

Towards **RAGUSA SHWA** 2021

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[John Rosecrance](#)

Colorado State University, USA

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Swedish University of Agricultural Sciences

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[Celsino Govoni](#)

Department of Public Health - Local Health Unit of Modena, Italy

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[Giuseppe Santucci](#)

Department of Computer, Control, and Management Engineering
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[Annik Starren & Martina Jakob](#)

Project Manager PRU (prevention and Research Unit) European Agency for Safety and Health at Work (EU-OSHA), Bilbao. Spain

"Do landscapes act on lifestyles?" resources, perception and choices

[Gioia Gibelli](#)

Italian society of Landscape Ecology - Italian region of IALE International Association for Landscape Ecology, Italy

ABSTRACTS

Gioia Gibelli

Do landscapes act on lifestyles?" resources, perception and choices

The presentation will synthesize three phases of the landscape evolution during the centuries, trying to highlight the interdependencies between landscape, resources, human perception and choices, touching upon the fundamental landscape metrics.

"Landscape" is intended referring to the European Landscape Convention of the Council of Europe. Briefly it is considered as "the result of the continuous interactions between nature and culture".

The first phase: The Landscape evolution is the history of the domestication of nature by humans.

This was a process of adaptation, which began with the "Neolithic revolution" which was the engine for building agricultural landscapes, and also the first urban landscapes, thanks to the steadiness of populations. The relationship between villages and cities with cultivated lands was rather symbiotic, but characterized by a precise identity, based on clearly different functions and roles and a clear perception of the importance of different resources by the populations.

The second phase: The Industrial revolution throws a great deal of a new energy into the world. Human processes go faster, humans can transform the land more easily looking for a progress based on the use of the natural resources. No worries if limited, nor on the DNA of landscapes (understood as the large amount of information that underlies their evolution).

Adaptation is replaced by overpowering. The relationship between city and nature changes. The population begins to urbanize. Over time, the separation between the resources conserved and produced by agricultural and rural landscapes is no longer directly linked to citizens: hence the perception of citizens changes: the value of agriculture and nature is lost, therefore the value of the soil. The arts and architecture found their aesthetics at the beginning on classical objects, and then quickly moved on to geometric objects, also artificializing natural subjects. Landscape design reflects this trend, adding a break between extraordinary and everyday landscapes. Land management reflects this rift with the appearance of the landscape degradation and of the pollution.

The third phase: the acceleration of human processes is going faster, supported by the availability of energy and the loss of perception of the values of natural resources: the technological urban landscape satisfies all the needs of the urban population which exceeds 50% of the world population and 70% of the European population. In 1990 Zev Naveh coined the term "total human ecosystem", to explain to the world that every ecosystem on the planet is now conditioned by human activities.

The citizens daily used resources actually are the asphalt instead soil, some well packaged food, water abundantly provided by a tap, etc. The urban landscape provides every resource they need, also if resources are provided by natural and agricultural land. Their short perception can't attribute values to nature and soil. Since Policies come from the general understanding, in fact we miss efficient policies to defend or improve, soil, natural resources and landscape. Resources are consumed rapidly, as are the landscapes that conserved them, and their DNA. Today we can speak about "consumption of landscapes" deeply linked with the increase of vulnerability and unsustainability of the development.

Conclusion: it is a continuous cycle: in order to improve their life styles, humans change its landscape. But the changed landscape, acts on human behaviors, needs and culture, therefore on lifestyles. Then the cycle re begins.

We can use some metrics as indicators in order to estimate not only the landscape loss and the vulnerability increase, but also the cultural and ecological ecosystem services that agricultural landscapes can provide. Tool that could be used to orient the future policies able to pay attention to natural resources and to the landscape, moreover to assure wellness to the people.

Celsino Govoni

Chemical Risk assessment in agriculture

The chemical products mostly used in agriculture belong to the category of plant protection products, biocides, fertilizers, detergents, lubricating oils and fuels.

In European Union, the voluntary use of carcinogenic and mutagenic agents is generally forbidden in agricultural work. In support of this statement, the plant protection products are registered in EU only if they don't contain carcinogenic and mutagenic substances classified in category 1A and 1B. The social legislation on health and safety in the workplace is strongly influenced by the product legislation. In fact we can emphasize a clear differentiation between the concept of chemical risk either for health or for safety in agricultural work.

However, on the basis with the same cultural and professional preparation of every farmer on the chemical risks present in the agricultural workplace, we can affirm that the non-use of work equipment and personal protective equipment in compliance with risk management measures by chemical agents present in agricultural workplace can cause occupational disease and injury.

Therefore, the chemical risk for health (occupational disease) is usually connected with the medium and long-term toxicological properties of chemical substances, while the chemical risk for safety (injury) is usually connected with the chemical-physical, chemical-reactive and toxicological properties with short-term effect.

Finally, we must emphasize that chemicals with only eco-toxicological properties aren't considered in risk assessment for protection the health and safety of the farmer in workplace.

Peter Lundqvist

What about health and safety in Swedish agriculture in the time of COVID-19 - a national report 2020

The main worries for Swedish farmers during 2020 was the initial problems with restrictions for seasonal workers to travel in Europe and the lack of access to personal protection equipment. So far has the COVID-19 not had much negative impact among farmers and farm workers in Sweden.

Consumers are now more willing to buy locally produced products from farmers, but still most of the health & safety challenges remains, with three recent work-related fatalities in agriculture. A new web-based campaign on reducing farm injuries started this summer and an on-going study has focus on rural crime as a health & safety problem, but besides that are there decreasing resources for interventions and research regarding health & safety in agriculture.

The Nordic Meeting on Agricultural Occupational Health and Safety was planned to take place in November this year, but has been rescheduled to September 6-8, 2021, just before the Ragusa SHWA 2021 event!

John Rosecrance

Field research in the time of COVID-19

In the throes of the Covid-19 pandemic, nearly all major university research centers across the United States have halted in-person functions. That is, except for work on the pandemic. And rightly so. This is a dangerous public health emergency that requires large-scale shifts in how we live and work. But it also requires a national and institutional response that matches the scale of the problem. Unfortunately in the United States, the Trump Administration does not have a national response that matches the challenges of this pandemic. The lack of a national plan affects nearly every university, our teaching, our service responsibilities, and our research. My presentation will discuss some of the challenges that we currently face conducting occupational health research with agricultural populations during the Covid-19 pandemic. I will present my perspectives on the current state of research training at both the macro and micro level.

Giuseppe Santucci

Leveraging on end users to reduce cybersecurity risks

The role of the users is a key point for assessing and mitigating the risk of a cyber attack. This communication clarifies the why of an attack and how end users can increase the risk of an attack, showing the most common way an attacker exploits users' weakness.

The talk concludes pointing out a novel and challenging research activities, i.e., how attack graph methodology can integrate user misbehaviors for reducing the cyber security risk.

Annik Starren & Martina Jakob
EU OSHA Review on the future of Agriculture and OSH

The European Agency of Safety and Health at Work (EU OSHA) initiated a 'Review on the future of Agriculture and OSH' in the end of 2019, which has been committed to a consortium of Leibniz Institute for Agricultural Engineering and Bioeconomy e.V. (ATB) (Martina Jakob), the Mediterranean Agronomic Institute of Zaragoza – International Centre for Advanced Mediterranean Agronomic Studies (IAMZ CIHEAM), Spain, (Mr Alun Jones) and TEAGASC, Ireland, John McNamara from. The project is expected to be finalized in November 2020.

The objective of the project is the delivery of an expert review on “the main trends affecting agriculture, the resulting technological and organizational changes and the consequent implications for the health and safety of workers in the sector”. Sectors to be covered in the project are: agriculture, horticulture/greenhouse activities, livestock farming and forestry.

For the review recent foresight studies on agriculture have been analysed and interviews have taken place with experts and practitioners. As a result the main trends affecting agriculture have been set into a list of **key drivers**. Each of the key drivers varies in terms of the number of their component parts and the disruptive effects of the resulting technological and organisational changes that they will generate and ultimately in their impact on occupational safety and health. In June a virtual workshop took place which was attended by 25 experts representing 16 countries and a wide range of interests and specialisms, from forestry to labour rights and from robotics to politics to discuss the first results.

Three focus areas for future development have been identified in the context of occupational safety and health outcomes;

1. Digitalisation, Technology and Smart Farming
2. Labour Market Trends
3. Climate Change and Health Determinants

The review is planned to be finalized in the end of 2020 with the aim to support policy makers at European and national level in their development of strategies, regulation, enforcement, guidance and support measures. It will also indicate knowledge gaps to help identify research priorities.

To learn more about EU-OSHA classifications, visit <https://osha.europa.eu/en/ic.pdf>