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The SUPER HABITAT project

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The Slow Energy España Association was formed in 2012 to promote energy culture in society through the identification, filtration, shaping and dissemination of useful concepts related to better living using less energy.

Its principal objective is to generate a social demand for solutions that improve our quality of life through improved indoor living conditions, presenting, in an attractive and simple way (1) the basic concepts and techniques for improving health and comfort in our homes, and (2) their practical application using a minimal amount of energy. The efficient diffusion of these concepts is intended to stimulate their adoption, not for reasons of energy efficiency, but rather because their application results in an improved quality of living.

The SUPER HABITAT project is one of the linchpins of Slow Energy´s activities, consisting of the third edition of the widely distributed and previously named "Manual to stop you wasting energy".

Education, culture, living conditions, energy

Context

Spain in the current decade presents a society immersed in uncertainty, plagued by profound economic problems and unprecedented levels of unemployment, together with the problems derived from chronic foreign energy dependency.

In this context the Spanish government needs to take complex decisions, further challenged by Spain's commitment to comply with emissions reductions in 2020.

The current scarcity of public funds and the excessive cautiousness of the private sector, driven by austerity policies, do not favour the short term success of public initiatives in the building energy efficiency sector. Social interest in energy saving is directly linked to economic benefits rather than environmental or sustainability criteria. It is, in any case, not a priority.

Let us take the example of the recent requirement for the energy efficiency certification of existing buildings. The measure is perceived as an imposition, and its educational value as a tool to raise awareness and generate data does not, as yet, work. Clearly, the process requires further development and consolidation. The usual key elements are missing: communication, education…the Administration must rethink its approach and understand that citizens need to be heard. Mainstream politics must be accompanied by social skills and communication. Currently citizens feel abandoned to their fate and any imposition incites rejection, especially when not adequately presented.

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The SLOW ENERGY ESPAÑA Association

ASEE was founded in Spain in 2012 by a handful of professionals specialised in energy efficiency and Passivhaus, born from the realization that a gulf exists between the energy culture of Spaniards and the basic knowledge an informed civil society should have in relation to energy solutions.

The benefits of sustainable construction certifications such as Passivhaus, BREEAM, Verde, Minergie etc., alongside a large number of disciplines related to energy and the environment, are debated by an enlightened public, generally professionals. However, the message does not reach people on the street.

It is in this context that ASEE seeks to close the loop, identifying and filtering pre-concepts that awaken interest in a non-technical public, shaping them into messages that are simple to understand, disseminated through efficient channels of communication that offer an effective diffusion and implantation of these messages.

To use IT argot, ASEE initiatives are analogous to open source plug-ins that allow for a more effective implementation of existing standards and techniques. They attempt to provide a human dimension to a technical message, breaking down barriers and facilitating understanding for people lacking in technical knowledge: people who will, in the future, be those demanding energy solutions.

From the ASEE prism, raising awareness (education, literacy…) in civil society is, without doubt, the principle challenge for the consolidation of energy efficiency measures, for two reasons:

- A citizen will never ask for a solution that he or she is unaware of, does not understand or does not want.
- The mass implementation of small-scale energy efficiency measures represents the only real way of reducing the national energy dependency.

Given the panorama presented above, what is the solution? The answer is to identify the techniques and habits that lead to energy savings and convince citizens to put them into practice. How can this be achieved? There are only two paths: imposition (regulations, standards, energy price rises…) and education.

In ASEE we think that technical professionals together with the Administration continue to make the same basic mistake. There is no point talking to the neighbour who lives on the third floor about energy efficiency. We must talk about health, accessibility, environmental quality and comfort…we must focus on what is truly important to people and then find solutions to resolve this, using the least possible amount of energy.

Mrs. Maria is bored of being told she must do an energy retrofit when she has serious problems paying the bills. Energy is perceived as boring, as well as a necessary resource on

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which we are dependent and to which we are enslaved. Despite this, there are more pressing problems than energy.

Mrs. Maria should not be told she has to do an energy retrofit. Ideally, she will decide herself that this is what she should do. When this occurs, it´s very probable that energy savings will not be her principle objective, but will have more to do with her well-being and that of her family.

ASEE is committed to education in the energy field. Together with numerous other organisations, ASEE exists to meet a need which, despite being the responsibility of the Administration, is being largely neglected, namely: literacy in energy saving.

Manual to stop wasting energy

The SLOW ENERGY ESPAÑA Association has edited, in two consecutive years (2012 and 2013), two versions of a free publication that has been disseminated on a large scale, called "Manual to stop wasting energy". The manual brings together basic concepts in the field of bio-habitability, ergonomics (comfort), sustainable construction, passive building design, efficient heating and cooling systems, etc… transforming them into messages that are easily understood.

The key concepts proposed by our members have been stripped of technical content, making them accessible to a general public with no technical expertise, so that they can be easily understood, above all by school children.

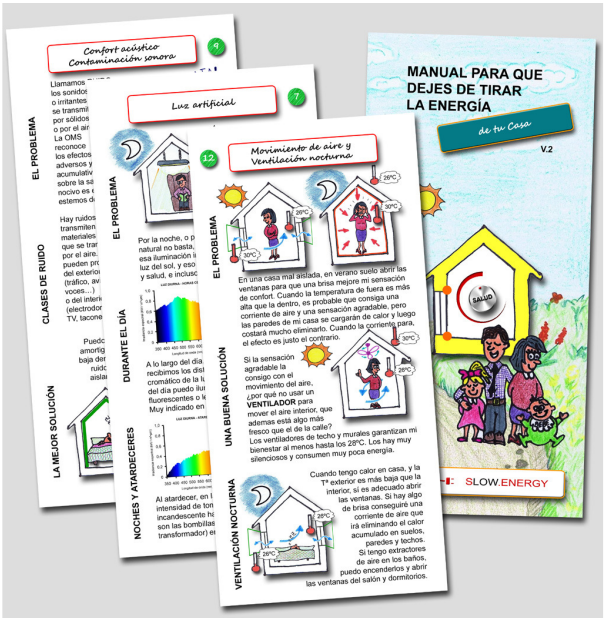

Image 1: Manual to stop wasting energy v.2

Embedded in this initiative is the understanding that the design of the message (purging of technical content, fresh ideas, highly visual, striking…) is as important as the effectiveness of its dissemination (penetration of the message, format, and intensity).

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Contrary to the majority of campaigns, the here message is holistic (i.e. what really works is the combination of measures, rather than individual measures) and is addressed to both the layperson and the professional. The objective is to stimulate an informed demand for solutions that are currently not demanded, be it due to ignorance of their existence or a lack of awareness of their benefits.

The Manual is intended to be a self-teaching tool that opens the door to useful information, so that those who are interested can begin applying them and dig deeper in specific aspects that have caught their attention. There is a final message, namely that the extremes converge on common ground: improved hygiene and energy efficiency.

Dissemination

Efficient dissemination of adapted ideas is as important as the identification and shaping of the concepts themselves. The distribution of the manuals is done exclusively by members of ASEE, either based on internal criteria or in response to external requests.

So as to maintain the impartiality and independence of the initiative and its contents, no commercial use of the Manuals is permitted. Their use is limited to educational activities only and they will always be FREE.

In regards to external requests for printed copies, priority is always given to the distribution of manuals in a context where their contents are presented by an educator or facilitator. Either way, best practice agreements are reached regarding their use and distribution, between ASEE, individuals and organisations (including private enterprises) who request copies.

- Members of the Association SLOW ENERGY ESPAÑA
- School teachers from primary onwards (over 6 years old up to pre-University) who see the Manual as an educational tool for their students. Complementary activities are also being developed involving parents.
- Environmental or social workers and consumer groups, who want to include the Manual as a new educational aid in talks and workshops.
- Training courses and Masters relating the fields of energy, comfort, bio-habitability, architecture and sustainable construction and/or low energy buildings.
- Congresses and Workshops related to the same areas.
- Members of organisations that share the message of the Manual
- Professional Colleges, Energy Agencies…

Below are some of the events in which the Manual has been distributed:

- Solar Decathlon Europe / Madrid, September 2012

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- I & II Congress on strategies for the Energy Retrofitting of Buildings "ERE2+"/Madrid, 11-12 June 2013 and 6-7 May 2014
- II Congress of Architecture and Health / Barcelona, 20-21 June 2013
- 4th European Conference on Energy Efficiency and Sustainability in Architecture and Planning "EESAP4" / Donostia – San Sebastián, 1-3 July 2013
- 4th European Conference on Energy Efficiency and Sustainability in Architecture and Planning "EESAP4" / Donostia – San Sebastián, 1-3 July 2013
- Workshop on Energy Efficiency and Historic Buildings / Madrid, 25-26 September 2013
- I Technical Workshop on Architecture based on Sustainability, Energy Efficiency and Bio-Habitability / FENERCOM, SEEB Madrid 2014

To date 20,000 copies of the Manual have been distributed in a targeted manner, together with a further 20,000 downloads via the Association´s website, generating debate, articles and features in various media channels.

Education

We live in a country where consumerism rules. Educating our children in conscious consumerism, not only in relation to energy, is vital. If we want our children to be free and responsible they need to know how to dispense with everything that is superfluous.

It therefore becomes particularly important to reinforce values of efficiency rather than wastefulness in our children´s education: this should be our principal objective.

The most recent studies show that the greatest part of our children´s education takes place at home, not at school. It is widely known that well-educated children generally come from educated families, irrespective of their place of learning…so teaching is done principally by parents rather than at school (with the exception of the motivated school teacher). But how are we going to educate our children in efficiency if we, their parents, don´t live by example or are not aware of what we should do?

The transformation of the current educational model towards new forms of generating knowledge would seem inevitable, one in which the transformational information is not simply found in a teacher's head or in books, but rather extracted primarily from the internet and in audio-visual format. In this context, the qualification of parents and teachers in relation of information loses relevance.

Within this new educational paradigm, classrooms will be transformed into spaces where downloaded information will be experienced and contextualised. Parents and teachers who are truly concerned about a child's education will work towards the transformation of information into knowledge…that is to say: they will teach them to think, not to memorise.

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ASEE aims to participate in the development of balanced educational content in the field of sustainability and energy saving.

SUPER HABITAT

In 2014 the 3rd version of the "Manual" is published, with new content and formats (printed and digital), and potential to reach new areas. Building on previous successes, ASEE hopes to create a headline reference publication on how to live (much) better using (much) less energy. Among those who have taken part in developing content are first grade technical professionals, social institutions related to the energy field and prominent game-changing individuals.

The 3rd edition reveals a significant development in the Manual and carries the title SUPER HABITAT. It brings together the following three distinct areas:

- Healthy indoor space (bio-habitability). This is the area of focus.
- Sustainable construction
- Nearly-zero energy buildings (passive and active strategies)

Achieving a SUPER HABITAT is done through the merging of the following disciplines: HEALTHY HOME + SUSTAINABLE HOME + PASSIVE HOUSE.

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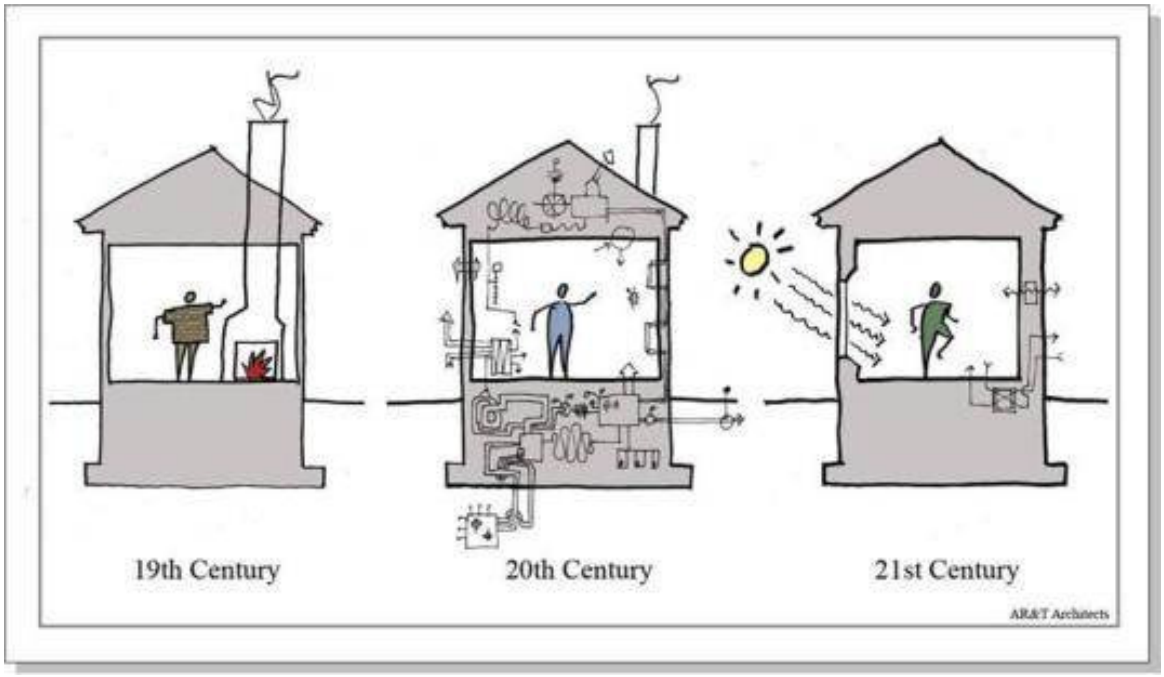

Image 2: Evolution: we've moved from living in 19th Century houses (high levels of thermal inertia, lots of clothing and wood or coal burning stoves for comfort) to 20th Century homes (low levels of insulation with active systems for comfort) that allow for improved living conditions. If we want to take the new step towards 21st Century homes (optimum insulation, ventilation, and passive systems that provide comfort) we need to demonstrate to society that they provide far greater well-being (and, as if it was of minor relevance, use far less energy).

Additionally, the educational objective of SUPER HABITAT is the presentation of solutions that notably improve our quality of life and that of our families. The methodology lies in ASEE's realisation that **what people really want is not to save energy or be more sustainable, but improved well-being.**

The goal is to provide a rodeo that offers society what it wants, beginning with the presentation of the potential improvements in our indoor habitat (bio-habitability) and subsequently proposing the most sustainable and low energy solutions that, in most cases, overlap. In this case, content is divided into various volumes. In 2014 these will be:

- Energy culture: Introductory volume presenting the problems facing society in general: scarcity of resources, climate change, fuel poverty, social inaction…
- Micro-monsters: Description of the toxins and contaminants present in the home, their name, how they arrive, what effects they cause and how to avoid them.
- Comfort: Places human value on the disciplines of ergonomics and our sensory input, providing the basis of low-cost solutions leading towards energy efficiency: air movement, radiant temperature, acoustic hygiene…The intelligent adjustment of these parameters makes achieving comfort possible with reduced energy consumption, even in inefficient buildings.

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- Heat: A document explaining, in simple terms, what heat is and how it moves in and out of our home…
- Ventilation: A volume that is particularly important and a required discipline for the design of "nearly zero energy buildings" with high levels of air tightness, as a means of guaranteeing indoor hygiene, eliminating toxic contaminants and providing fresh air.
- Construction materials: Evaluation of materials in relation to their toxicity, environmental impact and energy use.
- Book of solutions: From low-cost solutions (do-it-yourself) to the most efficient solutions (Passivhaus). Priority is always given to solutions that significantly improve our health and /or indoor environment.
- The modular nature of content through the mass publication and distribution of printed volumes, covering a wide range of themes, will allow for new content to be generated on an on-going basis.

Over the course of 2014/15, ASEE's objective is to disseminate selected SUPER HABITAT content to no less than 1,000 schools (primary and secondary), integrated into specific educational workshops.

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