IRAS

Scientific, Spiritual, and Moral Challenges in Solving the World Food Crisis

Program and Schedule

The Institute on Religion in an Age of Science

59th Annual Conference, July 27 to August 3, 2013

PRESIDENT'S WELCOME

Welcome, one and all, to the 2013 Conference: our second one at Silver Bay. We had a great experience last year, and we are looking forward to a similar one this year.

This year's theme is *Food*, a topic that is dear to every creature on earth, not just to human beings. Unfortunately, this very delightful aspect of human experience has also become a matter of grave concern to our species. With ever increasing human population and steadily decreasing natural resources, especially water, ecologists are foreseeing ominous developments by mid-century. Thoughtful thinkers, responsible politicians, inquiring scientists, and innovative technologists are striving in different ways to alleviate and avert the dangers lurking behind human actions. We are looking forward to learn much regarding the many aspects of this complex problem from our various speakers, and to raise questions as well. I trust that as usual you will all be participating in the debates and discussions that will be taking place here this week, and also be interacting meaningfully with the others who will be here.

Most of all we trust we will come away with ideas to do whatever little each of us can do in this context which crosses national, religious, and ethnic boundaries. It is a human problem that is staring at us starkly in the face.

On behalf of all IRAS members I would like to thank Dr. Solomon Katz and Dr. Patricia Bennett for their efforts and dedication to prepare for and bring about this conference. Our welcome and thanks are also to our speakers and to everyone who has come to attend the conference.

This year, I am taking leave of you as President, and would like to express my appreciation to all our members for their support and cooperation during my tenure.

As always, with best regards, V. V. Raman President of IRAS July 2013

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CONFERENCE STATEMENT

Food occupies a central place in human life. Not only are its nutrients necessary for our survival, but feasting, fasting, and sharing are integral to our history, cultural identity, and religious traditions. Yet today, and for the foreseeable future, nearly half of the world's people cannot enjoy the fullness of their potential due to problems with food affordability, safety, and access. Serious problems with food production and price increases currently leave about one billion people experiencing hunger, and many of them facing starvation. Another billion spend over half their entire income on food, but still have only marginally enough to eat. Yet, concurrently, at least another billion people in the world are experiencing problems from consuming too much food and/or from dietary imbalances and safety problems that result in serious chronic diseases and infections.

Among the questions to be addressed at this conference are the following:

- What are the origins and evolution of human diet and the food system, and how does this knowledge provide new insights about our contemporary food problems?
- What is the status of world food resources? How does it relate to macro and micro food problems locally and nationally in the United States and throughout the world?
- How does food serve as a symbol and a substance of various religious traditions? Has the loss of social traditions surrounding food production, preparation and consumption contributed to the problems noted above?
- How can the human food system be made more sustainable? How can healthy diets be safely and economically made available to all humanity? How can new scientific and medical knowledge optimally help with sustainability, safety, and access?
- What are the tensions created by climate change; population growth; demographic change; global trade and commodity pricing; market and business forces; water management; energy resources; food to fuel; new GMO technologies; agricultural practices; land use and agricultural practices; increased meat, dairy, and egg production; food sovereignty at local, national, and international levels; increased socio-political interests; and the demands for human rights and just food policies?
- What secular and religious ethics and values can help to balance and/or solve food problems at all levels of the food system? What human and institutional resources are now available or need to be developed to catalyze meaningful solutions to food problems?
- What are the potentials of a combined science and religion approach to achieving sustainable solutions to world food problems?

One of the conference's aims is to derive, develop, and disseminate a Declaration of Principles for achieving sustainable solutions to some of these issues, based on such a combined approach; and to issue an accompanying call to appropriate action at personal and communal levels.

Sol Katz
Pat Bennett
Conference Cochairs

ORIGIN OF IRAS

In the late 1940s the American Academy of Arts and Sciences organized a Committee on Science and Values to address topics relating contemporary scientific knowledge to fundamental human concerns about life's morals and meanings. The Committee, which included astronomer Harlow Shapley, neurobiologist Hudson Hoagland, geologist Kirtley Fletcher Mather, biologist George Wald, and Ralph Wendell Burhoe, the executive secretary of the Academy, stated that "we believe that ... the survival of human society depends on the reformulation of man's world view and ethics, by grounding them in the revelations of modern science as well as on tradition and intuition."

Several from this committee accepted an invitation to bring their views to an interfaith group at the Coming Great Church Conference on Star Island, New Hampshire, in the summer of 1954. Later in 1954, the group from the American Academy accepted an invitation of the Coming Great Church Conference to form the Institute on Religion in an Age of Science, a multidisciplinary society that carried forward the work of both predecessor groups. Other leaders involved in the establishment of IRAS included Brand Blanshard, Edwin Prince Booth, Dana McLean Greeley, Donald Szantho Harrington, Henry Murphy, Lyman Rutledge, and Malcolm Sutherland. Other early members included Ashley Montagu, B.F. Skinner, Theodosius Dobzhansky, and Ian Barbour.

Since 1954 IRAS has held an annual conference (except in 2007, when the conference was cancelled because of facilities problems) on science, values, and religion. This is the first annual conference held at Silver Bay. IRAS has also conducted—on its own or in collaboration with other groups—conferences in other places: at universities and theological schools and at meetings of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, and the American Academy of Religion.

In 1965 IRAS joined with the Meadville Theological School of Lombard College (later Meadville/Lombard Theological School) to establish a journal: *Zygon: Journal of Religion and Science*. The first issue was published in March 1966 under founding editor Ralph Wendell Burhoe, director of the newly formed Center for Advanced Studies in Theology and the Sciences (CASTS) at Meadville/Lombard. In 1979, when Karl Peters succeeded Ralph Burhoe as editor, the editorial offices moved to Rollins College in Florida. IRAS, the Center for Advanced Study in Religion and Science (CASIRAS, successor to CASTS), and Rollins College became joint publishers. In 1989 the editorial offices moved back to Chicago under the editorship of Philip Hefner, director of the newly formed Chicago Center for Religion and Science (renamed the Zygon Center for Religion and Science in 1999). Willem Drees formally assumed the editorship of *Zygon* on July 1, 2009. Since its founding, Zygon has been the chief international voice for the scholarly community in science and religion and has greatly strengthened the influence of the IRAS-CASIRAS approach to relating religion and the sciences.

PURPOSE OF IRAS

IRAS is a multidisciplinary society of persons who seek to understand and reformulate the theory and practice of religion in the light of contemporary scientific knowledge, and to provide a forum for discussing issues relevant to that goal. The IRAS Constitution states the formal purpose as follows:

- (1) to promote creative efforts leading to the formulation, in the light of contemporary knowledge, of effective doctrines and practices for human welfare;
- (2) to formulate dynamic and positive relationships between the concepts developed by science and the goals and hopes of humanity expressed through religion; and
- (3) to state human values in such universal and valid terms that they may be understood by all peoples, whatever their cultural background or experience, in such a way as to provide a basis for worldwide cooperation.

Various other statements of the goals and purposes of IRAS have been articulated over the years. For example, there is one in the back of each *Zygon* which says, "IRAS is an independent society of scientists, philosophers, religion scholars, theologians, and others who want to understand the role of religion in our dynamic scientific world." The lead-off paragraph above resulted from discussions by the IRAS Council before the 2002 Star Island Conference and is intended to make it clear IRAS is open to all persons who share its goals, not confined to an academic or public policy "elite."

Most recently the IRAS Council at its 2003 Midwinter Meeting adopted the "Campion Statement," socalled because it originated from discussions at the Campion Center in Massachusetts at the Council's 2002 Midwinter Meeting:

We at IRAS take the natural world seriously as a primary source of meaning. Our quest is informed and guided by the deepening and evolving understandings fostered by scientific inquiry.

From here, our quests for meaning take us in divergent directions. For some, the natural world and its emergent manifestations in human experience and creativity are the focus of exploration. For some, understandings of the natural world are interwoven with understandings inherent in various religious traditions, generating additional paths of exploration and encounter. As a result, we articulate our emerging orientations with many voices, voices that are harmonious in that we share a common sense of place and gratitude.

We acknowledge as well a shared set of values and concerns pertaining to peace, justice, dignity, cultural and ecological diversity, and planetary sustainability. Although we may differ and hence debate on how these concerns are best addressed, we are committed to participating in their resolution.

IRAS is a nonprofit membership organization. Governance is by a volunteer Council whose members are elected from the entire membership. New IRAS members and tax-deductible contributions are always welcome.

SILVER BAY YMCA OF THE ADIRONDACKS

Silver Bay YMCA of the Adirondacks is a 100-year-old YMCA family retreat and conference center on the shores of Lake George. Silver Bay hosts conferences, family reunions, family vacations, weddings, and team building and leadership training on a 700-acre waterfront campus within the Adirondack Park of New York state.

Silver Bay has a variety of accommodations from private-bath rooms and shared-bath rooms in historic buildings to private cottages located on the periphery of the campus. Silver Bay offers accommodations to fit all groups' needs and budgets.

Silver Bay also offers an array of meeting spaces to fit the needs of your group, ranging from quaint enclosed pavilions and historic halls to a 700-person auditorium. As a courtesy to all conferences and groups, Silver Bay provides standard audio-visual and conferencing equipment and setup at no additional charge.

At the heart of Silver Bay are dozens of activities for all ages. Learn lifetime activities, including archery, boating, crafts, music, nature, and much more.

As a membership organization of 1500 families from the local community, throughout the Northeast and the world, we offer a place for all. As a member of Silver Bay YMCA, you can swim and paddle on one of the cleanest lakes in the world, hike our many groomed trails, or relax on the Inn porch in one of our famous rockers.

As a community outreach organization, we provide services to our regional youth, adults, and seniors through our:

- Afterschool program at the Ticonderoga Middle School
- Youth and Government program
- Youth Music Camp
- Fitness and social programs for youth and adults in the winter and spring months
- Brookside/Trinity Community House Retreat Ministry

GENERAL CONFERENCE INFORMATION

Silver Bay Conference Center is much larger than the venues we have used in the past and we will be sharing it with other groups and families. Their procedures are also significantly different. It is necessary to carry your name tag at all times, because it serves as a pass to meals, our plenary lectures, happy hour, Silver Bay facilities, and recreational equipment.

Silver Bay meals are buffet-style open seating at 7:30-9:00, 11:30-1:00, and 5:30-7:00. It also offers coffee and a continental breakfast from 6:30-7:30. The "official" IRAS meal times are 7:30-8:30 AM, 11:45 AM-1:00 PM, and 5:30-7:00 PM.

Silver Bay does not allow alcoholic beverages on its campus except at approved events such as our Happy Hour.

Announcements: Because Silver Bay's dining halls are not suitable for making announcements, they will be made at the beginning of the morning plenary lecture and at the end of the Happy Hour.

Chapel services: Each day begins at 8:30 AM in the Helen Hughes Chapel, with reflections provided by VV Raman and music provided by the IRAS Choir, directed by Jane Penfield, accompanied by Vaughan Watson. Choir rehearsals will be daily at 1:00. See the description on page 17.

Plenary session lectures and discussion are scheduled in the *morning* (starting at 9:30 AM) and *evening* (starting at 7:00 PM) in Morse Hall. The speakers (first hour) will develop the theme of the conference as they address different issues and questions from their own disciplines and perspectives. Following a break with refreshments there will be general discussion. Abstracts and biosketches of the speakers begin on page 8.

Workshops and **Discussion Groups** will be offered during the afternoon from 2:00–2:50 and 3:00–3:50 PM. Leaders and workshop locations are listed in the schedule on the back page of this program booklet and workshop descriptions begin on page 18, listed alphabetically by presenter.

Free University sessions, from 1:00–1:50 each day except Thursday, provide conferees with an opportunity to present their ideas informally and discuss them with others. If you wish to organize such a session, you need to do two things: 1) Check with Steven Gaudet at least the day before for a room assignment, and 2) after doing so, give a written note to Jennifer Whitten, editor of the *Beacon*, describing your offering and its time and location. The announcement will appear in the *Beacon* and will also be posted.

Happy Hour takes place at the end of afternoon activities, from 4:30–5:30. We gather informally in the Gullen Lounge for an hour of libations, snacks, socializing, and, often, music. Contributions to cover the cost are both needed and appreciated. Persons under 21 are not permitted in the beverage-serving area. Silver Bay staff will be serving the drinks (soft, beer, and wine only; no hard liquor).

Candlelight services in the Chapel allow time for quiet reflection at the close of each day following the evening-program discussion hour. Each service lasts ~20 minutes. See the description on page 17.

Memorial Service: A memorial service for IRAS members who have died during the past year will be held in the Chapel on Friday at 2:00.

Talent Show: The IRAS Talent Show is on Friday evening. If you would like to participate, especially if you have talent (this is an optional requirement; all hams are welcome), Joan Hunter, the talent show coordinator, will be happy to hear from you.

Newspaper: The *Beacon* is an IRAS tradition. This conference newspaper appears at breakfast each morning with up-to-date information on the conference and its participants. It provides opportunities for you to respond to lectures and the conference theme, challenge ideas, publish poetry, commentary, and other forms of artistic expression, including humor, all at the discretion of the editor, Jennifer Whitten, and as space is available. Contributions from our younger conferees often grace the pages.

Recreation: Afternoons are also opportunities for recreation: talking, thinking, napping, reading, walking, and playing. Silver Bay's inviting setting offers rich opportunities to renew, refresh, and nurture body, mind, and spirit. Recreational activities abound, including swimming, sailing, hiking, kayaking, canoeing, tennis, yoga, tai chi, archery, nature programs, and volley ball.

Star-gazing will take place on clear nights and during daylight (looking for sunspots) as well. Check with Dave Klotz for when and where we'll be holding these sessions.

An informal **farewell party** will be held on Friday night, an important part of which is to use up any refreshing substances left over from Happy Hour.

If you have any **questions** or **suggestions** concerning the conference, please bring them up with Conference Coordinator Steven Gaudet or with Cochairs Pat Bennett and Sol Katz.

Conference Website: This year, for the first time, we have a dedicated conference website which you can find at http://irasconference.com/. This is enabled for mobile browsing to allow easy navigation for those of you viewing via mobile phones or tablets, as well as for those with net books and laptops. In addition to full information on speakers and sessions, we will also be posting short summaries of all the plenary talks as well as, in some instances, recordings of the plenary lectures themselves. There will also be guides to various resources, alongside downloadable versions of the posters and any associated handouts. This is also, in tandem with the Beacon, where we will be posting conference news and updates, as well as daily photos of conference goings-on for you to enjoy.

We will also be hosting a conference blog, with contributions from the Booth-Shapley Fellows as well as other conference luminaries. This section of the site will be comment enabled with a view to stimulating discussion; so please do read the posts and interact with them through comment and questions, or by posting your own links and resources. Discussions will be moderated by the writers of the original post.

Finally—a real IRAS first—we have a conference twitter account, and will be tweeting updates and comments from the sessions. Follow us @IRASconference and retweet or get tweeting yourselves as a way of bringing the conference to the attention of a wider audience, and connecting up with other folk interested in food issues. If you've never ventured into the world of twitter but want to give it a try, have a word with one of the IRAS scholars for a quick 101 on how to set up an account and get twittering! If you don't want to twitter yourself, you can still follow our tweets via the conference website.

We are on a learning curve with both of these things, but we think they will really enrich the conference experience for those who are here at Silver Bay, as well as bringing the conference to IRAS members and other interested parties who are not able to attend. And the more folk visit and engage with these virtual aspects, the better they will be and the more they will add to the life of the conference.

Conference Food: One of the things we want to do as part of the conference is to be much more mindful of how we ourselves are eating during its course (and afterwards too!). With this in mind, there are a number of things we want to draw to your attention regarding our eating arrangements. Firstly, we have taken a decision not to serve any processed foods during the plenary drinks breaks; instead we have asked Silver Bay to provide fresh fruit, vegetable crudités, and dried fruits and nuts. Secondly, we will only be serving minimal nibbles at Happy Hour—we need to have some food on offer to comply with the regulations for serving alcohol at Silver Bay, but since we go straight from HH to supper, we have asked for this to be kept to a minimum. Thirdly, we will be doing our end of conference banquet in a slightly different way...watch this space! Finally, we are proposing a number of "food challenges" which you might like to try at some stage during the course of the week—look out for further information in the Beacon and on the website.

LECTURE ABSTRACTS AND BIOSKETCHES

SATURDAY EVENING

OPENING SESSION

ABSTRACT

There is a legitimate perspective that the immense problems of world food security are on the verge of becoming even worse. Time may be running out for accomplishing real, effective change. Human population numbers continue to rise. Climate is changing faster, and is limiting current food production more, than most scientists thought possible. And the options for cheap, clean and noninvasive energy sources to fuel increases in productivity are not available at the magnitude required to meet the projected needs.

But there is also a more hopeful perspective: that a combination of new commitments and reframing of the issues into topics that meet practical concerns may bring about the necessary investment of resources to provide the required solutions. This is what occurred in the early 1970's, when world food ran short and the green revolution restored balance. However, this current hope is tempered by the struggle we are having with a worldwide set of issues that require more personal energy and dedication than we can muster/generate from the global economic system we use to make decisions. This is evidenced by stalled and incompletely fulfilled promises of international help that may be further undone by the fear that arises out of competition for scarce resources that puts "me" first - rather than "Ithou". Fear that accompanies a loss of economic power, plus the dislocation that rapid changes are creating for the less advantaged in every society, are increasing the burden for whole societies, like ours, to make the political commitment necessary to address the true severity of the problem.

Will it be sufficient to rely on clever reframing of economically viable means to make more profit or will it come down to making the moral decision to support more than we have been traditionally willing to do? Suppose we put *food justice* first? What does that mean and who will do it? How can we change the values of society in such a way that it becomes an automatic decision to provide for the "other" where the basics of existence are at stake? This is where the moral and spiritual "rubber hits the road," and this is why we need to start sharing these perspectives within a religion and science framework.

The existential questions of who we are, who we aspire to be, and who we are prescribed to be are influenced by the accumulated wisdom of our religious traditions that have universally evolved the ethos that to give is better than to receive, to share is divine, and deep compassion provides its own rewards. Are these values that are deeply held, highly evolved and currently practiced within our traditions sufficient to help turn the tide in favor of getting this job done? Or will it take creating a new level of dialog between religion and science working together to make the transition to the right to food as a true global universal for all of humanity? What shapes can this science and religion dialog take to be effective, and how it could develop, is the subject of this opening session.

BIOSKETCH

See the individual biosketches below and in the section on morning chapel services.

SUNDAY MORNING

THE EVOLUTIONARY ORIGINS OF THE HUMAN DIET: IMPLICATIONS FOR SOLVING CONTEMPORARY PROBLEMS OF FOOD SECURITY, SAFETY AND SUSTAINABILITY

Solomon Katz

ABSTRACT

This presentation provides an analysis of the evolutionary origins and development of the human food system and is aimed at clarifying the role of diet in human natural history. It also provides the basis for developing evolutionary models to help guide food system planning for a more secure, safe and sustainable future. The data used to develop this analysis and model are based in part on scientific research several colleagues and I have conducted over many decades on maize diets that was subsequently extended to include nearly every other major plant food source in the human diet. The results strongly suggest that a key attribute of our species is the emergence of a shared, cumulative biobehavioral/bio-cultural information system in which knowledge about food evolves and is transferred from one generation to the next. And over time, this evolutionary information system supplements and complements our biological (genomic) capacities as a species to survive and prosper. The continued evolution of this rapidly accumulating information system has also facilitated the repeated ability of societies and civilizations to exceed the limits of the carrying capacity

of their environments by developing new technologies that successively enlarge their food resources, and is associated with greater growth of human population size and fitness in various environments. Throughout human natural history, these technological and cultural developments have unleashed a series of revolutions directly influencing the food system. Factors such as tools, food sharing, use and control of fire, the emerging sense of spirituality, domestication of plants and animals, elaborate cuisine traditions, irrigation, metallurgy, trade, writing, plows, globalization of plants and animals, mechanization and industrialization, and scientific enhancement of the food system together with a global economic developments, have continuously enlarged the potentials of the human food system. Based upon this analysis of the origins of the human diet, it is clear that we are not so much omnivores (eating everything), as we are "ethnovores", in that we are the products of a repeated co-evolutionary process through which entire food systems that were often culturally bound and highly specific to a particular ecosystem evolved and, depending on the length of time, were either more open or closed in terms of being adaptable and/or exportable. This concept of the ethnovore leads directly to reconsidering contemporary issues of food sovereignty, food sensitivity, safety, food traditions, and many other aspects of the contemporary food system that are being lost, in part as a result of overwhelming dependence on globalizing attributes like eating as an omnivore, which supports eating everything without regard to nutrient composition or its symbolic meaning in our traditions.

BIOSKETCH

Solomon H. Katz, Ph.D. is director of the Krogman Center for Child Growth and Development at the University of Pennsylvania, Professor of Physical Anthropology and Senior Fellow at the Wharton School Leonard Davis Institute for Health Economics within the University of Pennsylvania and CEO of the World Food Forum. His scientific work spans a number of disciplines including over 200 books, chapters, publications, reviews, and abstracts in the fields of molecular biology, biochemistry, neuroendocrinology, epidemiology, nutrition, child growth, development and health, anthropology and food studies, and science and religion. His Encyclopedia of Food and Culture (3 vols. 2,000 pages), was awarded both the Dartmouth Medal (US) and Emerald Award (UK). He was editor of a 14-book series on the *History and Anthropology of Food and Nutrition* that included four books on famine and food security in sub-Saharan Africa. Currently, he chairs the American Anthropological Association Task Force on World Food Problems. He is a former president of IRAS and honorary life Vice President for Science, the founding president of the Metanexus Institute on Religion and Science, and a former trustee of the Parliament of the World's Religions. He is an elected member of the

International Society for Science and Religion, a Fellow of the (AAAS) American Association for the Advancement of Science, a founding member of the Division of Science, Ethics and Religion of the AAAS, and serves as cochair of the Joint Publication Board of Zygon.

SUNDAY EVENING

THE GLOBAL PROBLEM OF THE DOUBLE BURDEN OF OBESITY AND UNDERNUTRITION

Sandra Hassink

ABSTRACT

Obesity and undernutrition are among the top ten risk factors comprising the global burden of disease. Undernutrition encompasses stunting (decreased height for age), wasting (short-term caloric depravation), and deficiencies of essential vitamins and minerals resulting in reduced immunity, increased susceptibility to infectious disease, and cognitive impairment in affected children. Obesity increases risk of diabetes and cardiovascular disease, including hypertension and stroke contributing to the burden of noncommunicable disease, which accounts for 2/3 of global mortality. Obesity and undernutrition are often approached separately, considered to have opposing causes and solutions. However, these two conditions coexist, the "double burden" globally, nationally, locally, within families and individuals in countries undergoing rapid societal transition involving a shift to a Western diet and lower intensity of physical activity. These transitions are not occurring simultaneously among or within countries and several patterns emerge. The first is a high prevalence of undernutrition in both adults and children, with high rates of micronutrient deficiencies coupled with emergence of overnutrition with attendant diabetes and cardiovascular disease, particularly in urban areas; examples being India and the Philippines. The second pattern is the occurrence of significant stunting but declining underweight and wasting among children. There is a continuing rise in TB and HIV and high prevalence in micronutrient deficiencies coupled with the emergence of adult overweight and obesity, with a rising incidence of noncommunicable diseases, including cancer. South Africa is an example of this pattern. The third pattern is characterized by both stunting and overweight in children with a low prevalence of underweight and wasting and a high, rapidly increasing prevalence of obesity in adults. Iron and vitamin A deficiencies continue, with an increase in diabetes and cardiovascular disease. Examples of this pattern are China, Egypt, and Mexico. An alarming trend is the appearance of stunting in early infancy due to prematurity, small for gestational age birth, reduced maternal height and/or weight and poverty, followed

by more rapid weight gain later in childhood and the development of obesity truly imposing a double burden of morbidity manifested in an individual child.

BIOSKETCH

Dr. Hassink is the director of the Nemours Pediatric Obesity Initiative and is actively seeing patients in the Weight Management clinic she began in 1988. She has testified before Congress on childhood obesity and has served as faculty for "Be Our Voice" advocacy training and for the legislative conference of the American Academy of Pediatrics (AAP). She has served as chapter vice president, chapter president and National Nominating Committee representative, district vice chair and district chairperson for District III. She is the chair of the Governor's Council for Health Promotion and Disease Prevention in Delaware. She has authored numerous articles, two AAP books, A Parent's Guide to *Childhood Obesity,* Pediatric Obesity: Prevention, Intervention, and Treatment Strategies for Primary Care, as well as Clinical Guide to Pediatric Weight Management. Dr. Hassink is co PI for the HALF (Healthy Active Living for Families) project, developing messaging around healthy active living with and for parents and families of children under 5 years. She serves as chair of the Advisory Committee for the AAP Institute for Healthy Childhood Weight. Dr. Hassink cochairs the APA Obesity SIG and was national faculty on the Healthy Weight Collaborative. She is a member of her hospital IRB, chair of the hospital Ethics committee, and vice chair of the DE state Ethics committee. She earned her M.S. in Pastoral Care and Counseling in 2000. Dr. Hassink has been married for 38 years to her husband Bill and they have three grown children.

MONDAY MORNING

FOOD SOVEREIGNTY AND ENVIRONMENTAL NUTRITION AS A FOUNDATION FOR FOOD JUSTICE AND SUSTAINABLE FOOD SYSTEMS

Barrett P Brenton

ABSTRACT

This presentation will discuss approaches to solving the world food crisis by supporting food sovereignty as a social justice and rights-based approach advocating for access to safe, nutritious, and culturally appropriate food through equitable systems of food distribution. This right to food is food justice and just food. It promotes the moral dignity of every human being through sustainable food systems that are tied to the environmental nutrition and dietary biodiversity of local ecosystems, landscapes and traditions. With an increase in the "globalization" of world food production and consumption, we should be deeply concerned about how this system impacts local food chains, environments and the food security and

health of communities. The current global food system has created health disparities that are linked to the paradoxical double-disease burden of under-nutrition and over-nutrition worldwide. It can be attributed in part to policies that have encouraged agricultural subsidies, discriminatory trade barriers, and the aggressive marketing of processed food and beverage products. This trend has been further exacerbated by large-scale shifts to industrial agriculture, including the use of biotechnology, wherein mono-cropping and cashcrop production strategies have led to an erosion of dietary biodiversity in local food environments. The scientific, spiritual and moral dimensions of food production and consumption chains must be considered as part of a sustainable food system and dietary biodiversity-based approach to food security that supports food sovereignty as the fundamental right of having the choice to determine what foods are produced and consumed along with supporting policies that guarantee those rights. An additional focus of the presentation will be on how the emerging field of nutritional epigenetics has poised us at a critical juncture in our understanding of environmental nutrition and the biocultural interface of human agency, action and biology that forces us to more closely consider the moral and spiritual dimensions of our own food choice and consumption patterns.

BIOSKETCH

Dr. Brenton, Professor of Anthropology, is director of the Center for Global Development and Graduate Program in Global Development and Social Justice. He serves as faculty expert and researcher for the Vatican's Permanent Observer Mission of the Holy See to the United Nations on issues related to food security, sustainable development, and environmental justice. He is a Senior Research Fellow of the Vincentian Center for Church and Society, cochair of the Rosalie Rendu Roundtable on Religion, Science and Social Justice, and former President of the Society for the Anthropology of Food and Nutrition. Dr. Brenton has published widely on issues of food security, health and nutrition. Recently he co-edited and contributed to the volume HIV/AIDS and Food Insecurity in Sub-Saharan Africa: Challenges and Solutions, and co-authored book chapters on "Farmer Resistance to Hybrid Seed in Haiti: The Implications of Agro-Industrial Inputs through Humanitarian Aid on Food Security, Food Sovereignty and Cultural Identity" and "Overconsumption and the American Food Enterprise: Anthropological Insights on Obesogenic Environments and the Global Nutrition Transition."

MONDAY EVENING

THE HUMAN RIGHT TO FOOD Ellen Messer

ABSTRACT

The human right to food (HRF), grounded in the Universal Declaration of Human Rights (UDHR 1948), asserts that all individuals have a claim on basic nourishment by virtue of their humanity. Food rights imply obligations, so establishing who has duties to provide (food, health, and care), to protect from deprivation, and not to deprive is an important part of conceptualizing and implementing HRF at multiple social levels. In legal parlance, the United Nations (UN) international human rights framework specifies states obligations to respect, protect, and fulfill the HRF for their own citizens, and to prevent violations elsewhere. Implementation of HRF in policy and practice also requires supporting politicaleconomic and sociocultural institutions, norms, and behaviors. Religion enters into this mix as an authoritative source of moral and social values (philosophy), and through establishment communities, with rules and rituals that affirm (or restrict) HRF in principle and practice. Science and technology provide materials and information that allow humankind to meet aggregate food needs, and analyses that help experts target food from where it is in surplus to where it is deficient. Together, religion and science profile who's hungry, why they are hungry, and what the world as a whole, or particular communities, might do about hunger problems.

This presentation briefly summarizes the historical background to the evolving UN HRF framework, the official and NGO institutions that are involved in advancing norms and substance, and recent steps taken to monitor HRF through legislative, process, and outcome indicators. Drawing attention to extra-legal parameters, the second section focuses on the concepts: "adequate food," "rights and obligations" and "who is a "human" being?" as particularly advantageous for further cross-religious, humanistic, and scientific discussion.

One particularly contentious issue concerns the appropriateness of agricultural biotechnology (ABT) as a set of tools for more sustainable food systems and a sustainable end to hunger; also, what kinds of institutions should develop possible products and set priorities, and who should monitor the acceptability of outcomes and if necessary, intervene. The final section updates "hard" and "social" science evidence, and moral and ethical arguments for, against, or intermediate on these ABT developments, and introduces certain religious perspectives, including theological ideas of human roles and capacities, and notions concerning human arrogance and pride. These might help concerned parties arrive at new insights and directions, which can then be connected to other substantive HRF efforts framed as fair trade, food sovereignty, and social justice movements.

BIOSKETCH

Ellen Messer (Harvard University, B.A.; University of Michigan, M.A. and Ph.D.) is an anthropologist specializing in food, security, religion, and human rights. She was director of the Brown University World Hunger Program and currently holds a visiting faculty position at Tufts University Friedman School of Nutrition Science and Policy. She is co-author of Who's Hungry? And How do We Know? Food Shortage, Poverty, and Deprivation (Tokyo: UNU Press, 1998) and co-editor of Ecology and the Sacred: Engaging the Anthropology of Roy A. Rappaport (Ann Arbor, MI: University of Michigan Press, 2001). A scholar-activist, in her research and teaching she emphasizes human-rights approaches to food-security, and the linkages connecting food, globalization, and conflict. Three ongoing projects are "Never Ending Hunger. US NGO Ideas, Images, and Actions" from 1974 into the new millennium, "Hunger and Human Rights: Religious Promise and Practice" and agro-biotechnology in cross-national perspective.

Professor Messer is a fellow of the American Association for Advancement of Science, and has served on the US National Academy of Sciences National Research Council's Committee on International Nutrition Programs, Earthwatch Institute's Science Advisory Committee, and the Nevin S. Scrimshaw International Nutrition Foundation's Board of Advisors.

In her personal capacity, she maintains an interest in the role of ritual in the evolution of progressive religious communities and values. She enjoys singing modern liturgical music, writes weekly Biblical commentaries, and participates in greater Boston interfaith working groups on the environment, and peace and justice in the Sudan. Her nonexpert passions include birdwatching, museums, and writing poetry.

TUESDAY MORNING

THE U.S. FOOD SYSTEM: IS OUR GOVERNMENT MEETING ITS OBLIGATION TO RESPECT, PROTECT, AND FULFILL THE RIGHT TO FOOD?

Robert S Lawrence

ABSTRACT

In 1976 a sufficient number of member states of the United Nations had signed and ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) for it to become binding international law. Article 11 of the ICESCR affirms "the right of everyone to an adequate standard of living for himself and his family, including adequate food...." In 1999 the Economic and Social Council released General Comment 12 on "The right to adequate food," emphasizing that "the human right to adequate food is of crucial

importance for the enjoyment of all rights." The Council described the essential components of the right to adequate food to include:

- Adequacy and sustainability of food availability and access (including the concept of a sufficient quantity and quality of culturally acceptable, safe food).
- Availability (either feeding oneself directly from productive land or other natural resources of from a well functioning food system of distribution, processing, and marketing).
- Accessibility (both economic and physical accessibility).

Having defined the necessary components of the right to adequate food, the Council went on to describe the obligations of the state to its citizens to respect, protect, and fulfill the right to food. Respect is the obligation of the state to recognize and honor the rights of its citizens to all of the human rights articulated in ICESCR and the International Covenant on Civil and Political Rights (ICCPR). Protect refers to the obligation of the state to protect its citizens from any actions by nonstate actors that might interfere with these rights. The obligation to fulfill the right to food has two components, as described in General Comment 12: "The obligation to fulfill (facilitate) means the State must pro-actively engage in activities intended to strengthen people's access to and utilization of resources and means to ensure their livelihood, including food security. Finally, whenever an individual or group is unable, for reasons beyond their control, to enjoy the right to adequate food by the means at their disposal, States have the obligation to fulfill (provide) that right directly."

The U.S. has signed (President Carter) ICESCR, but the U.S. Senate has never ratified the treaty. Nonetheless, with the passage of time the treaty has become customary law for all UN member states, whether signatory alone, signatory and ratification, or neither. This presentation examines how the U.S. is meeting its obligations.

BIOSKETCH

Bob Lawrence graduated from Harvard College and Harvard Medical School and trained in internal medicine at the Massachusetts General Hospital. After serving in the CDC's Epidemic Intelligence Service as a malaria epidemiologist in Central America, Bob joined the faculty of medicine at UNC-Chapel Hill as the medical director of a rural health services project funded by the Office of Economic Opportunity. In 1974 he returned to Harvard Medical School to direct its new Division of Primary Care and from 1980–1991 simultaneously served as chief of medicine at Cambridge Hospital. From 1991–1995 he was the director of health sciences for the Rockefeller Foundation, overseeing grant making in Asia, Africa, and Latin America. In 1995 he was appointed associate

dean for Professional Education and Programs at the Johns Hopkins Bloomberg School of Public Health, a position he held until 2006. In 1996 Bob established the Center for a Livable Future (CLF) to focus on the public health effects of our current food system. The CLF supports research, education, policy development, and advocacy on the interrelationships among food production, the environment, diet, and the health of the public.

In 1984 Bob joined Jonathan Fine and four others to found Physicians for Human Rights (PHR). He has participated in human rights investigations in El Salvador, Guatemala, Chile, South Africa, Egypt, Czechoslovakia, the Philippines, and Kosovo. In 1997 PHR shared the Nobel Peace Prize for its work to ban antipersonnel landmines. Bob has served on the PHR board of directors three times, twice as board chair. Since 1996 Bob has taught a seminar in health and human rights at Hopkins and integrates a human rights framework with his leadership of the CLF.

Bob is a member of the Institute of Medicine, a Master of the American College of Physicians, and a Fellow of the American College of Preventive Medicine. He lives with his wife Cynthia in Baltimore.

TUESDAY AFTERNOON

LOOKING BACK ON SCIENCE AND RELIGION FROM MY 90TH BIRTHDAY

Ian Barbour

ABSTRACT

This year we are delighted and honored to have Templeton Prize winner, Gifford Lecturer, and renowned author Dr Ian Barbour as a special guest at the conference. Ian, the Winifred and Atherton Bean Professor Emeritus of Science, Technology and Society at Carleton College, trained as a physicist with a PhD from the University of Chicago (1950), and as a theologian with a BD from Yale University (1956), and has drawn on the philosophical insights of both disciplines to transcend their boundaries. His seminal book Issues in Science and Religion laid the foundations for the modern development of the science/religion dialogue and Ian, who also contributed to the first issue of Zygon and was present at the first IRAS conference, joins us on the occasion of his 90th birthday to reflect on the changes in the science/religion field in the 48 years since its publication.

The session, which will be chaired by Karl Peters, professor emeritus of Religion at Rollins College, will comprise a presentation by Ian (including a video interview which was made last year as part of the 40 year celebrations of the Templeton Prize) with a response from Professor Sol Katz (conference cochair) and then from Professor Wim Drees (editor in chief of

Zygon). These will then be followed by an open Q & A session with the audience.

BIOSKETCH

Ian Barbour, emeritus professor at Carleton College, was a physics major at Swarthmore and gained his PhD in physics at the University of Chicago, where he was a teaching assistant to Enrico Fermi. He subsequently earned a divinity degree from Yale, and after joining Carleton College in 1955, founded the department of religion while teaching half time in physics. He began researching, teaching, and writing on science and religion, dealing particularly with methodological issues and the theological implications of contemporary science, and in 1989 and 1990 he gave the prestigious Gifford Lectures. These were subsequently published as Religion in an Age of Science (1990) and Ethics in an Age of Technology (1993). In 1999, he was awarded the Templeton Prize for Progress in Religion for work in creating, developing, and sustaining a dialogue between the worlds of science and religion. He has written or edited a dozen books, ranging from the classic Myths, Models and Paradigms (1974) through to those dealing with the impact of technology on society such as Technology, Environment, and Human Values (1980). His most recent volume, When Science Meets Religion (2000), uses the fourfold typology of conflict, independence, dialogue and integration developed in earlier writings, to structure successive chapters on Astronomy, Quantum Physics, Evolutionary Biology, Genetics and Neuroscience, with a concluding chapter on God and Nature. It has been translated into fourteen languages.

Willem B. Drees (Wim) is professor of philosophy of religion and ethics, Leiden University, Leiden, the Netherlands. He is the current editor of *Zygon: Journal of* Religion and Science, and the immediate past president of ESSSAT, the European Society for the Study of Science And Theology. Books written by him include Religion and Science in Context: A Guide to the Debates (Routledge, 2010; text discussed at the IRAS Book symposium at Chautauqua in 2009), Creation: From Nothing until Now (Routledge, 2002), Religion, Science and Naturalism: A Guide to the Debates (Cambridge UP, 1996), and Beyond the Big Bang: Quantum Cosmologies and God (Open Court, 1990). Books edited include The Study of Religion and the Training of Muslim Clergy in Europe: Academic and Religious Freedom in the 21st Century (Leiden UP, 2008), Technology, Trust, and Religion: Roles of Religions in Controversies on Ecology and the Modification of Life (Leiden UP, 2009), and Is Nature Ever Evil? Religion, Science and Value (Routledge, 2003). He occassionally writes tweets (@wimdrees and @Zygonjournal).

Karl Peters is professor emeritus of philosophy and religion at Rollins College, Winter Park, FL and was Editor of *Zygon* (1979–89) and Co-Editor (1989–2009). He has been attending IRAS Star Island Conferences since 1972, is vice president for conferences and a past

president of IRAS, and is co-chair of the IRAS 2011 Annual Conference. He is also the current president of the Center for Advanced Study in Religion and Science, which is IRAS's partner in publishing Zygon. Karl has a BA from Carroll College in Wisconsin, an MDiv from McCormick Seminary in Chicago, and a PhD from Columbia University in New York. For more than forty years he has taught, lectured, and published on issues in science and religion, with a special interest in understanding how religion and science can be related to everyday living. Many of his reflections are in Dancing with the Sacred: Evolution, Ecology and God (Trinity Press, 2002), and in Spiritual Transformations: Science, Religion, and Human Becoming (Fortress Press, 2008). His most recent publication is "Why Zygon? The Journal's Original Vision and the Future of Religion and Science," Zygon (June 2010). Karl is married to Marj Davis, who has been active in IRAS since 1977 and is a past president of IRAS and the current vice president for religion. They live in Granby CT.

TUESDAY EVENING

INTELLECTUAL PROPERTY, BIO-PIRACY AND TRADITIONAL KNOWLEDGE

Sehdev Kumar

ABSTRACT

In every community in the world, Traditional Knowledge [TK] is an essential part of the human heritage. This knowledge may have been "an old woman's tale," or extensively used practices with proven results as cure for certain diseases, or as a way of erecting a building or dyeing cloth, or harvesting at a certain time. TK was rarely written down; in fact, many important traditional practices predate the invention of script and are an integral part of the human social and cultural evolution.

Traditional Knowledge, however, fits nowhere in the contemporary notion of patent and private property as defined and understood by international organizations such as WIPO, WTO, and IPR. This came to a head in 1995 when a U.S. patent was awarded for turmeric, specifically for the "use of turmeric in wound and healing," raising fears in India of "biopiracy," since turmeric has been used, as part of TK, literally for thousands of years for hundreds of medicinal and other purposes.

The fears and accusations of biopiracy accelerated when in 1997, a U.S. company, RiceTec, won a patent on "basmati rice lines and grains." Since then, such issues about intellectual property and TK have risen in many other countries and communities in the world.

This paper presents a historical perspective on Traditional Knowledge and its implication for contemporary issues in intellectual property and growth and availability of food for human survival and well-being.

BIOSKETCH

Sehdev Kumar Ph.D., is professor emeritus of Environmental Ethics, University of Waterloo, and currently is a professor at the University of Toronto, Canada. Dr. Kumar's presentation will be based on his book, Matters of Life & Death: Reflections on Bioethics, Law and Human Destiny. He will explore issues arising out of efforts by some US scientists to patent neem, turmeric, and basmati rice-all parts of Indian food systemswhich stirred outrage against "cultural imperialism" in India and many other countries. He will discuss what constitutes knowledge, who has the intellectual right to it, and how genetically modified organisms in contemporary agriculture fit into these questions, in his presentation "Bio-prospecting" or "Bio-piracy" of traditional food plants and herbs that have been part of "Traditional Knowledge": What constitutes Intellectual Property?"

WEDNESDAY MORNING

FOOD SECURITY AND AGRICULTURAL INNOVATION: GENDERED AND NONGENDERED

Anita Spring

ABSTRACT

Some now argue that "Women will be the next agricultural revolution." As enticing as that sounds for solving food security problems, can it be so given funding and the lack of political will to reach women farmers on a large scale? This talk argues for such a bright outlook based on case studies of constraints and successes of women farmers in Africa, Asia, and Latin America.

Food security may be defined as satisfying and feeding the household, community, or population. It is not dependent on where the food is produced. Food sovereignty implies domestic production of food supplies, self-reliance and local ownership, fair and equitable distribution, etc. This talk looks at food security at household and community levels comparing women farmers from food insecure to food secure. It asks what are the determinants of the points along this continuum.

Disadvantaged women farmers vary from food insecure to a stable subsistence level. They lack adequate land, agricultural inputs (seed, fertilizers, agrochemicals), labor, credit/loans, and market access. They also may lack know-how of production techniques and irrigation needed for better yields. So neither by their production or sales do they manage to achieve food security. However, some have been recipients of programs that

have brought paradigm shifts that include cell phones/Internet with agricultural information, farm machinery/tools, new production and marketing techniques, and financial capacitation.

As well, there are advantaged commercial women farmers who are educated in the agricultural sciences, have access to resources (land, labor, and capital), and are linked in business networks and farmers' associations. Still others come from wealthy landholding families. There are women contract farmers, small- to large-scale producers, as well as market traders, agro-processors, and agribusiness entrepreneurs at all levels. They too may be recipients of agricultural paradigm shifts that include: up-scaling to larger ventures, international travel for markets, venture capital for commercial purposes, and enterprise diversification. They are food secure and interested in food sovereignty issues. These women provide role models, as well as clues to the methods that enhance women in agriculture.

The paper explores women in the food insecure categories who have been beneficiaries of development programs (self-help, government, NGOs and donors, international assistance), as well as those benefitting from research initiatives and financial capacitation made available to their communities. The question becomes, how do these changes ameliorate food insecurity?

Case studies from Jamaica, Haiti, St. Lucia, Kenya, Uganda, Ghana, Cambodia, Philippines, etc. also detail new conservation agriculture and sustainable intensification techniques to document ways women restore their lands and soils, make use of advanced techniques in cultivation, aquaculture, and livestock management that impacts household food security and beyond. For those already food secure women commercial agriculturalists, the question becomes whether or not there are gender differences in their successful innovations and endeavors.

BIOSKETCH

ANITA SPRING received her bachelor's from the University of California, Berkeley in chemistry, master's from San Francisco State University in anthropology, Ph.D. from Cornell University in anthropology. She is Professor Emeritus of Anthropology and African Studies at the University of Florida (UF). She was associate dean of the College of Liberal Arts and Sciences at UF. She served as Chief of the Women in Agricultural Production and Rural Development at the Food and Agriculture Organization of the United Nations. She has worked as a consultant for USAID, USDA, the Office of Technology Assessment (US Congress), FAO, GTZ, and private companies that carry out development assistance. She served as president of Culture and Agriculture (2008–10), Vice President of the International Academy of African Business and Development (2010-13) and Executive Secretary (2006–2010). Currently, she

is president of the Association for Africanist Anthropology and president of the Retired Faculty at UF.

Her research topics are agricultural intensification and food security; business and entrepreneurship (micro to global); gender issues in international development; and policy and management styles. She carried out research and development in Zambia (3 years), Malawi (2 years), and Ethiopia (1 year), and also worked in Botswana, Cameroon, Eritrea, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Senegal, Somalia, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. Her work on natural resource management, participatory appraisals, and gender and development have also focused on Jamaica, St. Lucia, and Trinidad.

She is the author or editor of 10 books and over 60 articles and monographs. Currently, she is the director of SABER, the Sub-Saharan African Business Environment Project that provides business environment information on the major economic, business, political and social indicators and trends for the 20 largest Sub-Saharan African economies. SABER 2011 and SABER 2012 have been published and are also available on the web. She has just returned from Haiti, Ghana, and Cambodia where she was evaluating agricultural intensification projects for women and men farmers.

WEDNESDAY EVENING

VALUING OUR FOOD, MINIMIZING WASTE AND OPTIMIZING RESOURCES: THE SCOPE AND SIGNIFICANCE OF THE GLOBAL FOOD WASTE PROBLEM

Steven Finn

ABSTRACT

The magnitude of the global food waste problem is staggering, and yet it receives very little mainstream attention. We waste nearly half of all food produced more than a billion tons of food annually across the globe—and yet nearly a billion people throughout the world are hungry. We don't seem to grasp the significance (indeed the audacity) of wasting such enormous quantities of food when 1 in 8 people are hungry-nor do we fully recognize the negative environmental impact of all of that wasted food. Fossil fuels and precious metals get much attention due to their finite nature and commodity status, yet our critical and fragile food system—which consumes massive amounts of resources annually while generating equally massive amounts of waste-seems to get much less attention despite the fact that food is central to life. Our values are out of balance. Quite simply, we need to value our food to a much greater degree, we need to address the shortcomings of our food system in order to minimize food losses from field to fork, and-when excess food

exists—we need effective partnerships to capture it for productive use.

Food waste at any significant level is unconscionable. Change is needed at all levels of society—and all around the globe—and that change begins with heightened awareness and a sense of responsibility to people and planet.

Feeding 9 billion people by 2050 is a tremendous challenge, but also a tremendous opportunity to develop new levels of innovation and collaboration to transcend hunger, improve the environment for future generations, and create a more unified, secure world. Reducing food waste in both developed and less-developed countries is a step in that direction, representing a sizeable opportunity to feed the world's hungry today and the additional 2 billion expected by 2050 while simultaneously improving the state of the environment for future generations.

A new, durable, multifaceted approach to reducing food waste is needed—one that is anchored by a new sense of responsibility among consumers, business, government, and global institutions to optimize resources. There is a role for everyone on the planet in the effort to reduce food waste; and a responsibility, too.

BIOSKETCH

Steven M. Finn, MBA, MSOD, MPHIL, is Managing Director of ResponsEcology—a sustainability and change management consulting firm—and is affiliated faculty at the University of Pennsylvania. Steve is a sustainability leader committed to reducing waste and driving change by leveraging innovative solutions and partnerships to optimize resource utilization. Steve combines 25 years of strategy and control experience in the supply chain sector with a passion for sustainability and conscious capitalism. Steve leads sustainability research in the areas of food waste and global food security and has developed innovative public-private partnerships to capture and redistribute excess food to mitigate hunger. He will address "Valuing Our Food, Minimizing Waste and Optimizing Resources: The Scope and Significance of the Global Food Waste Problem."

THURSDAY MORNING

WHY WE NEED RELIGION TO SOLVE THE WORLD FOOD CRISIS

A Whitney Sanford

ABSTRACT

The overflowing shelves and pristine aisles of our supermarkets belie an uncomfortable reality—that we face a global food crisis and that existing production and consumption practices are inadequate to feed the world's growing population. So how do we feed a hungry world in a manner that is just and sustainable?

While economists, policy makers, and agronomists, among others, have made significant contributions to addressing this crisis, few approaches have incorporated perspectives from the world's religious traditions. This lacuna appears in multiple dimensions: until recently, environmentalists have tended to ignore food and agriculture; food justice advocates have focused on food quantities, rather than its method of production; and few scholars of religion have considered agriculture. Faithbased perspectives, however, typically emphasize the dignity and sanctity of creation and offer holistic frameworks that integrate equity, economic, and environmental concerns, often called the three legs of sustainability. Faith-based perspectives can provide new paradigms through which to assess food, consumption, and production and the attendant social relations. For example, questions such as "Who is agriculture for?" and "Who do our technologies benefit?" can help us both assess our scientific, economic, and social approaches and better recognize the moral and religious dimensions of the world food crisis.

BIOSKETCH

Whitney Sanford received her BA in English and Philosophy from Bowdoin College and M.A. and PhD in Religious Studies from the University of Pennsylvania, specializing in north Indian devotional traditions. She teaches and researches in two main areas: Religion and Nature and Religions of Asia, and her current work lies at the intersection of religion, food (and agriculture), and social equity, focusing on South Asia.

Her current book project *Being the Change: What Gandhi Can Teach Us about Sustainability, Self-Sufficiency, and Nonviolence* explores Gandhi's influence on contemporary intentional communities in the United States. She has conducted fieldwork in Missouri, Iowa, California, and Florida how communities are translating aspects of Gandhian social thought, e.g., nonviolence, voluntary simplicity, and appropriate technologies into practice.

Her recent publication *Growing Stories from India: Religion and the Fate of Agriculture* (University Press of Kentucky, 2012) uses Hindu agricultural narratives to consider how we can provide food in a sustainable and just manner. She conducted fieldwork in Baldeo, India, examining narratives and practices related to Balaram, a deity associated with agriculture.

Her first book *Singing Krishna: Sound Becomes Sight in Paramanand's Poetry* (SUNY 2008) focuses on Braj devotional traditions and explores the role of devotional poetry in ritual practice. She has published articles in *JAAR, Journal of Agricultural and Environmental Ethics, International Journal of Hindu Studies, Worldviews* and *Alternative Krishnas,* edited by Guy Beck (SUNY Press, 2005).

THURSDAY EVENING

ENDING HUNGER REQUIRES A LEAP OF FAITH

William Clark

ABSTRACT

Hunger continues to be one of the most vexing problems on the globe. Even in relatively wealthy countries such as the United States the presence of hunger is not only persistent, it is growing.

Difficult to define, difficult to parse out the many contributing factors, and almost impossible to vanquish, hunger is a quintessential "wicked" problem. Millions of Americans—men, women and children—are unable to be confident of reliably securing their daily bread, even as hunger is condemned by all faiths and political parties. According to the USDA, nearly 15% of Americans are food insecure at least for some period of time each year.

In a society that provides public safety, public education, and, soon, public health care, the United States has failed in numerous attempts to address hunger. Today, the U.S. remains far from providing a minimum level of food security to its citizens.

This presentation will map out and propose a course of action that could eventually lead to a true end to hunger.

Explored will be the underpinnings of the paradox whereby many go hungry in a land of plenty. While hunger and poverty are mutually causative, they are, distinct problems, and the solution to hunger does not, ipso facto, require the simultaneous solution to poverty. This realization allows for the design and development of an effective hunger safety net despite the ongoing presence of chronic poverty. A total hunger safety net composed of a portfolio of effective, affordable, and scalable programs presents the means for ending hunger.

Means alone will fall short, without the will of the people; this necessitates a broad social movement effectively demanding the adoption and funding of these solutions.

Critical to the success of this plan is the engaged role of the faith community in providing the central moral force required to motivate widespread, humane social change. Leaders drawn from diverse faith communities will occupy a pivotal role in inspiring collective action.

BIOSKETCH

Bill Clark is the executive director of Philabundance, the Delaware Valley's largest hunger relief organization. Philabundance provides a full plate of services to close to 500 member agencies in nine counties, who serve approximately 65,000 people per week. A key factor in meeting its mission is the mobilization of broad

community involvement including the participation of over 15,000 volunteers each year.

Under Bill, Philabundance has created innovative programs that increase access to emergency food assistance and strengthen the hunger safety net in the Delaware Valley, including most recently, developing FARE & SQUARE, the nation's first nonprofit, full-service grocery store and a model for addressing the problem of lack of food access in food deserts.

Bill graduated from the University of Pennsylvania's Wharton School. He started his corporate career in the food industry and later started his own Chicago-based food manufacturing company, W.J. Clark and Co. Bill joined Philabundance in 2001.

FRIDAY MORNING

ALL-CONFERENCE DISCUSSION AND DECLARATION

CHAPEL, CHOIR, CANDLELIGHT

Activities of the day begin right after breakfast each morning with chapel. Candlelight services formally end the day, after the evening lecture.

CHAPEL SERVICES

8:30-9:15 A.M.

Our Chapel speaker for the week is **V. V. Raman**. Dr. Raman is emeritus professor of physics and humanities at the Rochester Institute of Technology. He is author of several books and articles on the historical and philosophical aspects of science and on science-religion issues. He is also the current president of IRAS.

This year's Chapel Talks will focus on the following topics:

- The Significance of Food
- Grains, Fruits, and Vegetables
- Food Chains
- Food in religious traditions
- Fasting and Famine
- Feasting and Celebrating

IRAS MUSIC

The IRAS Choir will meet to rehearse Sunday through Friday at 1:00 p.m. in the lounge. We look forward enthusiastically to making music together for some of the chapel services, the closing banquet, and the talent show. Choral singers and accomplished instrumentalists are warmly encouraged to participate in music-making at IRAS. Speak to Jane Penfield if you are interested but have doubts, and she will persuade you that they are misplaced.

The IRAS Choir will be directed by **Jane Penfield**. Jane is development manager at the Hartford Public Library and former executive director of the professional choir CONCORA. She has been a choral director for more than 30 years and is a past dean of the Greater Hartford Chapter of the American Guild of Organists. She studied

music at Mount Holyoke College (BA, 1976) and choral conducting at The Hartt School (MM, 1993).

Vaughn L. Watson, C.A.G.O., is a resident of Addison, Vermont. He is a member of the American Guild of Organists and the Organ Historical Society. In November 2012, Vaughn was appointed organist for three parishes of the Diocese of Ogdensburg, New York. These include St. Patrick's in Port Henry, All Saints in Mineville, and St. Mary's in Ticonderoga, where he also serves as Adult Choir Director and teacher in St. Mary's School. In January 2013, Vaughn was appointed accompanist for the Champlain Valley Chorale in Ticonderoga. He is active as an organ recitalist, having performed at St. Peter's Church, Grace Church, Park Avenue Methodist Church, St. Thomas Church, St. Patrick's Cathedral, and the Church of St. Mary the Virgin, all in New York City. On August 7th, Vaughn will present an organ recital, here in the chapel of Silver Bay.

IRAS CANDLELIGHT SERVICES

The traditional IRAS candlelight services, which originated at our long-time conference home at Star Island, have been brought to Silver Bay. These short contemplations will be held each evening from Saturday through Thursday, following the evening lectures. Leading services this year will be the following:

- Dan Solomon: A New Kosher
- Alison Earnhart: Mindfulness at the Dinner Table
- Maynard Moore: A New Worship Experience
- David & Katherine Nelson: Gratitude
- Roger Brown: Bread and Wine: When Eating Becomes Spiritual
- Pat Bennett: Stones to Bread

This year's candlelight organizer is Dan Solomon.

IRAS WORKSHOPS

Workshops are listed alphabetically by presenter.

THE TRANSITION TOWN MOVEMENT AS A MECHANISM FOR PROMOTING LOCAL FOOD SUSTAINABILITY

Sunday, 2:00-2:50

Roger Brown

ABSTRACT

The Transition Town movement began in Totnes, England in 2007, and has grown to include over 900 registered Transition Towns worldwide. Founded to address a local response to climate change and peak oil, the Transition Town movement has a strong focus on local and regional resilience and economic independence. While a major agenda of the Transition Town process focuses on energy use, a significant number of typical Transition Town activities are designed to promote the growth of local food programs.

This workshop will provide a summary of the Transition Town movement and its 12-step process toward energy independence. The second half will cite examples from small town Transition Town food sustainability programs in southern Vermont. Typical examples will include farmers' markets, farm to school programs, and community garden programs. Come and learn how to start a Transition Town group in your town. Come and get inspired to strengthen the local movement in your area.

BIOSKETCH

Roger Brown is a semiretired United Church of Christ minister, having served 12 churches around New England as an Intentional Interim Minister. He has also had a secular career in science and technology. Academically, he has an Master of Divinity from Andover Newton Theological School and an MS in physiology and biophysics from the University of Vermont. Rev. Brown grew up in Brattleboro, Vermont, and returned there late in his career after living in several regions of the US and England. He is the chairperson of the Centre Church Peace and Justice Committee, and a member of the Brattleboro Area Interfaith Initiative. Trained as a spiritual director by the Silver Dove Institute, he has a practice of offering individual spiritual direction. Hobbies include travel (ask him about a recent trip to China) and photography.

2030 – CRASH IN WORLD'S FOOD PRODUCTION: CAN NEW AGRICULTURE SAVE US?

Sunday, 2:00-2:50

Paul H Carr

ABSTRACT

Could the Arab Spring be a precursor to the 2030 crash in the world's food production per capita predicted in MIT's "Limits to Growth?" Published in 1972, its dire predictions from the population explosion and resource depletion have been accurate to date. Can new agriculture and birth-control technology save us in time?

As the result of severe drought in the summer of 2010, Russia banned grain exports causing prices to skyrocket. This contributed to the Arab Spring of 2011, particularly in Egypt. It must import large amounts of grain to feed its population which has quadrupled since 1950. Syria's 2006 to 2011 drought caused 800,000 farmers to leave their land and move to crowed urban areas. They and the unemployed youth from the population explosion, which started in 1980, are manning the present revolution.

New technology will be described. For example, the article "Wild Plants to the Rescue" published in the *American Scientist*, May–June 2013 describes research underway to develop perennial wheat. Its deeper roots could withstand severe draught from increased global warming and stabilize the soil erosion that was the source of the Dust Bowl.

BIOSKETCH

Paul H. Carr BS, MS MIT, Ph.D. physics Brandeis U. The Templeton Foundation awarded Paul grants for the philosophy courses "Science and Religion" he taught at UMass Lowell, 1998–2000. This inspired his book *Beauty in Science and Spirit* (2006, IRAS Seminar 2005.) From 1967 to 1995, Paul led a branch of the AF Research Laboratory, which investigated microwave ultrasound and SAW (surface acoustic waves). His over 80 scientific papers and 10 patents have contributed to new components for radar, TV, and cell phones. His home page is www.MirrorOfNature.org.

FOOD RECOVERY: CHALLENGES AND POTENTIAL ENHANCEMENTS

Thursday, 3:00-3:50

Steven M.Finn

ABSTRACT

In the aftermath of the financial crisis, food banks in the U.S. have been operating in an extremely difficult position: demand for their services from food insecure constituents continues to increase, while donations have in many cases declined as donor organizations have looked hard for efficiencies in order to "get lean." In addition, we now recognize the co-existence of obesity and hunger. Obesity rates have increased sharply in conjunction with the number of food insecure individuals, with serious implications for the long term health—and stability—of our nation.

How can we enhance food recovery efforts in the U.S. (i.e., increase donations) to help mitigate hunger in the short term? How can we maximize donations of highly nutritious food to simultaneously address obesity and poor nutrition? How can we increase the efficiency of food recovery? What are the key challenges and opportunities? What are some key takeaways from existing food recovery organizations that can be leveraged elsewhere? What opportunities exist for public-private partnerships?

This workshop session builds on the prior conference topic focusing on the importance of valuing our food and minimizing food waste. This session will begin with a brief PowerPoint deck designed to give the audience an overview of some of the key challenges facing food recovery organizations today as well as some current success stories. We will then "roll up our sleeves" and discuss ways to enhance food recovery efforts and provide highly nutritious food to those in need.

BIOSKETCH

See lecture listing for Wednesday evening.

FROM DARK ENERGY TO INFLATION AND DARK MATTER, TO THE BIG BANG AND THE BIRTH (AND DEATH) OF A UNIVERSE

Tuesday, 3:00-3:50

Herb Fried

ABSTRACT

A new, QED-based Model of Dark Energy is proposed, with an obvious extension to include Inflation and Dark Matter. One further, easily imaginable extension leads to a scenario which suggests the Big Bang origin of our universe.

BIOSKETCH

Herb Fried is an emeritus research professor of theoretical physics at Brown University, his professional home for some 49 years. He is the author of three books on various aspects of Functional Quantum Field Theory, and is now putting final touches on his fourth (and last!) book, containing new developments obtained by him and French colleagues during the last decade. The material of this Workshop is intended to be a nontechnical description of the latest of those developments.

QUARK GLUON PLASMA: WHAT HAPPENS TO ORDINARY MATTER AT 4 TRILLION DEGREES

Wednesday, 3:00-3:50

Barbara Jacak

ABSTRACT

In 2005, researchers at the Relativistic Heavy Ion Collider found a quark-gluon plasma or "quark soup" by heating nuclei to 150,000 times hotter than the center of the sun, a temperature not seen in this universe since a microsecond after the Big Bang. The plasma behaved strangely; particles leaving the crash site didn't disperse individually, as in a hot gas. Instead, they move in a highly coordinated fashion, acting like a liquid with very low or no viscosity. Viscosity is a measure of a liquid's resistance to flow—a poured puddle of viscous honey soon stops rippling outward, while less viscous water continues to spread. The RHIC soup flowed so well that it was dubbed "the perfect liquid." This astonishing discovery opened a debate as to just what is interacting inside the plasma.

String theory has had its ups and downs as a "theory of everything," but the perfect liquid piqued string theorists' interest. Quark soup—and also clouds of trapped atoms supercooled to a few billionths of a degree—are examples of strongly coupled systems, where the individual components interact with multiple partners. High-temperature superconductors and neutron stars are similarly strongly coupled, and it seems that gravity near a black hole is another example of such a system. String theory calculations describing the black hole scenario may explain how quarks move in a quark-gluon plasma and the dynamics of supercooled atoms, representing the first time that string theory was used to guide experiment.

BIOSKETCH

Barbara Jacak is a Distinguished Professor of Physics at Stony Brook University. She has been searching for experimental evidence of quark gluon plasma since 1986, first in experiments at CERN and then at Brookhaven National Lab. She holds a B.S. from U.C. Berkeley and a Ph.D. from Michigan State University. Following her Ph.D. she was an Oppenheimer Fellow at Los Alamos National Laboratory from 1984 to 1987. From 2007 to 2012, she served as Spokesperson of the PHENIX Collaboration at BNL's Relativistic Heavy Ion Collider. Barbara is a fellow of the American Physical Society and of the American Association for the Advancement of Science. She is a member of the National Academy of Sciences.

LIQUID LANDSCAPES: WHAT SHOULD WE BE DRINKING?

Sunday, 3:00-3:50

Hugh Joseph

ABSTRACT

Beverages are a major constituent of human diets. Over time, and with increasing affluence, the diversity of liquid options has widened considerably. In tandem, the content, sourcing, packaging, and marketing of beverages has become increasingly complex and generate multiple controversies associated with public health nutrition, environmental sustainability, and social justice.

Two contemporary battlefronts embody dilemmas over what we should (or should not) be drinking. Obesity concerns push efforts to tax soft drinks, control serving sizes, and otherwise constrain consumption. Soda drinkers may switch to bottled water, only to encounter campaigns to ban or limit its distribution. What's a thirsty person to do? Perhaps, to paraphrase Pollan's simplistic dietary dictum, we should "Drink water. Not too little. Mostly tap." But is this an equally crude response to a complex set of issues? In a \$50 billion+ per year industry, solutions are never that simple. A broader, more systemic analysis can yield better policies to address associated public health nutrition and environmental dimensions of sustainability, including beverage footprints, waste, obesity, and various socio-economic impacts in more industrialized and in lowincome countries.

This workshop reviews contradictions and limitations of current strategies, and contends that these debates are best framed in terms of overall beverage consumption, not pitting one specific product against the other. Following an overview of the controversies, we will discuss options that also incorporate concerns about global water security, corporate dominance of water and beverage markets, and whether overall industry efforts towards 'greening' the beverage sector are really just greenwashing.

BIOSKETCH

Hugh Joseph has spent his career developing communitybased food, agriculture, nutrition and food security initiatives at the local, regional and national levels. He cofounded the Community Food Security Coalition, the National Immigrant Farming Initiative, New England Sustainable Agriculture Working Group, the Northeast Food System Partnership, the Boston Food and Fitness Initiative, the Massachusetts Food Policy Alliance. He costarted USDA's Community Food Projects and the Farmers' Market Nutrition Program, and founded the New Entry Sustainable Farming Project—a nationally prominent beginning farmer initiative. His more recent work focuses on community food systems, with two emerging initiatives focusing on sustainable diets and sustainable communities. Joseph holds an MS and PhD in nutrition from Tufts University, where he is assistant professor (adjunct) in the Agriculture, Food and Environment Program of the Friedman School of Nutrition Science and Policy; teaching graduate courses on Food Systems and on Community Food Planning and Programs.

COMMUNICATION AS MUTUAL DEFERENCE: SYMMETRY AND TRUTH IN SCIENCE AND RELIGION

Jerry Josties

Thursday, 2:00-2:50

ABSTRACT

I believe that science and religion can be reconciled by interpreting science theologically. The basis for such interpretation is a simple symmetrical account of communication which involves mutual deference. Truth is available in the space of mutual deference (as I discuss in my article on the sacred on the IRAS website), and can be accessed as representation by science and as feeling by theology. Science's abstract integrated description can then be at least isomorphic to the underlying and explanatory theological Truth. In this scenario both science and religion can retain their view of Truth, but can also acknowledge/allow the other. Science provides magnificent precise description and prediction of phenomena which are amenable to measurement. Theology can provide an explanatory metanarrative that goes deeper than science but is necessarily much more poetic. It can also more readily account for the qualitative of color, beauty, love, morality, religious/meditative/spiritual experience, as well as free will. The arena of adjudication of these matters is neuroscience and its proper interpretation, which at the present time is maximally uncertain but which will become increasingly fascinating.

Mutual deference can be generalized to the societal level as the "circle of kindness," and can then be applied to societal cohesion. At this higher level the symmetry is complete when the circle is complete. I will ask the group to discuss its application to conflict resolution.

BIOSKETCH

Born in Hastings, Nebraska in 1937, attended high school in Sterling, Colorado, and graduated in astronomy from Swarthmore College in 1960. Studied philosophy in England for one year (1957-8) as Swarthmore's exchange student to the "Royal College," the University College of North Staffordshire (Princess Margaret was the nominal president of this college, which has now become Keele University). Graduate work in physics and astronomy at the U. of Chicago, Indiana U., George Washington U., and the U. of Maryland between 1960 and 1969, but received no higher degrees. I was employed by the U.S. Naval Observatory in Washington, DC from 1960 to 2002, and was a part-time instructor at Hood College in Frederick, MD in astronomy and cosmology from 1987 to 1994. My primary interests have always been the philosophy of

science and religion. I am a member of IRAS, CTNS (Center for Theology and Natural Science), CPS (Center for Process Studies), and Metanexus.

DELICIOUS DIETS FOR A SMALL, HOT PLANET
Peter Kelley

Wednesday, 3:00-3:50

ABSTRACT

Frances Moore Lappé introduced many Americans to the concept of eating lower on the food chain in the 1971 bestseller *Diet for a Small Planet*, the first major book to critique grain-fed meat production as wasteful and a contributor to global food scarcity. Her daughter Anna wrote *Hope's Edge* with her in 2003 about "food visionaries" making a difference around the world, and followed up with *Diet for a Hot Planet* in 2010. Both are leading thinkers about how to maintain a sense of hope in the future, as in Frances' latest *EcoMind: Changing the Way We Think, to Create the World We Want*. Workshop participants will learn about the top lessons of their work, and be invited to share recipes and review a typical week's worth of groceries and cooking, in a spirit of fun and adventures in delicious eating that makes you feel good.

BIOSKETCH

Peter Kelley has worked in communications for national environmental groups and clean energy causes for 20 years, after a previous career as a newspaper reporter. He is currently vice president for Public Affairs at the American Wind Energy Association in Washington, D.C. He has joined with friends on a project to cook every recipe in the cookbook, *Appetite for Reduction:* 125 Fast and Filling Low-Fat Vegan Recipes, by Isa Chandra Moskowitz.

SUPREME COURT DECISIONS DURING THE LAST YEAR

Monday, 2:00-2:50

Ted Laurenson

ABSTRACT

We will discuss a selected group of the Court's decisions during the last year, including (but not only) the Monsanto seed case.

BIOSKETCH

Ted Laurenson practices corporate and securities law in New York City, with a particular focus on investment funds and investment advisers. He is the immediate past president of IRAS and also currently serves as the vice president for development. His other roles in IRAS have included responsibility for newsletter conference write-ups, newsletter editor, Council member, secretary and co-chair of the 1999 and 2009 conferences. He likes to think his intellectual interests have no boundaries, but they have

focused on moral and political philosophy, psychology, and hard science fiction.

URBAN AGRICULTURE: A GRASS-ROOTS RESPONSE TO UNSUSTAINABLE TRENDS IN GLOBAL FOOD PRODUCTION

Wednesday, 2:00-2:50

Diggitt McLaughlin and Demi Miller

ABSTRACT

Residents of many once-thriving urban economic centers have been left behind by globalization. Access to affordable high-quality food has been one of the clear measures of these losses. The higher cost of low-quality convenience store foods—plus an alarming rise in rates of obesity, diabetes, learning disabilities, and chronic food allergies—lead many innovative residents in declining rust-belt communities to create their own food sources.

These new sources rely on family traditions and long-held memories of victory gardens. Experiments in permaculture, urban composting, and fish farming reinforce them. Food becomes available through new networks of cooperatives and farmers markets, barter arrangements and even alternative currencies as a core of urban activists reinvents inner-city food production. Their coalitions reflect significant racial, ethnic and class diversities as well.

Demi and Diggitt come to IRAS fresh from meeting with "urban ag" proponents in Minneapolis, Milwaukee, Chicago, Detroit, Youngstown, and other northern cities where residents are taking matters comestible into their own hands. They bring personal stories from local activists, as well as videos, URLs, related literature, and a hope that other attendees will share stories of their own work with community centered food production. Newtech solutions to today's urban food issues rely on handson alternatives to petroleum-intensive agriculture. The goal is creation of closed energy systems with no waste streams or externalities that are not also understood as resources to be reused.

BIOSKETCH

Diggitt has attended many Star Island IRAS conferences. In May she received an M.Div. degree from Meadville Lombard and is a candidate for UU ministry. She has been a medical acquisitions editor, a corporate head-hunter, a professional photographer, a botany and geology student, and an elected official. She led in the creation of both NYC's Midnight Run ministry to street homeless, and Yonkers' Beczak Environmental Education Center.

Demi received his BA in philosophy from Oberlin College. He taught high school science in inner-city Chicago, pursued graduate studies in geography at the University of Chicago, and spent four years doing intensive training in Gandhian nonviolence in Philadelphia. He is a

passionate dancer and singer-songwriter. He views his life's ministry as Quaker peace activism.

Demi and Diggitt grew up in Youngstown, Ohio (poster city for rust-belt decline), lived and worked in Chicago's south side, and now live in St. Paul.

A NATURALIST PARADIGM FOR THEOLOGICAL THINKING ABOUT THE DIVINE

Tuesday, 3:00-3:50

E. Maynard Moore

ABSTRACT

Charles Hartshorne (1897-2000) is widely known as the philosopher who spoke of God as love. One contemporary scholar, Professor John Cobb at Claremont School of Theology, where Philip Clayton is now Dean, calls Hartshorne "the Albert Einstein of Christian Theology." Hartshorne's career flourished in the wake of the development of quantum physics and the biological synthesis of genetics and evolution. This is the context in which he articulated and developed a theology without resort to supernaturalism. By implication, this "natural theology" might be the only approach in the 21st century for those of us who call ourselves Christian to ground our ethic of responsibility and to support policies of economic sustainability, including food production. Charles Hartshorne helps us to do that without internal contradictions, but with the integrity of personal experience intact.

The presentation will be in three parts, each with the opportunity for dialogue.

- Highlight the main contours of Hartshorne's thought with interfaith implications.
- Outline the key transitions in his long career, including empirical investigations.
- Suggest implications for economic sustainability, food production, and global justice.

BIOSKETCH

I am ordained United Methodist clergy (retired) and have been a member of the Baltimore-Washington Conference of the United Methodist Church in the National Capital Area for 30 years. During 2001–2002 I coordinated a series of sixteen formal sessions at Metropolitan Memorial United Methodist Church in Washington DC that involved prominent scientists, including seven Nobel Laureates, among them Dr. Charles Townes, Dr. Julius Axelrod, and Dr. William Phillips. I have been a member of IRAS since 2007, and presented workshops in 2009. I am a member of the American Scientific Affiliation; I participate in regular DoSER programs of the American Association for the Advancement of Science, and frequent program presented and sponsored by MetaNexus.

Currently I serve on the Board of Directors for the InterFaith Conference of Greater Washington DC, one of the nation's oldest such organizations, now embracing eleven different faith traditions in the nation's capital. In addition, I maintain active memberships in the Center for Process Theology at Claremont Graduate Seminary in California, and the Churches' Center for Theology and Public Policy in Washington DC. I have completed work for two graduate degrees from S.M.U., an M. A. from the University of Chicago Divinity School, and the Ph.D. in Higher Education/Adult Education at the Union Graduate Institute & University in Cincinnati, Ohio.

PLEIN AIR PAINT-ALONG

Sunday-Thursday, 2:00-4:00

Jane Penfield

ABSTRACT

This will be an informal "paint-along." It will not be a structured class, but demonstration and instruction will be gladly given as needed. Weather permitting, we will paint "en plein air" the beautiful scenery around Silver Bay. We may also explore still life with food and other found objects. Anyone is welcome—all levels and all media. Bring your own setup and materials, or drawing and watercolor supplies are available from Watson Arts Center, located down the path behind Morse.

Please meet on the front porch of The Inn at 5 minutes before 2:00 each day, and we'll take it from there.

BIOSKETCH

Jane Penfield is an award-winning pastel artist, who has spent most of her life doing too many other things for a living. In 2010 she made the decision to give up all but her primary job, her husband and her grandchildren, in order to devote as much time as possible to painting. She is a member of the Lyme Art Association, the Connecticut Pastel Society, and Connecticut Plein Air Painters.

CARETAKER FARM & CRAFTING A BETTER WAY OF INHABITING THE LAND

Thursday, 2:00-2:50

Samuel Smith

ABSTRACT

Like people elsewhere, people here need to craft better ways of inhabiting the land. They need a clearer sense of the rightful human role in the natural order and what it means to dwell in a place permanently, in an ecologically sound, ethically mature way. Eric T. Freyfogle, *Bounded People, Boundless Lands* (1998, xiv)

The workshop will cover a short history of Caretaker Farm and its shared contribution to the work of people around the world to create a resilient food and agriculture system that is regionally focused, and that builds healthy connections between people and the earth. This workshop also includes the story of some of the radical initiatives that Caretaker Farm and other farms and communities have taken (and will take) to secure equitable and long-term access to land for the farmers who will feed us, while protecting our soil, air and water.

BIOSKETCH

Sam, along with his wife, Elizabeth, are the founders of Caretaker Farm, one of the oldest organic farms in New England and a pioneering and enduring model for Community Supported Agriculture and farming apprenticeships. In 2006, Sam and Elizabeth transformed Caretaker Farm into one of the first farm-based Community Land Trusts in the country, thus assuring that it would remain an affordable working farm in perpetuity.

NAVIGATING WORLD VIEWS

Monday, 3:00-3:50

John A Teske and Whitney Bauman

ABSTRACT

Human groupings have always held different and often irreconcilable world views. Nevertheless we are increasingly and inescapably interdependent with each other, and thus our ability to recognize and honestly address these differences, and to share our existential dilemmas, may be crucial to the future of the planet and to ongoing human flourishing. It seems unlikely that this can be achieved through the imposition of any one particular hegemony - including the secular scientific one, and it is out of this belief that the 'Navigating Worldviews' project arises. Its aim is to explore, through rational, civil discourse, minimally invasive ways of achieving rapprochement; and of facilitating, through such discourse, the development of cooperation, especially in areas crucial to our survival as a species. The project addresses four key areas:

- The extent to which these metaphysical commitments, though irresolvable or even incommensurate, are responses to existential questions common to all human.
- Whether committed representatives of varying worldviews can come to understand their different views as set in a framework of plural and diverse meaning-making systems, within which each has its own contribution to make to a planetary identity?
- The extent to which representatives with deep commitments to quite different worldviews can cooperate to understand that in a pluralistic world they are on an even playing field?
- The resources which our philosophical and religious traditions offer us for thinking about difference.

Earlier this year, the project held its first conference—On World Religions. Diversity, Not Dissension—which included

presentations by IRASians Whitney, John, and Anindita. This workshop is an informal summary and discussion of the New Delhi conference and of how the project is evolving.

BIOSKETCH

Whitney Bauman is assistant professor of religious studies at Florida International University in Miami. He is the author of *Theology, Creation and Environmental Ethics* (Routledge 2009) and *Religion, Science, and Globalization: The Emergence of a Planetary Community* (Columbia University Press, Forthcoming 2013). He is also co-editor and author of *Inherited Land: The Changing Grounds of Religion and Ecology* (Wipf and Stock 2011) and *Grounding Religion: A Field-guide to the Study of Religion and Ecology* (Routledge 2011).

John A. Teske is professor of psychology at Elizabethtown College in Elizabethtown, Pennsylvania. Relevant publications: "Externalism, Relational Selves, and Redemptive Relationships" (2011) and "Neuromythology" (2006), in *Zygon: Journal of Religion and Science.* "The Cognitive Paradoxes of Love and Faith," (2012), and "Bindings of Will" (2007), in *Studies in Science and Theology.* He was IRAS President 2005–2008, and he was coorganizer, with Ted Laurenson, of "The Mythic Reality of the Autonomous Individual," at The Chautauqua Institution in New York, in 2009. He was recently elected yo membership in the International Society for Science and Religion.

YES, IN YOUR BACKYARD!

Emily Troxell

Sunday, 3:00-3:50

ABSTRACT

We recognize that diverse groups of human beings have As we look at how food will control our world in the near future, it becomes increasingly clear that understanding current information and using resulting practices is of vital importance. While there is adequate information on many aspects of small farm production (in your backyard), there is additional information that will result in greater product quantity and quality.

- The nature of soil: fungal importance, soil composition, amendments mulch, fertilizers, etc., bees and other pollinators.
- Techniques nontraditional: seed saving, seed banks, use of heirloom seeds and speedy germination, vermiculture and direct composting.
- Community Garden Movement educational opportunities.
- Storing the overabundance and resource lists: Please bring recipes and/or processes that allow long-term storage of food. Also bring information on specialized plant sources or programs related to food distribution that would be of general interest. These

resources will be compiled and made available to any IRAS member.

BIOSKETCH

My professional career includes two California teaching credentials: Vocational Home Economics Education and Special Education-Learning Handicapped. For many years I taught in both the public school system and the local community college. On a dare, I became a National Park Service Interpreter. Here I learned that teaching—especially about our natural world—was the love of my teaching experience. This has evolved into my interest in food production on a very small scale and a study of factors that drive plant communities. I would like to share what I have learned with other IRAS people.

THE EVOLUTIONARY DEVELOPMENT OF ETHICS

Gene Troxell

Monday, 2:00–2:50 abstract

- 1. Distinction between rule ethics and interpersonal ethics.
- 2. The most important rules of the Ten Commandments (Do not kill other members of your own social group. Do not steal. Do not lie. etc.) were incorporated into the social behavior of our primate ancestors for hundreds of thousands of years before enough language, intelligence, etc. had developed for them to be identified as rules. "Do not kill other members of your own social group" is essential for all social living by any type of social animal.
- 3. As the social systems of the human ancestors became more complicated and more sophisticated individual social institutions were developed, such as that bringing personal possessions into existence. This was an extremely important development since it was necessary for the future development of a basic economic system and thus for the development of specialization. I will go much further into such developments as these.
- 4. But the main point is that such social institutions require certain behaviors on the part of the members of the society. For example, there can be no such thing as personal possessions without a rule (behavioral restriction) against stealing. This is also the case with other social institutions.
- 5. Without these social institutions the social systems would not have been sophisticated enough for peculiarly human characteristics to develop.

BIOSKETCH

Eugene A Troxell has been a member of IRAS for nine or ten years. After graduating from high school Troxell joined the Oregon province of the Society of Jesus. When he left the Jesuits five years later he had an undergraduate degree in classics.

Troxell earned his Ph.D. in philosophy at the University of Chicago in 1966. He then went on to San Diego State University, where he taught philosophy for 34 years. Major philosophic interests were the later philosophy of Wittgenstein and ethics, particularly environmental ethics.

Major publications include:

- Making Sense of Things: An Invitation to Philosophy, coauthored with William Snyder (a colleague at SDSU), published in 1976 by St. Martin's Press.
- "Teaching Wittgenstein's Later Philosophy: Noticing What is Always Before One's Eyes" Teaching Philosophy, Vol 19, 1996
- "On Having a Sense of Responsibility" Journal of Social Philosophy, Vol 25, 1994

HOW SHOULD WE USE EVIDENCE TO DIRECT SOCIAL POLICY?

Paul Ulbrich

Monday, 3:00-3:50

ABSTRACT

This workshop will explore some of the many ways that different forms of evidence have been used to imply causation and direct our actions. It will examine how different disciplines have used evidence to support their theories of causations. We will ask how "evidence" might be seen and compared from different perspectives such as: information theory, correlation, logic, mathematics, measurement, scientific methods, statistics, traditions, feelings of certainty, legal methods and quantum phenomena. Can different theories of evidence be compared using similar criteria for validity? What evidences are both essential and sufficient to determine causations? How has evidence been misused? What errors can occur in the process of utilizing evidence? What are our ethical obligations to determine causations and its consequences? How might evidence be better applied in the future? How might one create and apply spectrums of evidence?

BIOSKETCH

Paul Ulbrich is a retired emergency physician who is actively pursuing policy interventions to improve patient care. Paul, with his collaborator Malay Mirahda of Bangladesh, have recently created a not-for-profit organization, "Health Through Evidence" to facilitate the use of evidence in patient care.

IRAS TALKSHOP AND BITESIZE

There is no IRAS Seminar this year as we did not have a suitable manuscript to discuss, but instead we are trying out two different sorts of shorter session: IRAS TalkShop and IRAS BiteSize. The former are round table discussions in which a member will give a very brief presentation on an issue relating to the present health or future development of IRAS and then moderate a forum in which others can share their own thoughts and suggestions. The latter are opportunities for members (or other conferees) to acquaint the IRAS Community with their current work or areas of interest—either in the form of a concise précis of a project/paper (typically a 5- or 6-minute presentation with a maximum of one slide), or a slightly longer account of a work in progress on which they would value the opportunity for feedback. We currently have two TalkShops and one Bitesize session scheduled. If you would like to take advantage of the latter, or propose and lead an extra TalkShop session in one of our empty timetable slots, please speak to Pat Bennett.

BOOTH-SHAPLEY FELLOWSHIPS

The Booth-Shapley Fellowship honors the first two presidents of IRAS, Edwin Prince Booth and Harlow Shapley. Its goal is to support scholars who are at the post doctoral or assistant professor levels. Fellows will attend and present their work in the Poster Session at the annual IRAS conference.

Booth (1898–1969) was professor of historical theology at the Boston University School of Theology, author of a book on Martin Luther, and an ordained Methodist minister. In 1950 he helped organize and led an annual interfaith conference called the "Coming Great Church" on Star Island. When this became the annual conference of IRAS, Booth became the first president (1954–1959). He also gave the morning chapel talks at IRAS for 1954–1965, except for 1960 when Shapley was a speaker.

Shapley (1885–1972) was professor of astronomy at Harvard University and the Director of the Harvard College Observatory. Early in his career he deduced that our solar system was in one of the spiral arms of the Milky Way Galaxy, two-thirds of the galaxy radius from the center. Shapley wrote several books in astronomy including "Of Stars and Men." He was the second president of IRAS (1960–62) and at early conferences led the late night "owl session" discussions.

Shapely edited a volume of early IRAS lectures as *Science Ponders Religion* (New York: Appleton-Century-Crofts, 1960). Booth edited *Religion Ponders Science* (New York: Appleton-Century, 1964).

This year we are delighted to have four Booth-Shapley Fellows: Nancy Menning, Mark Causey, Tom O'Donnell and Mladen Turk. They will be presenting their posters on Monday and Wednesday afternoon and the abstracts for these, along with their biosketches, can be found in the section on Posters.

STUDENT SCHOLARS

Student scholars assist the conference coordinator by performing certain essential tasks related to running the conference. Scholars are typically pursuing a degree, are first-time attendees of the IRAS summer conference, and have interests congruent with the goals and purposes of IRAS. This year we are pleased to have four Student Scholars: Chris Anderson, Piper Dumont, Hye Mi Anh, and Stefani Ruper. Their biosketches follow.

Hye Mi Ahn. With constant curiosity for intercultural experiences and relentlessly working for positive social change, I empower individuals and grassroots organizations as a development adviser to reach their goals. I have successfully worked with diverse groups of people, from European senior citizens in Moldova to African youth in Cameroon by seamlessly integrating into their native cultures, assessing local needs, and contributing to innovative, holistic solutions to local issues, which I will do with greater impact after getting my M.A. in Sustainable Development at School for International Training (SIT) Graduate Institute in Brattleboro, Vermont. My interests are in global health and climate change and I am skilled at project writing and organizational development.

Chris Anderson. I am currently a Masters of Arts candidate at the Lutheran School of Theology at Chicago where I am specializing in Environmental Ministry as well as Science and Religion. My thesis research is currently oriented towards developing an interdisciplinary environmental theology that incorporates scientific insights from ecology and agronomy with scriptural and systematic theology. I earned my B.A. from the University of Illinois at Urbana-Champaign in 2010, where I doublemajored in Religious Studies and History. In conjunction with the academic program at LSTC, I am working on energy efficiency upgrades with the seminary's Green Zone project. I also participate in the planning team for next year's theme around food issues. In April of 2013 I was trained as a Hunger Leader by the ELCA World Hunger division at their Ethics of Eating conference. We toured agricultural production sites, learned about issues in production and distribution, and analyzed policy points such as the Farm Bill. I perform several tasks for the Zygon Center for Religion and Science including helping coordinate last year's 5th Student Symposium. I won first place in the ZCRS Epic of Creation poster contest in 2012. I also edit *The Door*, the student newspaper at the Lutheran School of Theology.

Piper Dumont. As an educator and agrarian, Piper cultivates connections with the land and the people living on it. Equipped with a B.A. in Human Ecology from College of the Atlantic and an enduring sense of wonder, Piper's passions eventually led her to Columbia University's Teachers College to earn a master's in International Educational Development with a focus in Peace Education. She is now finishing a doctorate at Teachers College, where she is analyzing food education and knowledge through the lens of families and communities as educators and popular culture influences. She just completed her tenure as the founding director of Union Theological Seminary's initiative, the Edible Churchyard, that incorporates ecological and food justice into Union's programming, including converting parts of their grounds and rooftops into organic growing spaces. She's currently applying her studies directing youth programming at Holcomb Farm in Granby, CT as well as coordinating their Fresh Access program (in collaboration with the Hartford Food System) distributing over 12,000lbs of fresh produce to food insecure communities in the Greater Hartford area.

Stefani Ruper. Stefani is currently finishing an MTS degree at Boston University, where she studies religious naturalism, axiology, ontology, and most specifically the role ontology plays in worldviews and value systems. She is working on PhD applications in the philosophy of religion for this fall. She also has a side job as a "health advocate," in which she advocates female empowerment through naturalistic perspectives and evolutionary science for the benefit of women's health, and is the author of the forthcoming *Sexy by Nature*. In her free time, Stefani is a professional salsa dancer.

POSTER SESSIONS

This year we are delighted to have eight poster presentations, full details of which are given below. Posters will be displayed in the Gullen Lounge from Monday afternoon onwards and presenters will be available to discuss their posters on Monday afternoon and Wednesday afternoon between 2:00 and 5:00 PM. Posters and handouts will also become available via the website once the sessions are underway. The poster coordinator is Pat Bennett.

FOOD, RELIGION, AND THE EMBEDDED MIND

Chris Anderson

ABSTRACT

The relationship between food and religion constitutes one of the fundamental human activities. Each is elemental in and of themselves and they offer an ideal testing ground for the embedded theory of situated cognition. As humans struggle to determine what constitutes the human mind, the embedded theory has risen as one of the three popular working models. Using food ways and religious practices to assess the theory demonstrates that it is indeed a rich resource for self-reflection.

By examining both rural and urban food systems, this study analyzes geographical reports that suggest that the food ways of a given context contribute to the individual mind's perception of that area and their place within it. Furthermore, the studies suggest that by engaging the food system of a given location, the mind is more deeply embedded in that place through increased civil engagement.

This study also addresses the deeply embedded relationship between food and religion in our biblical tradition. The contextual development of the biblical sources within a Mediterranean agricultural society has influenced our theological development and has contributed to our concept of the divine.

Finally, it also analyzes some of the specific points of intersection between food and religion and discusses how the interplay of the two is also historically and culturally dependent.

By analyzing the relationship between food, religion, and the embedded mind, Christian leaders can gain a more nuanced appreciation of the various factors related to the individual's perception of their religious system and food ways. This appreciation can inform creative individual ethics.

BIOSKETCH

See the listing under Student Scholars

WHY VEGETARIANISM NOW?

Mark Causey

ABSTRACT

This poster will explore the theme of why a plant-based diet is a needed religious and ethical response to our current environmental and food-justice difficulties. Beyond just the animal rights issue, I want to connect the importance of this diet to issues of climate change and world hunger. The poster will contain data drawn from several recent studies on the climate impact of modern animal production practices as well as drawing the direct link between these practices and human hunger, deforestation, and so on. Drawing on the work of writers such as Raj Patel, Anna Lappé, and recent UN studies, I will make the case that whereas in the past there was perhaps some justification for a carnivorous diet, today given the nature and seriousness of the challenges we face we need to move to a plant-based diet as the appropriate religious and ethical response. I will also include some information regarding the animal cruelty aspect of modern animal production practices, arguing that an ethical and religious response of compassion is required to eliminate the unnecessary and excessive suffering of factory-farmed animals. Here I will draw on the work of Peter Singer and Tom Regan, but I want to move the debate more towards a deep ecological perspective which I take to be broader than the "rights" or "sentience" based arguments. want to connect the themes of compassion both for animals and for ecosystems as a whole in arguing for the vegetarian lifestyle.

BIOSKETCH

I am currently a limited-term assistant professor in the Philosophy and Liberal Studies department at Georgia College & State University. I have my Ph.D. in Philosophy from Emory University (2010). At Georgia College I teach undergraduate courses on food and environmental ethics. My Ethics and What We Eat course explores issues of world hunger, and the environmental costs of modern agricultural and food distribution practices. We also touch on various health-related issues around our modern food system. My main research areas are in this area of food, animal and environmental ethics. I also have a Master of Divinity degree from the Southern Baptist Theological Seminary (I grew up Southern Baptist but am now a Unitarian Universalist). I consider myself a Naturalistic

Pantheist and a supporter of Deep Ecology. I am currently working on a project to reconcile the debate between the animal rights/liberation camp on the one hand and the Deep Ecology movement on the other. I have an article on Nietzsche and anthropocentrism currently under review with the *Environmental Ethics* journal.

THE TRADITIONAL GRACE REVISITED: GIVING THANKS FOR OUR FOOD IN AN ERA OF AGRIBUSINESS

David A Larrabee

ABSTRACT

Fewer than 2 percent of Americans farm for a living today, and only 17 percent of Americans now live in rural areas. It is not surprising that many of us have lost an emotional connection with the soil, crops, and farm animals. Our experience of food no longer relates to its once being a living entity. We no longer know how farm animal are treated or if farming practices hurt the soil. Many of the details of agribusiness are deliberately hidden from public scrutiny.

It takes a sustained effort to change one's lifestyle so that our food choices favor "ethical foods" that 1) are ecologically friendly, 2) minimize the pain and suffering of animals, 3) are healthy, 4) avoid farming practices that take advantage of the poorest in society, and 5) are grown locally and/or are slave free and fair trade. One way of maintaining this effort is to revamp the idea of blessing one's food to include being thankful when you can consume "ethical food" and apologetic when such "ethical food" is not available or not chosen. Like the chef who describes food that is prepared for the table, grace could include the description of the nature of the food we are about to consume (free-range chicken, organically grown potatoes, etc.).

Rethinking grace can help us revise our purchasing decisions, by asking ourselves "what will we say when we ask for a blessing on this food?" Such a rethinking is easily compatible with most religious traditions and also within an atheistic tradition.

BIOSKETCH

Born in Boston, Mass. (1955), raised in central NJ, and a graduate of Cornell University (BS 1976, MS 1978, PhD 1980) Professor Larrabee did post-graduate work at Princeton University Plasma Physics Laboratory where he later became a member of the research staff. He worked in the electronics industry where he rose to the level of acting VP-engineering and became interested in the interaction of radio waves with electrical apparatus. While in industry he obtained an MBA from the Philadelphia College of Textiles and Science. Prof. Larrabee left industry to return to academia in 1995 and is now a professor in the physics department at East Stroudsburg University.

His research interests have included; high power particle beams, plasma physics, astrophysics, electromagnetic compatibility and the relationships between science and religion. He has presented a paper at the Metanexus institute on emergence and given several talks on Isaac Newton and Intelligent Design.

Professor Larrabee works with students testing the ability of cables and enclosures to shield electronics from the effects of radio waves in ESU's student constructed "Electromagnetic Reverberation Chamber." He is a senior member of the IEEE and served as the secretary, vice-chair and chair of the IEEE Lehigh Valley section.

Professor Larrabee is currently pursuing an M.A. in Theology from Union Theological Seminary in NYC. He is attending Union part time and has completed approximately 75% of the program. He plans on writing his thesis on a theological response to the distributive justice issues raised by climate change. David was raised in a small American Baptist Church and is currently a member the Presbyterian (USA) church. While attending Cornell University he was a member of the "eco-justice task force" which examined issues of economics, ecology, social and distributive justice and how individuals as well as the church should respond to those issues. This remains an active concern and driving force in David's studies and theology.

RECOVERING ABRAHAMIC VIRTUES: HOSPITALITY IN TIMES OF CLIMATE CHANGE

Nancy Menning

ABSTRACT

According to Bill McKibben, our planet is no longer the hospitable place it once was; we need new ways of living on a changed and changing planet. The dislocations and uncertainties associated with climate change produce challenges for accessing food and water resources essential to survival. In this project I argue for the recovery of the virtue of hospitality in the Abrahamic traditions as a means of adequately and faithfully responding to the ongoing and pending challenges of global climate change. While climate change ethics are often articulated in deontological or consequentialist terms, I assert the central role of virtue ethics for both characterizing and motivating an appropriate response. A virtue is a disposition to act and feel in a certain way, guided by reason (prudence) between deficiency and excess, with careful consideration of the particularities of a situation. Hospitality, as a virtue, is the disposition to graciously (feeling) welcome (action) another into one's home. My project begins by considering interpretations of biblical narratives of hospitality. I then analyze cultural practices of hospitality in the three Abrahamic faiths, evaluating the extent to which economic and environmental conditions might explain the relevance of this virtue at any particular moment. I conclude with reflections about how and to what end we might recover

virtues of hospitality within Jewish, Christian, and Islamic cultures over the next several decades, to the benefit of all those who are harmed by global climate change.

BIOSKETCH

Nancy Menning is assistant professor of World Religions at Ithaca College where she teaches on death and immortality, the Abrahamic traditions, and various topics in the field of religion and ecology. Having come to religious studies as a tenure home after both academic and professional work in forestry and environmental studies, Nancy's teaching and scholarship seeks to leverage the religious imagination to contribute to human and ecological flourishing. Her dissertation, Reading Nature Religiously: Lectio Divina, Environmental Ethics, and the Literary Nonfiction of Terry Tempest Williams (U of Iowa, 2010), articulated a process of reading nature religiously (adapted from the spiritual reading practice of lectio divina) that can serve as the foundation for an ethical relationship with the more-than-human world. Her recent work has emphasized environmental mourning and the ethical implications of alternative climate change narratives. This fall Nancy launches a civic engagement project that works with religiously identified, spiritually inclined, and otherwise-interested residents of the Finger Lakes region of upstate New York to collectively develop, strengthen, and/or recover a sense of place grounded in the religious imagination.

FROM ISLANDS TO ARCHIPELAGOS Tom O'Donnell

ABSTRACT

The University City District is a small neighborhood in Philadelphia. But it disposes of about 1,750,000 pounds of wholesome food every month. Most of this goes to the landfill, some down garbage disposals and some, although precious little, is gracefully placed on the plates of food insecure people or is transformed locally into soil. Much more could be done. While over 70,000,000,000 pounds of food goes to waste nationally each year, 42,000,000 people in America face food insecurity. A silent tragedy persists.

Yet, while numerous volunteers are hard at work with community groups, churches, and schools to reduce this waste, they tend to function as though they are on separate islands. If only these islands of effort could be coordinated into an interconnected archipelago, more of this potentially wasted food could be directed towards hungry families.

We have a vision for a new paradigm to solve this problem. All too often, socially responsible initiatives ignore the critical assistance that can be provided by an involved business community. By bridging the space between social consciousness and the needs of enterprise, initiatives like food waste reduction can tap into a

powerful infrastructure that can potentially feed tens of thousands.

With this vision in hand, we established the first pilot program of the *Urban Model for Surplus Food Recovery* in University City, where for-profit businesses provide some composting services on a scale from homes to hospitals and where a small food donation program among local businesses already exists. Neighborhood participation was also vital, and we couldn't have met success without the community's demonstrated willingness to strengthen and nurture this new economic, social, and environmental paradigm. We foresee the possibility of a new ethic based on a concept of the economics-of-goodness.

INCORPORATING PEDAGOGY IN CRITICAL ISSUES RELATED TO THE COCOA INDUSTRY, AN ECUADORIAN FIELD STUDY

Deanna L Pucciarelli

ABSTRACT

The cocoa supply chain is fraught with economic and social injustices. This poster will document how incorporating students into problem-solving exercises in the field can provide a reciprocal benefit to Ecuadorian cocoa farmers and students alike. The presenter will take students to Ecuador in May 2013 to visit Fair Trade niche producers and large-scale cocoa farms. A student learning outcome includes partnering with a supply-chain local to discuss a pressing problem and create a plan to begin to address the issue. Back in the United States an immersive learning course will execute the plan with follow-up assessment in May 2014.

BIOSKETCH

Dr Pucciarelli has been studying the cocoa supply chain for the past 10 years. She first investigated the historical medicinal use of cocoa from its early use in Mesoamerica to the present. She has presented her chocolate related research at the American History Museum, National Academy of Sciences, at symposia in Australia, New Zealand, Germany and recently in Cameroon, Africa. Her students have assisted in raising funds for a Cocoa Research Institute in Cameroon in partnership with Project Hope and Fairness. She has published two book chapters in an anthology *Chocolate: History, Culture and Heritage.*

THE YOGA OF EATING: FOOD AS MEANS OF SALVATION IN THE GAUDIYA VAISNAVA TRADITION

Alysia I Radder

ABSTRACT

Members of the International Society for Krishna Consciousness (ISKCON), a branch of Gaudiya Vaisnavism more commonly known as the Hare Krishna movement, often refer to their faith as the "kitchen religion." Feeding the public free or low-cost vegetarian meals are distinguishable facets of this movement. However, the founder of ISKCON, A.C. Bhaktivedanta Swami, did not merely encourage his disciples to become vegetarians. Rather, he taught them to become "prasadarians" or those who only accept sanctified foods. What distinguishes prasad from standard vegetarian fare is a ritual process practiced for over a millennia in South Asian Hindu traditions, in which foodstuffs are prepared and offered in devotion to the deity of Krishna before partaking in what becomes the deity's remnants or prasad, literally "mercy" or "grace." In this way, ordinary vegetarian foodstuffs are transformed into spiritualized, karma-free fare, the consumption of which, according to various Vaisnava scriptures, is not only necessary to reawaken the soul's original relationship with God but has the potential to immediately award liberation.

In the late 1960s, the Hindu ritual of prasad encountered a dramatic change in context when it was introduced, transformed, and adapted into the Western world under the guidance of Bhaktivedanta Swami, one of the earliest ambassadors of the Gaudiya Vaisnava tradition in the West. While pioneering an international movement within six different continents and simultaneously encountering innumerable varieties of regional cuisines, how did Bhaktivedanta Swami determine what ingredients and recipes were ritually offerable and unofferable and, ultimately, pleasurable and acceptable for Krishna? In addition to outlining the modern gastro-theology of prasad as espoused by Bhaktivedanta Swami, my presentation briefly traces the historical development of the ritual of prasad. By examining prominent texts and teachers within the Gaudiya Vaianava tradition, we gain an understanding of one of the world's oldest vegetarian societies whose food rituals reflect a complex network of theological, ecological, social, economical, and nutritional values.

BIOSKETCH

Alysia Radder is an M.A. student at the University of Florida (UF). Having graduated with a B.S. in Environmental Science from SUNY Plattsburgh, she later shifted her focus towards the humanities in order to further develop the critical thinking skills necessary to address environmental issues in their fullness. Her combined interests include Hinduism and ecology, religion & food, and environmental ethics. In addition to her graduate work in the Religion Department, she is pursuing a minor in Nonprofit Organizational Leadership. Her thesis research explores food theology and the ritual of prasad within the International Society for Krishna Consciousness (ISKCON), documents its exportation to the West, and examines how the assessment of acceptable ingredients used in its preparation has fluctuated throughout the history of Gaudiya Vaisnavism. Alysia is currently the Outreach Director for UF's Center for the Study of Hindu Traditions (CHiTra) as well as an academic advisor for the Bhumi Project, an educational

campaign dedicated to the advancement of ecological awareness within Hindu communities throughout the world. The Bhumi Project is facilitated by the Oxford Centre for Hindu Studies in partnership with the Alliance of Religions and Conservation.

THE TECHNO-HUMAN CONDITION IN RELIGIOUS CONTEXT

Mladen Turk

ABSTRACT

In recent history, technological advances outpaced religious and philosophical reflections about their meaning and this trend rendered much religious thought somewhat irrelevant. It seems that the new technologies are first realized and only then thought of in terms of their transformative power on human societies and our environment. This is not for lack of trying. It is simply impossible to predict the impact that the various technologies developed in recent history would have on human societies, let alone have the foresight to provide those technological advances with meaning.

With only rare exceptions, this trend seems to have produced religious responses that at best call for caution and are more often simply antitechnological. I am interested in figuring out ways of thinking about technology that would integrate it into our answers about its meaning and, in that way, religious contributions would be more constructive than they are at present. Religious responses to various contexts in which previous human societies found themselves were often characterized with imagining possibilities that seemed to be beyond what was obvious. This and other similar characteristics of traditional religious thought can potentially be of great importance in advancing useful responses to our techno-human condition. My poster addresses this issue.

BIOSKETCH

I teach religious studies at Elmhurst College. My area of specialization is religion and science, with special focus on scientific theories of religion and methodology fo the study of religion, but I teach broadly in the areas of history of Christianity in the 19th and 20th centuries and the religious traditions of South Asia. I studied philosophy, ethnology, Indology, and theology in Zagreb, Croatia; philosophy of religion at the University of Bergen, Norway; and religion and science at the Lutheran School of Theology at Chicago, Zygon Center for Religion and Science. Once a year I take students overseas for a month-long course to study the religions of India. I published a textbook in philosophy, Logic, Exercises and Solutions, 2nd edition (1995) and I have a forthcoming book on evolutionary and cognitive theories of religion. I am a past president of the American Theological Society (Midwest Division).

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We are also grateful for our conferees, many of whom volunteer for particular activities during the week, and all who participate in so many ways. We appreciate all the wonderful ideas and suggestions contributed, both those we were able to incorporate into the conference and those we could not.

We express our appreciation to the Silver Bay staff for the competent, courteous, and efficient way they take care of our needs and help make our week at Silver Bay so rewarding.

59th Annual IRAS Conference, Scientific, Spiritual, and Moral Challenges in Solving the World Food Crisis Saturday, July 27 thru Friday, August 3, 2013

Closing Party			, Dancing, and Socializ	Snacks, Conversations, Dancing, and Socializing				9:40 P.M?
	'Stones to Bread' Bennett	'Bread and Wine: When Eating becomes Spiritual' Brown	'Gratitude' Nelson	'A New Worship Experience' Moore	'Mindfulness at the Dinner Table' Earnhart	'A New Kosher' Solomon	Candlelight (<i>Chapel</i>)	9:10–9:40 P.M.
Variety Show (Auditorium)	Bill Clark Ending Hunger Requires a Leap of Faith	Steven Finn Global Food Waste	Sehdev Kumar Bioprospecting or Biopiracy	Ellen Messer Human Right to Food	Sandra Hassink Obesity and Undernutrition	Opening Panel (Morse Hall)	Lectures Break Discussion (Morse)	7:00-7:55 P.M. 7:55-8:10 P.M. 8:10-9:00 P.M.
		ning Activities	ervices, and Late Ever	Evening Activities: Plenary Lectures, Candlelight Services, and Late Evening Activities	ing Activities: Plenary	Even		
Banquet (Gullen Lounge)							Dinner (Main Cafeteria)	5:30-7:00 P.M.
			Honoring lan Barbour (Gullen Lounge)				Happy Hour	4:30–5:30 P.M.
	Finn (Morse Hall)	Poster Session (Gullen Lounge) Jacak (Morse) Kelley (Boathouse)	Moore (Boathouse) Fried (Morse)	Poster Session (Gullen Lounge) Ulbrich (Boathouse) Teske/Bauman (Morse)	E Troxell (Boathouse) Joseph (Morse)	Orientation	Session II Workshops Posters (3:30-5:00)	3:00–3:50 P.M.
Memorial Service (Chapel)	Smith (Boathouse) Josties (Trinity) Penfield (Inn porch)	Poster Session (Gullen Lounge) McLaughlin/Miller (Boathouse) Penfield (Inn porch)	(Morse)	(Gullen Lounge) G Troxell (Boathouse) Laurenson (Morse Hall) Penfield (Inn porch)	Brown (Morse Hall) Carr (Boathouse) Penfield (Inn porch)	Greeting Friends, Exploring	Session I Workshops Posters	2:00–2:50 P.M.
	IRAS Annual Meeting followed by Council Meeting (Morse)	TalkShop: "Growing IRAS Membership" Klein (<i>Morse</i>)	lan Barbour – Lecture	BiteSize: Dumont	TalkShop: "An Alternative Business Model for IRAS" Bercaw (Morse)	Arriving,	Choir Rehearsal Free Universities IRAS TalkShop IRAS BiteSize	I:00−I:45 P.M.
		, and Socializing	Vorkshops, TalkShops	Afternoon Activities: Recreation, Poster Sessions, Workshops, TalkShops, and Socializing	oon Activities: Recreat	Afterno		
							Lunch	11:45 -1:00 P.M.
All-Conference Discussion and Declaration	Whitney Sanford Why We Need Religion	Anita Spring Food Security and Agricultural Innovation	Bob Lawrence US Food System and International Law	Barry Brenton Food Sovereignty and Environmental Nutrition	Sol Katz World Food Problems and Solutions		Lectures Break Discussion (Morse)	9:30-10:25 A.M. 10:25-10:45 A.M. 10:45 -11:45 P.M.
		Raman	VV R				Chapel*	8:30 -9:15 A.M.
							Breakfast	7:30-8:30 A.M.
			Plenary Lectures	Morning Activities: Chapel and Plenary Lectures	Morning			
Friday	Thursday	Wednesday	Tuesday	Monday	Sunday	Saturday	ACTIVITY	PERIOD

Note: Silver Bay meals are buffet-style open seating at 7:30–9:00, 11:30–1:00, and 5:30–7:00. Coffee and continental breakfast are available from 6:30–7:30.

Saturday, August 3: Breakfast and depart.

^{*}All morning ceremonies will be held at the Chapel except for Sunday morning, the location of which will be announced.