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# La nature pense-t-elle ?

6-8 Juin 2019

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Unesco : 125 Av. Suffren 75007, Métro Ségur ; MCJP : 101 bis, quai Branly, 75015, Métro Bir Hakeim

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**Accès ouvert à tous, à l'UNESCO sur inscription**

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L'objectif de cette rencontre interculturelle et interdisciplinaire Japon-France est d'explorer de façon critique et ouverte ce que nous appellerons « les intelligences de la nature ». Des chercheurs en sciences humaines et en sciences naturelles, tous acteurs-praticiens de la recherche contribuant à redéfinir et à renouveler les approches de la Nature, délivreront leurs visions de la question et débattront avec un large public.

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## Argument

Pour saviens, et l'époque moderne de l'Occident, qui dit « pensée », dit « pensée réflexive », dit « sujet pensant », dit séparation ontologique nette et hiérarchisation des formes du vivant, spécificité et supériorité de l'intelligence humaine. Selon ce paradigme, les êtres de culture (les humains) « font », fabriquent et signent tandis que les êtres de nature (les non-humains) « sont », s'adaptent et subissent. Or, depuis presque une centaine d'années avec les travaux pionniers de Jakob von Uexkül, Watsuji Tetsurô, Thomas Sebeok, d'autres paradigmes que celui de la modernité occidentale ré-affirment et démontrent l'intime continuité et l'entrelieu "Aida" entre les différentes formes du vivant et du non vivant. Cette constellation de penseurs et de praticiens -acceptant l'unité et la diversité des formes de nature-, contrevient à la pensée dominante et sécante de la science positive.

En nous fondant sur une pensée moniste, relationnelle et phénoménologique empruntée à Nishida Kitarô, Imanishi Kinji et Augustin Berque d'une part, et d'autre part aux chercheurs les plus originaux de l'anthropologie (André Leroi-Gourhan, Philippe Descola, Tim Ingold), de la psychologie (James Gibson, Edwin Hutchins), de la philosophie (Yamauchi Tokuryû, Jacques Derrida), cette rencontre constituera l'occasion unique de réexaminer les questions de continuité et de spécificité des différentes formes de vivacités sur la base des travaux les plus actuels en la matière. Nous mobiliserons ceux qui osent approcher non seulement « l'intelligence rationnelle », mais aussi « les intelligences sensibles » des êtres vivants, végétaux ou animaux, ou le plus souvent, êtres composites et hybrides. Que serait une mousse sans son support minéral ? Un champignon sans ses hôtes aériens et sous-terrains ? Ou comment existerait un mammifère sans son cortège bactérien et parasitaire qui le définit tout autant que ses neurones ?

L'accent sera ainsi mis sur les formes collectives et distribuées de cognition et sur leurs différents modes d'existences réelles. L'éthologie, la physiologie végétale, l'écologie, l'agronomie, l'anthropologie, la philosophie, ... seront bien évidemment embarquées dans le débat, de façon tout à la fois exigeante (en ne détachant pas l'animal de son milieu de vie); ouverte (en ne tentant pas de hiérarchiser ses comportements, des plus simples aux plus complexes); et en regardant comment l'être s'exprime dans tel ou tel contexte, en présence de tel ou tel acteur ou actant.

Ces nouvelles formes de compréhension, mais surtout, de co-existences que l'Occident est en train de redécouvrir via l'anthropologie, l'éthologie et la philosophie, nous amènent aussi à aborder la question des droits que nous pouvons octroyer à la Nature et plus généralement la question des représentations et des porte-parole de la Nature ; qu'il s'agisse de montagnes, de fleuves, de communautés animales, d'espèces ou d'individus. Comment vivre en intelligence avec des sensibilités et des modes d'existences non-humains ? Comment contribuer à une co-existence durable entre les multiples formes de vie ? Selon quels modèles ? Selon quels principes ? Ceux que nous pensons voir à l'œuvre dans l'évolution sur des dizaines ou centaines de millions d'années ? Ceux de la modernité et de la globalisation ? Ou ceux, que nous tentons d'activer depuis des cosmologies locales, en rupture avec l'hégémonie d'une nature universelle et prédéfinie ?



## (ACTE I)

6 June, UNESCO Salle IX

# MILIEU ET ENVIRONNEMENT

9h Accueil du public

9:30 – 9:40 Mot d'ouverture : Frédéric JOULIAN (EHES)

9:40 – 10:40 Conférence introductive : Augustin BERQUE (EHES, Mesology)

### *La nature pense-t-elle l'évolution ? (自然は進化を考えているのか?)*

While, on account of the number of possible protein combinations, Neo-Darwinism is a thematically unable to explain evolution through the sole mechanistic alternative of randomness (mutation) and necessity (natural selection and statistical laws), Imanishi Kinji's antidarwinism is equally unable to explain evolution, if not by invoking a mysterious "course" followed by the species as such. One relates these two antithetic theories to, respectively, the Aristotelian logic of the identity of the subject and the Nishidian logic of the identity of the predicate, and, through a sublation of these two logics into /trajective chains/, proposes a mesological hypothesis for interpreting the problem of evolution, implying a certain subjecthood of nature itself.

Augustin BERQUE, b. 1942, a French geographer and orientalist, is a retired director of studies at the École des hautes études en sciences sociales, Paris, where he taught mesology (Umweltlehre, fûdoron). International Cosmos Prize-winner 2018, he was in 2009 the first Westerner to receive the Fukuoka Grand Prize for Asian cultures. Among his books : *Poétique de la Terre. Histoire naturelle et histoire humaine, essai de mésologie*, Belin, 2014 (*Poetics of the Earth*, Routledge, 2019). Among his translations : IMANISHI Kinji's 『主体性の進化論』 (*La Liberté dans l'évolution. Le vivant comme sujet*, Wildproject, 2017).

[10 min. break]

Chair : Frédéric JOULIAN (EHES, Anthropologie, Primatologie)

10:50 – 11:30 Yoann MOREAU (Mines ParisTech/Research Institute for Humanity and Nature, Anthropologie)

### *Une pensée pour la nature - A Thought for nature?*

Contemporary anthropology strongly recalls that the distinction between nature and culture is not a reality of the experienced world but one of the many philosophical

fictions allowing to study it (Latour 1991). Dualism is only one of the great anthropological options for understanding and give meaning to what surrounds us (Descola 2005). Equally consistent perspectives are possible, which allow to shift human cognition upon other aspects, to generate other values and to form new technics and languages (Moreau and Kaufmann 2018). By remodeling the theoretical landscape of living things, mesology also offers a way out of modern *cosmophagy* (Neyrat 2016). To operate this paradigmatic bifurcation, mesology pays deep attention to a rhythmic and bijective process that organizes and structures the coexistence of a being and its surroundings. Augustin Berque has used various words and expressions to describe this living quality of coupling between the past and the future. These notions (structural moment, trajection, existential pulsation, mediance) give the structural beat of the historical constitution of *milieu*. They point to a veiled faculty of organization that seems homologous to what we call thinking.

Yoann Moreau est anthropologue au Centre de Recherche sur les Risques et les Crises (Mines Paristech), Visiting Scholar au RIHN (Kyoto) et chercheur associé au Iac (EHES). Ses travaux portent sur les catastrophes, l'ingénierie en situation extrême, les modes d'existence insoutenables et les processus de destruction des milieux. Depuis janvier 2016 Yoann Moreau vit au Japon où il développe un programme de recherche sur les territoires abandonnés et les conséquences de Fukushima. Dramaturge pour la Cie Jours tranquilles (Lausanne), il a mis en scène une dizaine de spectacles sur les catastrophes qu'il qualifie de « spectRaculaires », c'est-à-dire ne répondant pas (ou plus) aux canons de la médiatisation, et de la dramaturgie dominante (disons « hollywoodienne ») : contamination nucléaire, explosion démographique des personnes en surpoids, dépression, perception du climatique à l'échelle domestique, et tueries de masse aux USA. Il a récemment publié *Vivre avec les catastrophes* (Paris : Puf, 2017), *Hantologie de Fukushima* (avec Yuji Nishiyama, Terrain n°69, mai 2018), *Habiter terrestre, hospitalité terrienne. Faire mondes avec les fictions, les non-humains et les non-modernes* (avec Alain Kaufmann dans « La Mésologie, un autre paradigme pour l'anthropocène ? » M. Augendre *et al.* (dir.), Paris : Hermann, 2018).

11:30–12:10 MURASE Masatoshi (Kyoto University, Yukawa Institute for Theoretical Physics, Advanced Future Studies) & TOMITA Naohide (Kyoto University, Graduate School of Engineering, Medical Engineering) 村瀬雅俊 (京都大学 基礎物理学研究所, 未来創成学), 富田直秀 (京都大学工学研究科機械理工学専攻, 医療工学)

***MURASE: How Does Nature Think? —Beyond A Dichotomy Towards A New Synthesis***

What is living nature? Despite the advanced studies of Western science and the progress of modern technology, we have not yet answered this problem satisfactorily. What is worse, it is a double problem that we cannot realize how we are deeply

influenced by the traditional way of Western thinking in attacking the above problem. Owing to the dichotomy of subject (or self) and object (or nonself), together with its corresponding reductionism, we have specified more and more the detailed components of a living system and have also required the reproducibility principle that the living system shows the same responses to the same stimuli under the same conditions. A dichotomy perspective of this kind, which has been central to modern science, stands on the assumption that opposites are mutually exclusive and even contradictory.

Contrary to this dichotomy perspective, there is an alternative complementarity perspective typical of Eastern philosophy, which is surprisingly similar to Niels Bohr's complementarity principle in modern physics. It actually suggests that opposites are not mutually exclusive, but merely complementary to one another, because opposites are thought to be only different aspects of the same wholeness. This means that there is no clear distinction between subject (or self) and object (or nonself). As there is no definitely isolated object, the reproducibility principle is mostly violated. We must therefore pay much attention to the transients—or processes—during the past history of living nature. On the basis of this complementarity idea, we are encouraged to have a holistic view by integrating fragments of knowledge at various component levels and time scales when investigating the history of living nature. In this sense, we need a new synthesis of Western science and Eastern philosophy, instead of considering either of them separately. Only then, it is possible to attack the long-standing question: what is living nature? Along these lines, in the present paper, a process of self-nonsel self circulation is introduced as an essential paradigm of living nature. As a living organism is engaged in challenges from both its internal and external environments, it contains unlimited conflicts and oppositions, which in turn must be the driving force for its evolution and development. It is such reconstructive dynamics that can give rise to an identity of the living organism. The resultant identity of living nature is represented by the Eastern image of the Mandala as an emergent symbol generated by the process of self-nonsel self circulation.

Masatoshi Murase is Associate Professor of Yukawa Institute for Theoretical Physics at Kyoto University. He is also Director of Research Promotion Strategy Office at The International Research Unit of Advanced Future Studies of Kyoto University. His research topics are life theories, theoretical biology, constructive recognition, semantics theories, environmental biology, theories of aging, emergent diseases, origin and evolution of Life. He holds PhD in pharmacology from Tokyo University. Publications : *Life as History: The Construction of Self-Nonsel self Circulation Theory*, Kyoto University Press, 2000 (in Japanese), "A Self-Similar Dynamic Systems Perspective of "Living" Nature— The Self-nonsel self Circulation Principle Beyond Complexity" In: *The Kyoto Manifesto for Global Economics The Platform of Community, Humanity, and Spirituality* (Eds: Stomu Yamash'ta, Tadashi Yagi, Stephen Hill), Springer, 2018.

### *TOMITA: Natural Procedure for Art-Technology Collaboration*

We have tried several art-technology collaborations in which art students and students from engineering, medical school, and other fields collaborated to develop products and systems for hospitals. The picture-story was produced and played before their field evaluation. By not starting from written or measured needs or specification, they found hidden needs and created new technologies and meanings. Examples of picture-story presentations are drawn in a practice. For example, the engineering students wanted to clarify and write down the objectives before their field evaluation. In contrast, when the art students participated, they did not write down the objectives unless they felt what they want at the site. They were seeking relationships and their "true motivation" in their field evaluation. In other words, the engineers start from structure, but the artists want to start from system where each "I" is exist.

Degeneracy is a biological term that different structures have similar meaning, for example a certain bio-function is fulfilled by several gene expressions, protein expressions and sugar expressions. The degeneracy is an important expression improving diversity and evolutions. Environment is discontinuous and if one structure become insufficient, then the other structure can improve the function. Similarly if the structure "eye" is damaged, then the system of "seeing" can be improved by touch, hearing and so on. Natural procedure is different from that of engineering, where not the structure but the system is in the first place, and new structures are discovered in the degeneracy network.

Art-technology collaborations are required for the human-related developments including medical care and service-system fields. We propose the "SUKI-ru" concept, defined as a sincere commitment to seek irreplaceable relationships. The concept is based on the idea that meaning is not an intrinsic attribute of an object but created from the discovery in the natural system. We insist that human-related development may become truly helpful simply by asking "is it what we truly want?"

Prof. Naohide Tomita is an orthopedic surgeon as well as engineer, and has been developing medical devices based on the so-called bio-environment designing concept. He insists that human-related development may become truly helpful by not start from structure, but start from system where each "I" is exist (SUKI-ru system). Référence : Poetic Space : the coordinate to design qualities using successive-dialectic, *Journal of Integrated Creative Studies*. No. 2016-023-a, Nov. 2016 (In Japanese).

12:10—13:40 Lunch

13:40—14:10 SHIGETA Masayoshi (Kyoto University, Center for African Area

Studies, Ethnology) 重田眞義 (京都大学 アフリカ地域研究資料センター, 農学・文化人類学)

***Yes, Plants Think: Some Evolutionary thoughts about the diversity and recognition***

Person-plant relationships are tentatively categorized into four aspects. These are men's cognition of plants, men's utilization of plants, plants' cognition of men and plants' utilization of men, respectively. The first aspect has been mainly dealt with in the study of folk taxonomy and the second in the classical ethnobotany and economic botany. Last two viewpoints of anti-anthropo-centric nature may be difficult to understand for human being. Cultivated plants, however, can be a good example to explain. For instance, non-dehiscent wheat should recognize as well as utilize men as a sole agent of seed dispersal, and such recognition is directly concerned with the reproductive success of wheat. Mutually beneficial relationships which can be found typically between agriculturist and cultivated plants, are called person-plant symbiotic relationships, and domestication is defined as their diachronic process. I would like to pursue this discussion while leaving the difficult issue of intention aside. In fact, in my opinion, it is possible that this kind of mutually dependent relationship (symbiotic relationship) between living things of different species exists regardless of the intention of those involved. Mutually beneficial relationships between humans and plants, most typically shown between cultivated species and farming people, are called “person-plant symbiotic relationships.” The process whereby this kind of relationship progresses between humans and plants is called domestication (Odum 1971; Rindos 1984). What is more, in the relationship between humans and plants at least, domestication is a process not an event (Anderson 1960).

Masayoshi SHIGETA is a Professor of African Area Studies at The Center for African Area Studies, Kyoto University. His main research interests extend from agricultural science, ethnobiology, and crop evolution to African area studies, anthropology, studies on sleep and society, and studies on development issues. His recent works include *ZAIRAICHI (Local Knowledge) as the Manners of Co-existence: Encounters between the Aari Farmers in Southwestern Ethiopia and the ‘Other’*, 2017, and *Relationships between Conservation vs. Utilization: Contribution; Area-studies Approaches to the Maintenance of Indigenous Plant Resources in Africa*, 2018.

14:10—14:50 MORIOKA Masahiro (Waseda University, Philosophy of Technology and Natural Philosophy) 森岡正博 (早稲田大学, 技術と自然の哲学)

***The Dialectic of Human Technology and Naturalness***

It seems to be impossible for nature to think, however, I believe that nature, being combined with human technology, can behave as if it were thinking in a very special way. I have called it a “double-controlled structure.” It is one of the key features of

“painless civilization,” which has become salient and apparent in contemporary society heavily influenced by scientific technology and industrialization. The topic of my presentation is the philosophical analysis of the dialectic of human technology and naturalness.

Masahiro MORIOKA teaches philosophy and ethics at Waseda University. He has published a number of books on bioethics, philosophy of life, and gender issues, mainly in Japanese, which include *Painless Civilization* and *Confessions of a Frigid Man: A Philosopher's Journey into the Hidden Layers of Men's Sexuality* (English translation available). He chairs the 2nd International Conference on Philosophy and Meaning in Life at Waseda University, October 2019.

[10 min. break]

15:00 – 15:40 Élise DEMEULENAERE (CNRS, Anthropology / Ecology)

*Semences paysannes, communautés microbiennes... De la critique de la modernisation agricole à l'instauration de nouvelles ontologies biologiques en agriculture.*

*Farmers' seeds, microbial communities.... From the critique of agricultural modernization to the introduction of new biological ontologies in agriculture.*

Division fordiste du travail, artificialisation des conditions de culture, standardisation des produits : la modernisation agricole qui s'est déployée dans les pays européens après la deuxième guerre mondiale a reposé sur un idéal industriel de la production agricole portant sur le vivant un regard réducteur. Des voix critiques de ce modèle se sont fait entendre rapidement, renforcées par les multiples crises (sanitaire, environnementale, économique) que connaît le monde agricole depuis les années 1980.

Dans les années 2000, un réseau issu du syndicalisme agricole défendant l'agriculture paysanne (la Confédération paysanne) et des milieux de l'agriculture biologique et biodynamique s'est structuré pour revendiquer une réappropriation paysanne des semences. Dans son sillage, des collectifs d'agriculteurs se sont constitués, pour remettre en culture des variétés locales et anciennes (libres de droit, et non standardisées), et pour refaire des sélections à la ferme. Leur engagement pratique et perceptuel avec ces plantes, leurs échanges réguliers avec des généticiens des populations, les ont conduit à éprouver et conceptualiser les qualités de ces « semences paysannes » : diverses et évolutives. Ce faisant, ils ont contribué à remettre en question les fondements ontologiques de la réglementation semencière basée sur des variétés idéalement « Distinctes, Homogènes et Stables ».

Parallèlement, dans le secteur de la fabrication fromagère, les producteurs attachés à la typicité des produits de terroir remettent en question l'usage massif de ferments sélectionnés, et tentent de réhabiliter le pilotage à distance du microbisme de la ferme que pratiquaient les générations antérieures de fromagers. Leur savoir est

conforté par les travaux scientifiques les plus récents de l'écologie microbienne, qui construisent une vision complexe du fonctionnement des communautés microbiennes. Ces alliances entre agriculteurs et écologues contribuent à instaurer dans le monde agricole de nouvelles ontologies du vivant, alternatives à celles – réductrices et statiques – de la modernité agricole.

Elise Demeulenaere est chargée de recherche au CNRS, au Centre Alexandre Koyré. Formée à l'origine à l'écologie, elle consacre depuis 20 ans ses recherches à l'étude des relations des sociétés à leur environnement, à partir de terrains lointains (Ethiopie) ou proches (France). Depuis 2005 elle s'intéresse plus particulièrement aux mutations contemporaines des rapports au vivant dans le monde agricole, à travers les mouvements pour la réappropriation paysanne des semences, et plus récemment, les coalitions d'acteurs pour la défense du fromage au lait cru. Elle a co-édité l'ouvrage *Humanités environnementales. Enquêtes et contre-enquêtes* (Editions de la Sorbonne, 2017, avec G. Blanc et W. Feuerhahn), dans lequel elle est l'auteure d'un chapitre consacré à l'histoire de l'anthropologie de l'environnement. Elle est membre nommée dans la section Anthropologie au Comité national du CNRS et membre élue de la Commission interdisciplinaire Environnement Sociétés.

15:40 – 16:20 Sarah VANUXEM (Université Nice Sophia Antipolis, Droit de l'environnement)

***Des droits reconnus aux choses de la nature. Le cas des servitudes prédiales.***

***Rights to the things of nature. The case of predial easements.***

Sur le terrain du droit, nous assistons aujourd'hui à un mouvement de personnification de la nature et de ses éléments, qui autorise certains humains (ou groupements d'êtres humains) à parler en leur nom et à porter leurs revendications. Le procédé repose toutefois sur la technique, moderne, de la représentation, quand notre tradition civiliste pourrait offrir une autre voie : celle des servitudes et, notamment, des servitudes prédiales, soit des relations juridiques existant entre des fonds de terre. Les droits et obligations des choses entre elles peuvent, alors, découler de la situation des lieux, mais aussi disparaître avant, éventuellement, de renaître au gré des changements dans la configuration des lieux. À telle enseigne que le droit pourrait ici accorder, sinon à la nature, du moins aux lieux, comme un droit de penser, et mieux, de légiférer.

Maîtresse de conférences à la faculté de droit de l'Université de Nice Sophia Antipolis, Sarah Vanuxem mène des recherches en droit de l'environnement. Sont récemment parus *La propriété de la terre* (Wildproject, 2018, Marseille), "Les sections de commune pour la protection des paysages ? Le cas du Goudoulet, section du plateau ardéchois" (*Les carnets du paysage*, Communs, n°32, Actes Sud - ENS du Paysage, 2018), "Des communautés d'habitants

pour la transition écologique et solidaire (in *Le droit des biens au service de la transition écologique*, B. Grimonprez (dir.), Dalloz 2018), "La compensation écologique comme mécanisme de droit analogiste" (*Revue Juridique de l'environnement*, 2019/1 (44)).

16:20—17h Pierre-Olivier DITTMAR (EHESS, Anthro-po-history of living things)  
*Quelle était l'ontologie de la nature de l'Occident pré-moderne ? Regard de l'anthropologie historique contemporaine.*  
*What was the ontology of the nature of the pre-modern West? Contemporary historical anthropology perspective.*

En reprenant les catégories de Philippe Descola, l'Occident chrétien médiéval apparaît dans une tension entre deux ontologies, relevant à la fois de l'analogisme et du naturalisme. Il s'agit dès lors de penser la séquence IVe-XVIIIe siècle comme un espace de travail dans lequel l'idée même de Nature connaît de fortes évolutions. Nous analyserons ici l'évolution des représentations de la Nature et conjointement de l'animal pendant cette longue période en prônant une re-ouverture de la documentation, tant vers des corpus cantonné aux études folkloriques, que vers les images, pour proposer une étude des milieux permettant de mieux restituer les cosmologies locales produites pendant cette longue période.

Maître de conférences à l'Ecole des Hautes Etudes en Sciences Sociales (EHESS), ses travaux portent sur les interfaces entre les humains et les autres formes de vie au cours d'un long Moyen Age, qu'il s'agisse des animaux, des invisibles ou des artefacts. Il a notamment co-écrit et co-dirigé : *Image et transgression au Moyen Age* (PUF, 2008) et *Le monde roman par delà le bien et le mal* (2012), *Les images dans l'occident médiéval* (Brepols, 2015) et *Images de soi dans l'univers domestique* (PUR, 2018).

17—18h Commentaires et discussion générale avec **Daniel NILES** (RIHN, Kyoto), les intervenants et le public.

**Daniel Niles** is a human-environmental geographer at the Research Institute for Humanity and Nature (Kyoto, Japan). His research examines how different forms of environmental knowledge are embedded in and conveyed through agricultural practices, material culture, and landscapes. Using agricultural heritage zones—places of special cultural and ecological value—as field sites, he is interested especially in how the environmental knowledge on which they depend remains sensible through time, and the relevance of these longstanding fields of experience to the contemporary challenges of the Anthropocene. He has served as Visiting Fellow at the Max Planck Institute for the History of Science, Visiting Researcher at the Department of Anthropology and Center for Japanese Studies at the University of California at Berkeley, and as International Consultant in Agricultural Heritage for the

Ministry of Agriculture and Cooperatives, Thailand, and the Food and Agriculture Organization (FAO) of the United Nations. Recent publications include “Science and the experience of nature” (with N. Tachimoto, in *Nature Sustainability*, 2018), “Agricultural Heritage and Conservation Beyond the Anthropocene” in the *Oxford Handbook of Heritage Studies* (Oxford University Press, 2018), “Conservation of traditional agriculture as living knowledge systems, not cultural relics” (with R. Roth, *Journal of Resources and Ecology*, 2016), and “The charcoal forest: ecology, aesthetics and the Anthropocene” in *Forms to Live the Environment* (Cambridge Scholars Press, forthcoming).

## (ACTE II)

7 Juin, UNESCO Salle IX

# REPRÉSENTATIONS DE LA NATURE

9h Accueil du public

9:30 – 9:40 Mot d'ouverture par YASUNARI Tetsuzō (Directeur Général, Research Institute for Humanity and Nature (RIHN) 阿部健一 (総合地球環境学研究所, 環境人間学)

9:40 – 10:40 Conférence introductive : John C. MARALDO (University of North Florida, Japanese Philosophy)

### *Is nature outside us or within us? Some philosophical reflections.*

Taking “nature” tentatively to mean the non-human natural world, and “us” to refer to human beings, I raise the question in the title of my talk to examine some unnoticed assumptions in accounts of the “Anthropocene era”—the historical era in which there is no longer a nature that exists apart from human beings. I suggest that this concept, as an alternative to previous representations of nature, is nevertheless captive to certain anthropocentrisms and Eurocentrisms. Like previous, no-longer tenable representations, this alternative too can be considered a myth in the sense of a cultural narrative that guides human attitudes and actions. Another set of myths worthy of consideration, rooted in Native American and East Asian cultures, tells us that humans were never apart from nature. Those representations imply that the “Anthropocene” is not a wise or ethical myth to resolve ecological crises. They imply not that humans always or originally lived in harmony with nature, but rather that, from the beginning, it is a practical mistake to separate humans from nature, precisely as demonstrated by evidence of natural devastation throughout history and throughout the world. But such myths of perpetual human-nonhuman inter-being also are of limited scope: they leave aside the phenomenon of consciousness that underlies the thematic question of this conference: “does nature think?” Revisioning the place of consciousness and self-awareness in nature is crucial to forming more practical representations of “nature” and more ethical responses to its (and our) well-being. The question whether nature is outside us and separate from us humans can be reframed as the question whether consciousness is solely within each of us. I turn to the vision of David Abram and the viewpoints of the medieval Zen philosopher Dōgen and the 20th-century philosopher Nishida Kitarō to suggest an answer to that question, and to the questions whether nature thinks and who represents or speaks

for nature.

John C. Maraldo (Dr. phil., University of Munich, 1974) is Professor Emeritus of Philosophy at the University of North Florida. He was a guest professor at the University of Kyoto and the Catholic University in Leuven, and in 2008-09 held the Roche Chair in Interreligious Research at Nanzan University, Nagoya, Japan. His works include *Der hermeneutische Zirkel : Untersuchungen zu Schleiermacher, Dilthey und Heidegger* ; *The Piety of Thinking* (with J. G. Hart) ; *Buddhism in the Modern World* (co-edited with H. Dumoulin); *Rude Awakenings: Zen, the Kyoto School, & the Question of Nationalism* (co-edited with James Heisig ; *Japanese Philosophy : A Sourcebook* (coedited with Heisig and Kasulis) ; and *Japanese Philosophy in the Making I: Crossing Paths with Nishida*.

Chair : UEHARA Mayuko (Kyoto University)

[10 min Break]

10:50 – 11:30 UEHARA Mayuko (Kyoto University, Graduate School of Letters, Japanese Philosophy) 上原麻有子 (京都大学 文学研究科, 日本哲学)

***The Idea of the “Knowledge of Nature” as Detectable within Modern Japanese Philosophy***  
(近代の日本哲学に見出される自然知という考え方)

A number of modern Japanese philosophers including Nishida Kitarō, Miki Kiyoshi and Nakai Masakazu, have advanced a philosophy of technique. They explain that the human body is conceived by a ‘natural technique’ (or ‘technique of nature’) and that the thing-making-body is technical. Their philosophy of technique, characterized by creativity, is based on the logic of the mutuality of the subject and object. They wish to overcome a dualism which posits the human being as the active subject, verses a passive, objective physical environment, instead arguing for the possibility of things and the environment taking on an active agency in the creation of the human. In this talk, I would like to consider the relation between technique, the knowledge of nature and art from the viewpoint of this philosophy of technique.

Uehara Mayuko has been professor of Japanese philosophy at Kyoto University since 2013, prior to which she held the post of Associate Professor at Meisei University in Tokyo for six years. She obtained her PhD from the École des Hautes Études en Sciences Sociales in Paris. She currently serves as editor-in-chief of the Journal of Japanese Philosophy (Suny Press). Her recent writings include *Philosopher la traduction-Philosophizing Translation* (dir. Uehara, 2017), *Name and Existence —A Reflection on the Philosophy of Kuki Shūzō* (2017), *The Nishida Philosophy and the Conceptualization of the First Person* (2016), *A Reinterpretation of Nishida’s*

*Philosophy: Facial Expression Considered from The Viewpoint of Intuition-Action* (2015).

11:30—12:10 ABE Kenichi (Research Institute for Humanity and Nature) + YŪKI Kōji (Leader of Ainu Art Project)

Ken-ichi ABE is Professor in Research Institute for Humanity and Nature. His research topics are Ecology, Eco Humanity and meaning of Globally Important Agricultural Heritage Systems. He holds master degree in Agriculture from Kyoto University. His areas of specialization are Asia Area Study and Environmental Anthropology. Based on repeated fieldworks, he has written and edited a number of books, including *Extreme Conflicts and Tropical Forests* (Springer 2007), *GOOD EARTHS: Regional and Historical Insights into China's Environment* (Kyoto University Press, 2009).

12:10—13:40 Lunch

13:40—14:20 YAMAKOSHI Gen (Kyoto Univ., Graduate School of Asian and African Area Studies, Primatology) 山越言 (京都大学 ASAFAS, 霊長類学)

### *Conservation of the Bush of Ghosts: Dual Nature in West African Anthropogenic Landscape*

African conflicts in wildlife conservation are, in reality, not the ones between human and nature, but rather the ones between different human actors. Ever since colonialism brought and established protected areas in Africa in early 20th century, the authorities have tried rigorously to distinguish nature from any human “disturbance” with aggressive coercion. To overcome this nature-culture dichotomy and intertwined conflict over wildlife conservation, I hereby try to introduce some concepts looking at the African wildlife conservation reality more positively and to propose more practical approach focusing on the potential of African anthropogenic landscape. At Bossou village, the forested region of the Republic of Guinea, the Manon people have conserved around the village a patch of small sacred forest where a well-known population of wild chimpanzees inhabits. The outlook of the sacred Gban hill, the core area of the chimpanzee habitat, seems quite “natural” today, but detailed descriptions of the topology of forest cover in the hill imply various types of “designs” by the local people. The forest is a package of smaller groves with different functions such as ceremonial sites for major clans, places for initiation rituals, sites where some forest spirits are enshrined, burial sites and so on. The “bush of ghost” has recently become a target of intensive scientific research on the chimpanzees and also a tourist attraction, providing the village pride over their tradition and small incomes, and new seeds of conflicts. Without appreciating the local concepts and autonomy, any intervention from outside would be unfruitful

regardless of objectives of rural development or natural resource conservation. This type of approach, not to distinguish nature reserve and people's livelihood, can be a model for convivial African wildlife conservation.

Professor at Graduate School of Asian and African Area Studies, Kyoto University. Gen Yamakoshi is a primatologist/environmental sociologist, doing his field-work in West Africa. His recent publications are: "A history of the distance between humans and wildlife" In: *Others: The Evolution of Human Sociality* (K. Kawai ed.) Kyoto University Press 2019, "The origin of tool-using behavior and human evolution" In: *An Anthropology of Things* (I. Tokoro, K. Kawai, eds.). Kyoto University Press 2018.

14:20—15h SHIMADA Nahoko (Research Institute for Humanity and Nature, Architecture, Ecological Thought) 嶋田奈穂子 (総合地球環境学研究所, 思想生態学)

### *The life of land*

Kanichi Nomoto, a folklorist in Japan, describes about the custom when people rebuilds the house in the local area in Japan, "Restoration of the spirit of the earth". People have to return the premises to nature once before building new house. They sow a turnip and soba (buckwheat) in the ruins of the house. And bud begin to open in three days. When buds appeared, people could see that the premises would return to nature. Nomoto says that this is the etiquette for the spirit of the earth. I also came to think about "life of the land" in a Shinto shrine study. "Why a Shinto shrine is there". 15 years ago, I had this question and I began to study to read the function and the meaning of the land of Shinto shrine. Because I want to know the reason that Japanese have been protecting the land as a Shinto shrine for a long time. In my field work, I pray first, sketch the shape of the precincts and observe the land use around the shrine. And I consider the characteristics of the location (I visited more than 800 shrines). Through this research, I watched the birth, transformation (changing the character and the role), and death (returning to nature at last) of the land of shrines. And I understood that Japanese people see the life and will of the land. Does nature think? I have no good answer but I think they have will. I will describe this point with some case examples.

Nahoko SHIMADA is Researcher in Research Institute for Humanity and Nature. Her research topics are Architecture, Imaginal Ecology, meaning of sacred place. She holds master degree in Human Culture from University of Shiga Prefecture.

[10 min. break]

15-15:40 HIRAKAWA Kayo (Kyoto University, Graduate School of Letters, Western Art History) 平川佳世 (京都大学 文学研究科, 西洋美術史学)

*Nature and Meditation: Landscape Painting in Early Modern Europe*

(自然と瞑想—近世ヨーロッパの風景画)

The modern landscape painting—based on real scenery without narrative connotations—was established as one of the painting genres in the protestant Republic of the Seven United Netherlands in the seventeenth century. In the sixteenth century, however, painters created various kinds of landscape paintings, which modern thought on this genre cannot comprehend. In these pre-modern artworks, nature is not an object just to be observed, depicted, or appreciated passively; instead, nature is approached as an active force that can lead its viewers into meditation on human life and the power of God. This paper reconsiders the relationship between nature and man by analyzing European landscape painting in the pre-modern era.

HIRAKAWA Kayo is Professor of Art History at the Graduate School of Letters, Kyoto University. She has published her dissertation, *The Pictorialization of Dürer's Drawings in Northern Europe in the Sixteenth and Seventeenth Centuries* (Peter Lang, 2009). She is also editor of *Kyoto Studies in Art History*, vol. 1 “Sacred and Profane in Early Modern Art” (Kyoto University, 2016). Her research on the diversity of pictorial forms in Northern Europe in the sixteenth century now continues.

15:40-16:20 YORIZUMI Mitsuko (The University of Tokyo, Buddhist Studies, Dogen) 頼住光子 (東京大学, 仏教学)

*Dogen's View of Nature (道元の自然観)*

The purpose of my presentation is to examine the thought of the Shōbō genzō, the main work of Dōgen, who has been described as the greatest philosopher in the history of Japanese thought, and to elucidate Dogen's view of nature. I would like to emphasize in particular regarding the contemporary significance of Dogen's view of nature that it can provide the philosophical foundations for realizing in a true sense “coexistence,” which is today a matter of pressing urgency. Especially important in this regard is the Buddhist way of thinking encapsulated in the terms “emptiness” and “dependent co-arising.” “Emptiness” means that things are not fixed entities and possess no intrinsic essence, while “dependent co-arising” means that things exist in spite of having no essence because they manifest thus in relationship to others at a particular time and in a particular place, a mode of being that may be described as “relational existence.” That is to say, one becomes oneself only in relationship to all other entities apart from oneself, and the fact of one's own existence simultaneously

signifies the existence of others. In this sense, oneself and others mutually bring about the existence of one another, and self and other may be said to be as one. In Buddhist terminology this is referred to as “oneness of self and others” or “interdependence.” When one takes this into account, “coexistence” does not mean, for instance, that entities existing as discrete individual units help one another out. According to Dogen’s view, to act on the basis of “oneness of self and others” and with an awareness of this oneness represents the realization of “coexistence.”

YORIZUMI Mitsuko is a professor of Japanese ethical and religious thoughts in the University of Tokyo, Japan. She has written and edited some books, including *A Study of Dogen’s Thought –The Essence of Mahayana Buddhism* (2011), *An Introduction to Japanese Buddhist Thoughts* (2010), *Enlightenment and Japanese* (2017) and *Rethinking Japanese Buddhism* (2018).

16:20 – 16:10 ONO Tadashi (Ecole Nationale Supérieure de la Photographie Arles, Artiste-Photographe) 小野規 (アルル国立高等写真学院, 写真家)

***Comment représenter le paysage du Japon après le désastre du 11 mars 2011 ?***

***How to represent the landscape of Japan after the disaster of March 11, 2011?***

Le triple désastre de la région côtière de Tohoku en mars 2011 — le tremblement de terre, le tsunami, et l’explosion de la centrale nucléaire de Fukushima-Daiichi — semble avoir transformé drastiquement non seulement le paysage réel mais aussi le rapport des japonais avec la nature, notamment celui avec l’océan.

A travers deux fieldworks, le premier de novembre 2011 à février 2012 et le deuxième de juillet à septembre 2017, j’ai tenté de photographier ces transformations en vue de créer les documents visuels artistiques de références sur le paysage littoral du Japon en ce début du 21<sup>ème</sup> siècle. Deux séries de photographies, “FROM THE 24<sup>th</sup> TO THE 34<sup>th</sup> DAY, TOHOKU” (2011-2012) et “COASTAL MOTIFS” (2017-2018), seront introduites lors de la conférence. Elles représentent les résultats temporaires des interactions entre l’homme et la nature : l’une, l’état après le tsunami qui a balayé l’exploitation côtière d’après-guerre, et l’autre, la construction en cours des digues anti-tsunami (hauteur 10-14m, sur une longueur totale de 400 km) et qui nous font nous interroger sur les conséquences écologiques, économiques, mais aussi civilisationnelles de l’évènement.

Né à Tokyo, après des études d’écologie et de botanique à la Shinshu University au Japon, Tadashi ONO est diplômé de l’Ecole Nationale Supérieure de la Photographie d’Arles, où il enseigne depuis 2017. Son travail photographique se veut un questionnement sur la civilisation moderne à travers l’observation attentive de l’environnement urbain et de son histoire. Il travaille depuis 2011 sur la transformation du paysage de Tohoku, la région Nord-Est du Japon, dévastée par tsunami, ainsi que sur les représentations sociales advenues dans

l'espace public après l'évènement politique en 2013 au Gezi Park à Istanbul. Ses photographies sont exposées en différents lieux, notamment à la Bibliothèque Nationale de France, au National Museum of Modern Art à Tokyo ou aux Rencontres Internationales de la Photographie d'Arles.

17—18h Commentaires et discussion générale avec YASUNARI Tetsuzō, les intervenants et le public.

Professor Tetsuzo Yasunari is General Director of the *Research Institute for Humanity and Nature, Human Environmental Studies*. He received Ph.D from Kyoto University in 1980. His main fields of study are monsoon meteorology, climate dynamics and global environmental change including human impacts on the earth system. He served as professors of University of Tsukuba (1990-2002) and Nagoya University (2002-2012). He was a member of Joint Scientific Committee of World Climate Research Programme (WCRP). He was also a reviewer editor of IPCC-AR5. Since April 2013 he is Director General of Research Institute for Humanity and Nature (RIHN). He is Chairman of the Future Earth National Committee under Science Council of Japan, and member of the International Science Committee for Future Earth.

### (ACTE III)

8 Juin, Maison de la Culture du Japon à Paris

## L'INTELLIGENCE SENSIBLE DU VIVANT

13:30—13:35 Mot d'ouverture : YAMAGIWA Juichi (President at Kyoto University)

13:35—14:35 Conférence introductive : YAMAGIWA Juichi (President at Kyoto University, Primatology) 山極壽一(京都大学総長, 人類学 / 霊長類学)

Both Kitaro Nishida and Kinji Imanishi stated that the essence of living things is characterized by synchronization of time and space, structure and function, subjectivity and objectivity, which we can feel physically and mentally but not logically. To live is to respond proactively to environments which afford the sense of living things. However, science based on logos and language percept the world spatially with linear time and enable us to understand the nature only partially. Modern science has led us to objectivity so as to control our environments, and rapid development of technology leads us to fatal destruction of natural environments

beyond the planetary boundaries. Since humans differentiated from the common ancestor with the great apes, we have expanded community networks with creating fictions. Language contributed to expansion of culture, and we are now living in the fictions relying heavily on the virtual world. However, culture and nature should not be separated but be integrated into 'Milieu' (FUDO), as Augustin Berque pointed out. Imanishi proposed Natural Study with holistic approach, instead of Natural Science with reductionism. Japanese culture produced the concept of 'Aida' which belongs both side. For example 'Satoyama' is located between forest (mountain) and village (plain), and it belongs both. It tolerates both humans and wild animals and excludes neither. Reincarnation connects the world of living and after death, and river or bridge usually constitute 'Aida'. Humans and animals are regarded as transformable with similar soul. These traditional ways of thinking has cultivated emotion unique to Japanese people, and has led us to coexistence with nature, rather than management of nature. We should now reconsider on such intuitive conception with tetra lemma in order to keep harmonious relationships with nature on the earth.

Juichi Yamagiwa is the 26th President of Kyoto University. He is a world-renowned researcher and expert in the study of primatology and human evolution. He was awarded Doctor of Science from Kyoto University in 1987. After holding positions at the Karisoke Research Center, Japan Monkey Center, and Primate Research Institute Kyoto University, he has been Professor of Graduate School of Science at Kyoto University since 2002. He was Dean of Graduate School and Faculty of Science from 2011 to 2013 and has been a member of the Administrative Council of the University from 2012 to 2013. Dr. Yamagiwa has also served as President of International Primatological Society from 2008 to 2012, and as the Editor in Chief of *Primates*, a quarterly peer-reviewed scientific journal of primatology published by Springer Science+Business Media from 2010 to 2014. Recently he edited two major books on interspecific comparison between primates and cetaceans *Primates and cetaceans* (Springer 2014) and on primate social strategies *Dispersing Primate Females* (Springer 2015). In Japan, he serves as the president of the Japan Association of National Universities, the member of Science Council of Japan, and the member of Environmental Policy Committee of Ministry of Environment.

Chair : Yoann MOREAU (Mines ParisTech / RIHN Kyoto)

[10 min break]

14:40 — 15:10 Frédéric JOULIAN (EHSS, Anthropology)

*Intelligence avec l'ennemi ? Ou comment redistribuer l'intelligence entre les vivants ?  
How is intelligence distributed among beings?*

If the introductory argument encourages us to move away from the dominant reflexivity and the few elected animals who seem to have it, and pushes us to question other sensitive intelligences in the animal or plant world, I will opt here for a more limited set of actors and actants precisely defined by these reflexive capacities, such as great apes, cetaceans, birds or hominines. The idea is of course to shift the anthropological point of view to the benefit, not of the animal side (because it is not more exact or more legitimate), but of an inclusive approach which analyse "what is happening" between beings with reflexive capacity - but deprived of language-, and self conscious and linguistic human beings, or prehumans (but still in genesis on these two characteristics). To illustrate these overly general remarks, I will describe the different forms of intelligence (rational, practical, sensitive, emotional) and how they are distributed among different species, and affect evolutionary history from an interspecific point of view. I would enroll, hairy quadrumanes, milieu, artifacts, interspecific interactions, eating modes, and of course, stupidity, an intellectually beneficial counterpoint, to contemporary animalist demagogies.

Frédéric Joulian est anthropologue. Maître de conférences à l'École des hautes études en sciences sociales, il a été directeur adjoint du laboratoire d'Anthropologie sociale au Collège de France et responsable du programme interdisciplinaire *Évolution, natures et cultures* de l'EHESS jusqu'en 2011. Il a dirigé la revue interdisciplinaire *Techniques&culture* de 2006 à 2016. Ses recherches portent sur les processus d'évolution et sur les significations des phénomènes techniques et culturels dans le temps long et sur les interactions hommes-animaux en Afrique et en Europe. Parmi ses principales publications: *La Nature est-elle culturelle?* Éditions Errance (1998), *Les Natures de l'Homme*, avec S. de Cheveigné (2007), *Dire le Savoir-Faire* avec S. d'Onofrio (2008), *Anthologie raisonnée de Techniques&culture* avec G. Bartholeyns et N. Govoroff (2010), *Geste et Matière* (2011). Il a coordonné avec Y.-P. Tastevin et le MuCEM l'édition d'un ouvrage collectif sur la question du reste et des déchets, intitulé « *Réparer le Monde, excès, reste et innovation* » (2016) et « *Le corps instrument* » avec G. Bartholeyns en 2017. Il se consacre désormais à un ouvrage personnel retraçant l'ensemble de ses travaux en Afrique: « *Des origines de la culture: des hommes et des chimpanzés en perspective* » et à un projet éditorial *Anthropographiques* associant SHS et Bande-Dessinée.

15:10—15:50 UCHINO Kanako (Polynesian Voyaging Society, Oceanography/Natural Education) 内野加奈子 (ポリネシア航海協会, 海洋学 / 自然教育)

***An art of wayfinding, a traditional navigation method by interpreting elements of nature.***

ウェイファインディングの技巧 - 自然の要素を翻訳する伝統航海術について

The ancient Polynesian explored and settled on the islands of the Pacific, navigating across thousands of kilometers of open water. Using stars as a compass, and carefully

observing the patterns of ocean swells, wind, clouds, weather and wildlife, they could navigate their path without using any instruments. In 1975, a voyaging canoe Hokule'a was built to revive this art of ancient wayfinding. In this presentation, the traditional navigation method and experience from the actual voyages of Hokule'a will be introduced.

古代、ポリネシアの人々は、数千キロの海を航海し、太平洋の島々を見出し定住していった。彼らは、星を羅針盤とし、海のうねりのパターンや、風、雲、天候の変化、野生動物などを注意深く観察することで、一切の計器を用いることなく、外洋を自由に行き来することができた。1975年、そうした古代航海の技巧を現代に蘇らせるべく、ホクレアと呼ばれる一艘の航海カヌーが建造される。本発表では、ホクレアの航海を追いながら、常に変化する自然を読み取り、自らの進む道を見出す伝統航海の実際を紹介する。

15:50 – 16:30 Jacques TASSIN (CIRAD, Plant ecology)

### *L'Arbre ou la vie sensible - The Tree, or the sensitive life*

Un anthropomorphisme irrépressible voudrait que les arbres nous ressemblent, et qu'ils partagent avec nous ce dont nous sommes le plus fiers : notre intelligence. Outre l'impasse que cette posture présente quand il s'agit d'investiguer l'image même de l'altérité, voici qui revient, une fois encore, à nier la primauté du sensible dans les rapports du vivant avec son milieu. Or, la plante en général, l'arbre en particulier, nous révèlent que ces rapports, sauf à tordre le sens des mots, s'affranchissent de la voie de l'intelligence. L'arbre lui-même, grande figure du vivant, révèle en effet combien, mieux que l'intelligence qui impose de se distancier du monde, le sensible garantit une présence intime au monde. Il semblerait bien que les dispositions sensibles constitutives du vivant, qui trouvent en l'arbre une sorte de couronnement évolutif, permettent d'investir les réalités les plus authentiques du monde.

Jacques Tassin est chercheur en écologie végétale au Centre de coopération internationale en recherche agronomique pour le développement. Après avoir mené des recherches académiques, notamment sur les mouvements des plantes via leurs semences et s'être beaucoup intéressé au regard porté sur les plantes invasives, il se penche sur la manière dont nous considérons le végétal. Il est l'auteur, à ce titre, de *La grande invasion : qui a peur des espèces invasives ?* 2014, *A quoi pensent les plantes ?* 2016 et *Penser comme un arbre.* 2018, ouvrages publiés aux éditions Odile Jacob. Il s'attache au renouvellement de la pensée écologique et prépare un ouvrage sur "l'écologie du sensible". Parallèlement, il s'intéresse à l'écopoétique et prépare également une biographie de Maurice Genevoix pour les éditions Flammarion, en co-rédaction avec l'historienne Aurélie Luneau.

[10 min Break]

16:40 – 17:20 Perig PITROU (CNRS-EHESS, Anthropologie)

*Compter avec la nature, trouver le sens de la mesure. Interactions rituelles avec les non-humains dans le monde amérindien.*

*Taking Nature into account and finding principles of measure. Ritual interactions with the non-humans in the Amerindian world.*

Bien que la mathématisation de la nature ait sans conteste facilité une exploitation démesurée, le fait de compter ne conduit pas nécessairement aux conséquences désastreuses observées dans le monde industriel contemporain. Les peuples amérindiens attribuent ainsi à des entités de la nature (Montagne, Terre, Pluie, Soleil, Donneur de vie, Maître des animaux) la capacité de réaliser des opérations de comptabilisation qui participent au maintien des équilibres écologiques. Les interactions rituelles avec ces entités indiquent qu'elles sont réputées fixer une limite à l'exploitation des ressources – par exemple en punissant les chasseurs qui tuent trop de gibier – ou connaître les quantités adéquates de pluie et de soleil nécessaires à la croissance des récoltes. Dans ce contexte, les offrandes et les sacrifices visent à établir des accords avec des non-humains traités comme des partenaires à respecter. L'enjeu n'est pas alors pas seulement d'expliquer comment la nature – et les agents qui la peuplent – pense en termes comptables : il est de sonder les autres formes de pensées (émotions, sens de la justice) qui lui sont associées. En apprenant à « compter avec la nature » – au lieu de la traiter comme un objet matériel mathématisable –, il existe sans doute une voie à suivre pour que les humains établissent des relations plus équilibrées avec leur environnement.

Ancien membre de la Casa de Velázquez, Perig Pitrou est chargé de recherche au CNRS, au sein du Laboratoire d'anthropologie sociale du Collège de France, où il a créé l'équipe « Anthropologie de la vie » (avec Dimitri Karadimas). L'enquête ethnographique de longue durée qu'il mène parmi les populations amérindiennes de Oaxaca (Mexique) vise à mettre en évidence les théories de la vie qui prévalent dans cette région du monde. Les résultats de ce travail sont présentés dans *Le chemin et le champ* et dans les ouvrages collectifs *La noción de vida en Mesoamérica* et *Montrer/Occulter*. Dans le cadre des programmes qu'il a dirigés – « Des êtres vivants et des artefacts » (Fondation Fyssen), la pépinière CNRS-PSL, « Domestication et fabrication du vivant » et « La vie à l'œuvre » (PSL) –, il a publié plusieurs dizaines d'articles et du numéro spéciaux sur les biotechnologies. En 2016, il a reçu la médaille de bronze du CNRS pour ses recherches dans le domaine de l'anthropologie de la vie.

17:20 – 18:20 Commentaires et discussion générale avec Sander Van der LEEUW

(Arizona State University), les intervenants et le public.

Archeologist and historian, Prof. Sander van der Leeuw has been specializing in the long-term interactions between humans and their environments. He is a pioneer in the application of the Complex Adaptive Systems (CAS) approach to socio-environmental challenges, technology and innovation. As coordinator of the ARCHAEOEDEDES interdisciplinary research program (1991-2000) using the CAS perspective on socio-natural interactions and environmental problems in S. Europe – the first of its kind worldwide. Co-director of the ISCOM project on invention and innovation from a CAS perspective (2003-2007). In both projects modeling played an important role, despite the limited technical means available at the time. Since 2013 he is co-chair of the AIMES program, developing integrated socio-environmental modeling approaches. After teaching positions in Amsterdam, Leyden, Cambridge and Paris (Sorbonne), he became founding director of Arizona State University's School of Human Evolution and Social Change (2003-2011) and Dean of its School of Sustainability (2010-2013). Currently he is co-director of the ASU-SFI Center for Biosocial Complex Systems. External Professor of the Santa Fe Institute (since 2001) and Corresponding Member of the Royal Dutch Academy of Arts and Sciences (since 1995) he held a Chair at the Institut Universitaire de France (2003-2008). In 2012, he was awarded the title "Champion of the Earth for Science and Innovation" by UNEP.