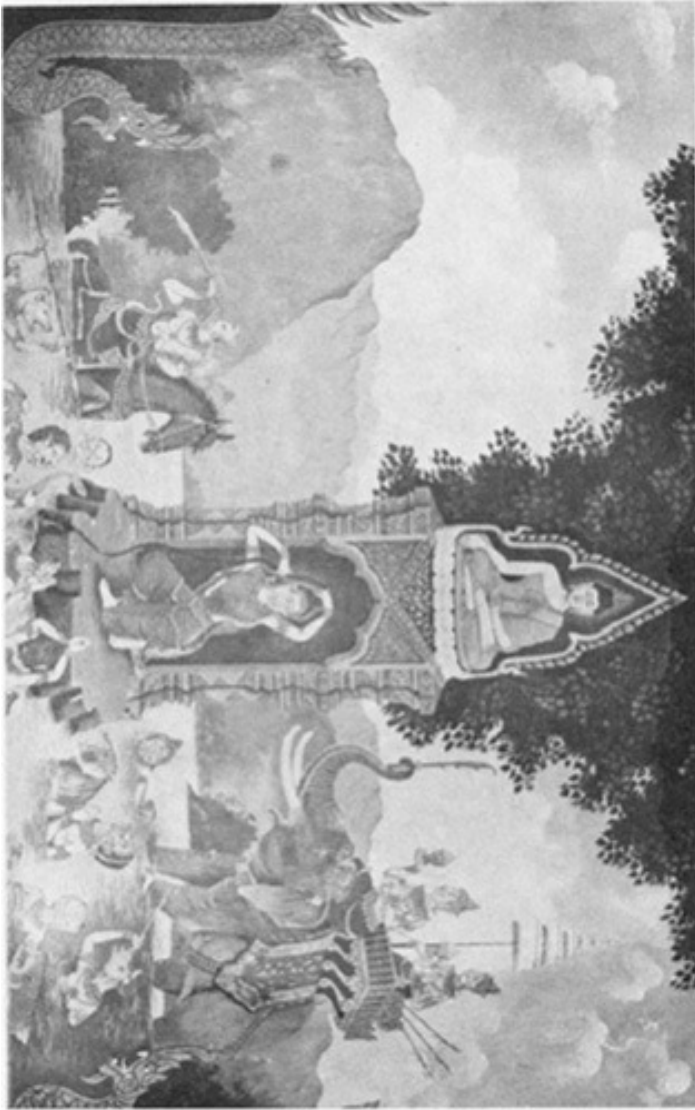
V. Two Earth Goddesses on a Sārnāth pedestal
representing the *bhūmisparśamudrā*.
One of them carries again a pot, depicted here in a different position.



VI. Earthquake destroying Mount Meru
(Qizil, Maya Cave, Site II: legend of King Ajātaśatru).



VII. Thai Earth Goddess, Nāṇ Braḥ Dharanī,
testifying to the Buddha's *bhūmisparśamudrā* and inundating the Māra's army.



VIII. Earthquake transformed in inundation.

The Thai Earth Goddess Thorani witnesses to the Buddha.

By wringing her long hair, she liberates the waters that represent his previous merits, and thus inundates Māra (on the right, vanquished, in a respectful attitude).



II. Earthquakes from the Newārī Vessantara-jātaka:

1. Viśvantara and his wife Madrī leave the city of Vidarbha,
with their two children Jalinī et Kṣṇajinī.

THE BUDDHA'S EARTHQUAKES [I]



II bis. Detail of II.



III. Earthquakes from the *Vessantara-jātaka*: 2. Vessantara gives away his wife to the Brahman illustrating the perfection of giving (*dānapāramitā*).

THE BUDDHA'S EARTHQUAKES [I]



III *bis*. Earthquake. Detail of II.

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SOMMAIRE (5) | CONSPECTVS SIGLORVM (7) | TO OUR READERS (11)

E. CIURTIN, *In memoriam Arion Rosu (1924-2007)* 13

Ionuț Daniel BĂNCILĂ, *Manichaean Entomology and Spontaneous Generation* 21

Anna CAJOZZO, *Remarques sur la structure des cieux dans le Mi'rah Nâmeh de la BNF* 41

E. CIURTIN, *The Buddha's Earthquakes [I]. Earthquakes and Seaquakes in Buddhist Cosmology and Meditation, with an Appendix on Indian Art* 59

Thomas J. ZUMBROICH, Analyn SALVADOR-AMORES, *"When Black Teeth Were Beautiful": The History and Ethnography of Dental Modification in Luzon, Philippines* 125

Daniela DUMBRAVĂ, *Nicolae Milescu in Asia Setentrionale (1675). Preliminari alla sua missione diplomatica presso la corte imperiale dei Qing* 167

Ionuț Daniel BĂNCILĂ, *Christian Sogdian Literature – An Overview* 233

Andrei OIȘTEANU, *Narcotics and Hallucinogens: Scholars From the Romanian Territories Travelling to the East (Milescu, Cantemir, Honighberger, Eliade)* 263

Joseph OLEARY, *Emptiness and Compassion. Review Essay on L. VIÉVARD, Vacuité (śūnyatā) et compassion (karuṇā) dans le bouddhisme Madhyamaka (Paris: De Boccard, 2002)* 287

Daniela DUMBRAVĂ, *Johan G. Sparwenfeld e Nicolae Milescu (Mosca, 1684). Rapporti diplomatici, scambi d'informazione e convergenza delle fonti (Ulla BIRGEGARD, ed., J. G. Sparwenfeld's Diary of a Journey to Russia 1684-87, Stockholm, 2002)* 297

Front cover: earthquake from the *Vessantara-Jātaka* (ap. S. LIENHARD, *Die Legende vom Prinzen Vissantara. Eine nepalesische Bilderrolle*, Berlin, 1980, p. 143).

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