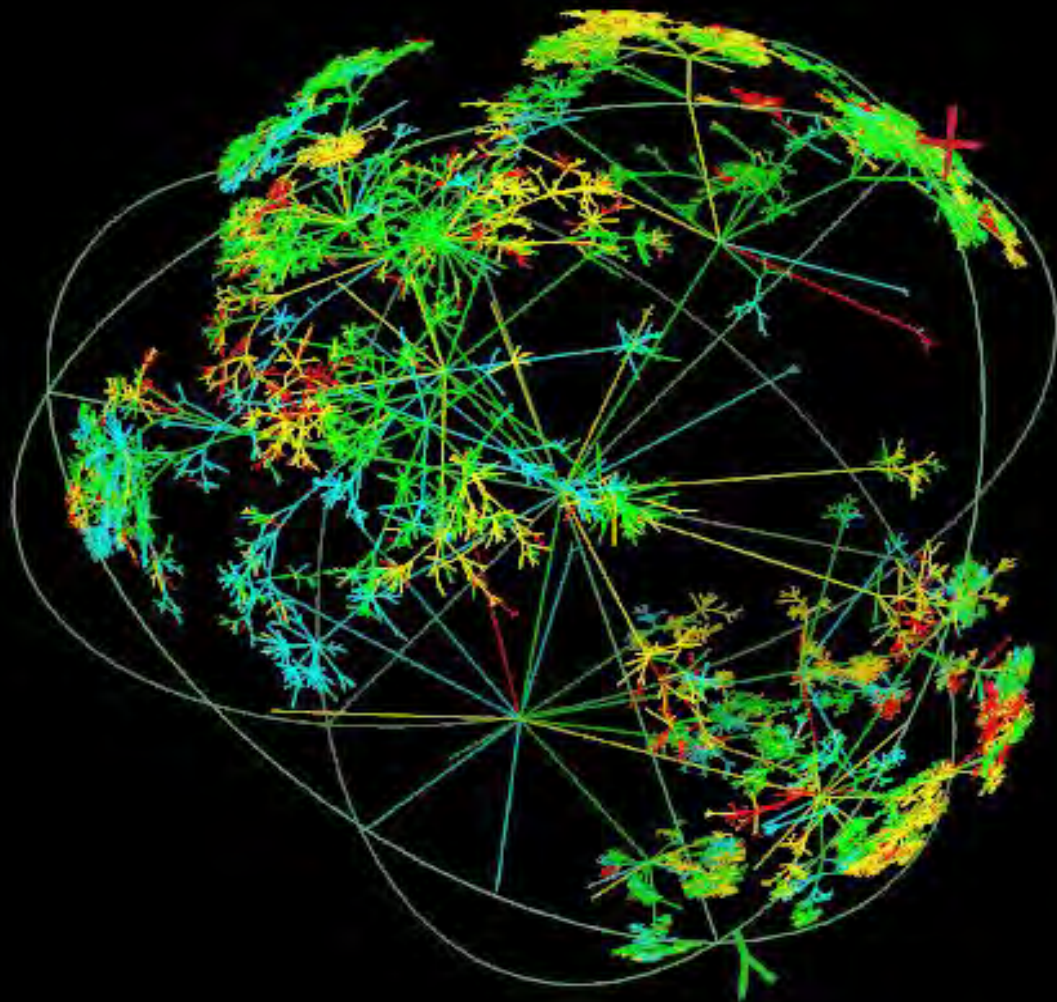


# Budućnost energetike i upravljanje prostorom

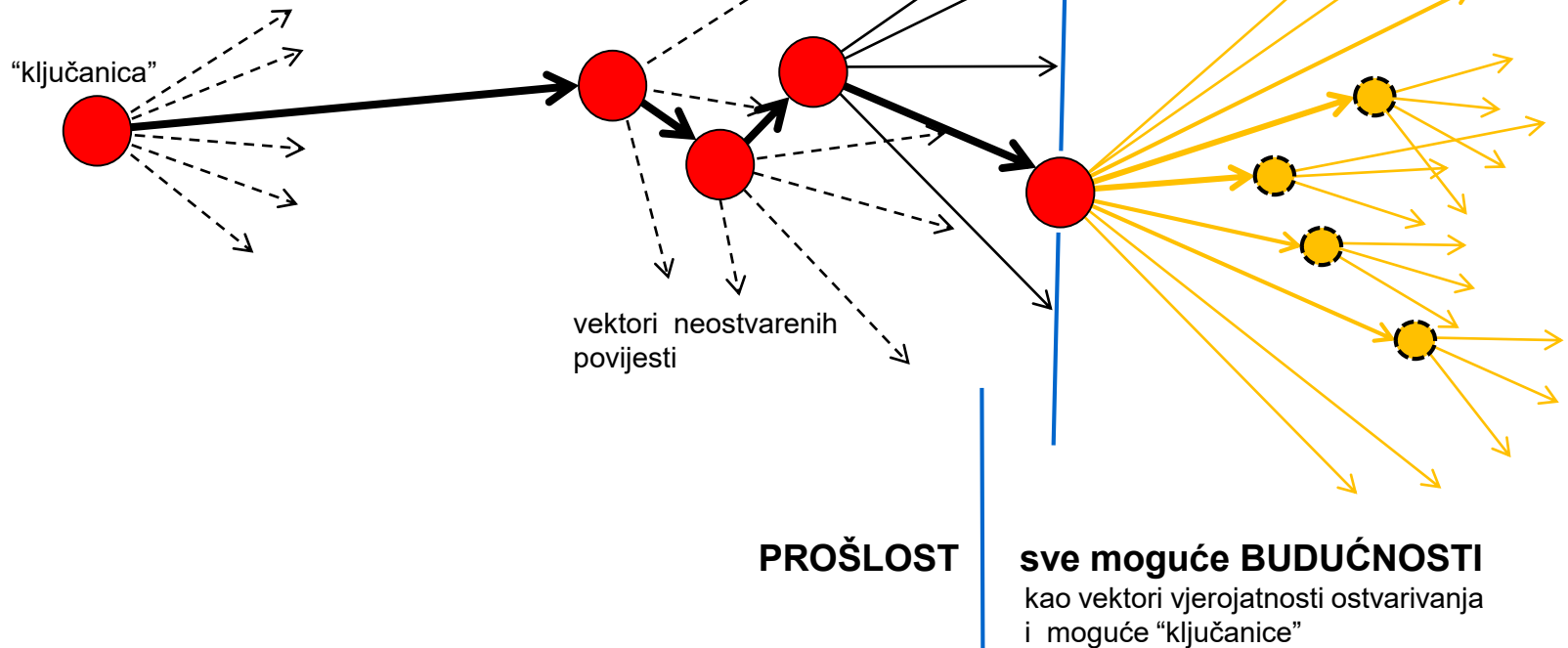
25.09.2018.



BUDUĆNOST,  
uvijek kreće od sada











**VEKTORI** bivših  
prošlosti i nadolazećih  
budućnosti u **N**  
dimenzionalnom prostoru  
(jedna dimenzija)

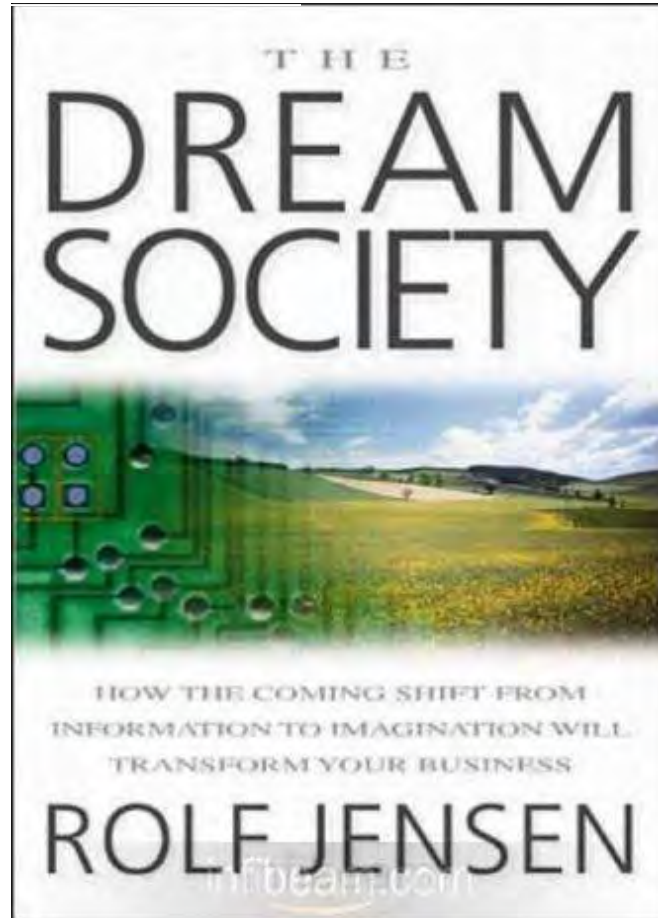
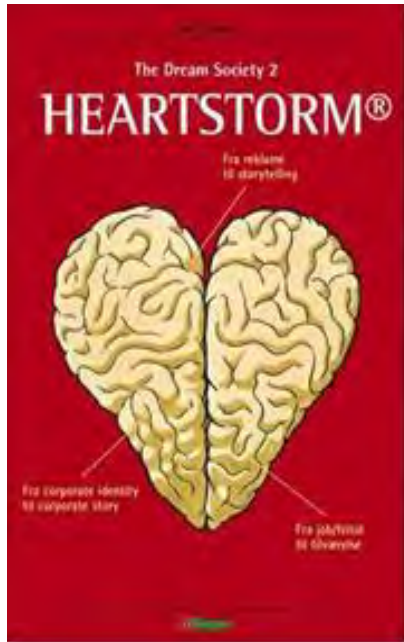






								128
256	512	1,024	2,048	4,096	8,192	16,384	32,768	
64K	128K	256K	512K	1M	2M	4M	8M	
16M	32M	64M	128M	256M	512M	1G	2G	
4G	8G	16G	32G	64G	128G	256G	512G	

# Rolf Jensen



New Studies in Archaeology

# The Collapse of Complex Societies

JOSEPH A. TAINTER



Joseph Tainter

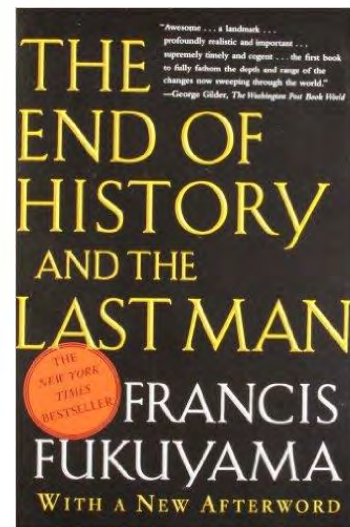
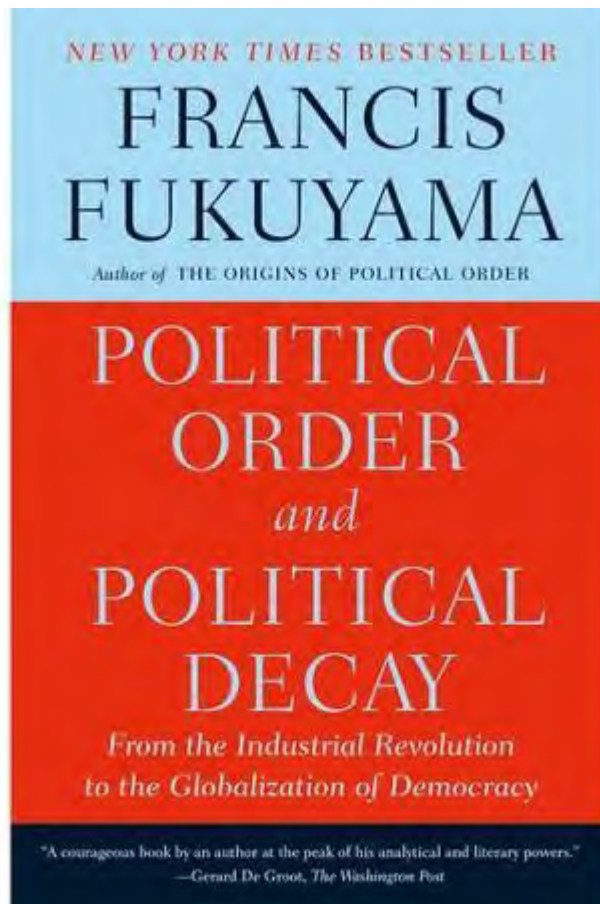
naša civilizacija će doživjeti  
kolaps u periodu  
unutar 35 do 50 godina”

“The Collapse of Complex Societies,” (1988.)



## Francis Fukuyama

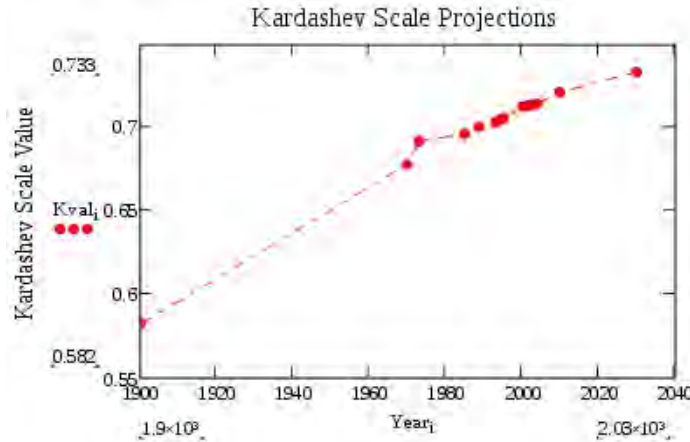
Political Order and Political Decay: From the Industrial Revolution to the Globalization of Democracy (2014)





# Kardašeova skala civilizacija (1964)

- Tip I — energija planeta
- Type II — energija zvijezde
- Type III — energija galaksije



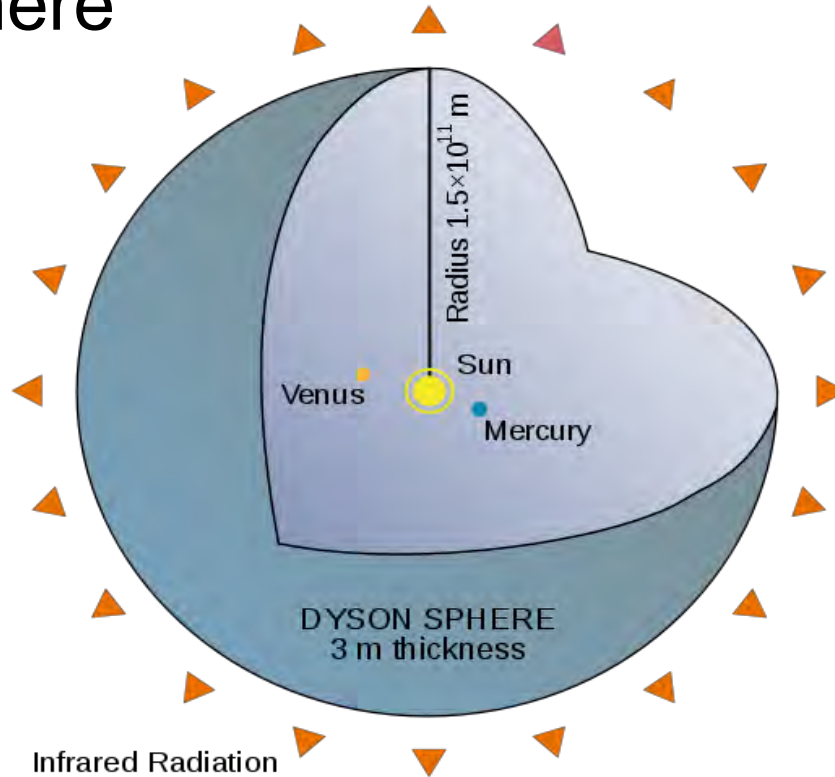
Nikolai Kardashev

(1985). "On the Inevitability and the Possible Structures of Supercivilizations" in "The search for extraterrestrial life: Recent developments; Proceedings of the Symposium, Boston, MA, June 18-21, 1984". p. 497–504.



# "Dyson Sphere"

Type II



**Freeman Dyson**

Dyson, Freeman J. (3 June 1960). "Search for Artificial Stellar Sources of Infrared Radiation". *Science* 131 (3414): 1667–1668

# Pneumatic and krystallic structures

## Pneumatic structures for Lunar and Martian habitats

**NEW FORM OF STRUCTURE PROPOSED – A KRYSTALLIC STRUCTURE IS A STRUCTURE WHICH IS INITIALLY DEPLOYED AS A PNEUMATIC STRUCTURE BUT IS THEN TRANSFORMED INTO A RIGID SHELL BY A MATERIAL PHASE CHANGE**



Raymond Nagem



Ranko Bon



Guido Sandri



Mary-Kate Weaver

Professor Raymond Nagem, Guido Sandri and Mary-Kate Weaver of the Department of Aerospace and Mechanical Engineering at Boston University and Ranko Bon, formerly of the School of Architecture and Planning at Massachusetts Institute of Technology outline the design considerations that are required to overcome the hostile and structurally severe extraterrestrial environments on Mars and on the moon. General properties of pneumatic structures are discussed and soap film models are constructed as design guides.

Le Professeur Raymond Nagem, Guido Sandri et Mary-Kate Weaver de la Faculté Aérospatiale et l'Ingénierie Mécanique à l'Université de Boston et Ranko Bon, jadis de l'École d'Agriculture et Planification à l'Institut de Technologie à Massachusetts, exposent à grand traits les considérations de conception qui sont recommandées pour surmonter les environnements hostiles de Mars et de la lune en vue des difficultés structurales qu'ils présentent. Les propriétés généraux des structures pneumatiques sont exposés par l'intermédiaire de courts métrages qui servent de modèle.

### Introduction

A pneumatic structure (from the Greek *πνευμα*, breath of life) is a structure in which all or part of the external loads are supported by air pressure. Pneumatic structures have the advantages of light weight, economy, portability and great adaptability of form and purpose. A

application by the English engineer Frederick William Lanchester in 1917, although pneumatic 'structures' such as kites, balloons and sails have been used for centuries.

Certain aspects of pneumatic technology are now well established. According to ref. 1, no major stadium has been roofed with conventional (non-pneumatic) material

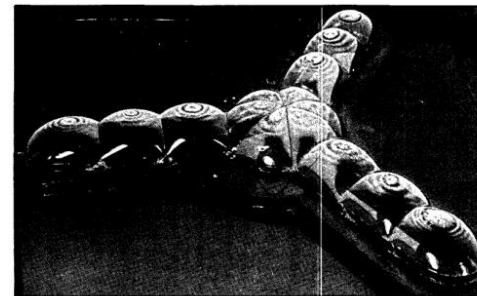


Fig. 8. Membrane model of three-way element junction

critical biological necessities are contained in the inner pneumatic shell.

Another possibility for protecting pneumatic structures is shown in Fig. 12. Here a pneumatic membrane is used as a form or scaffold onto which a cementitious material is poured in circumferential rings. On Mars or on the moon, the weight per unit area of the poured shell is small compared to the internal pressure, so that the additional vertical loading on the membrane is negligible. When the cement hardens, a rigid shell is formed, providing a permanent structure which may or may not continue to utilize the inner pneumatic membrane.

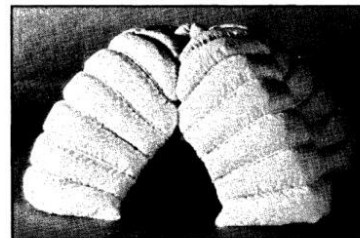


Fig. 11. Regolith structure with central dome and portals

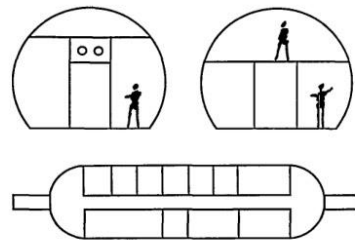
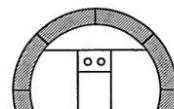
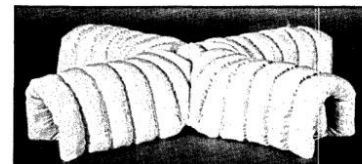


Fig. 9. Tubular habitat module

As a variation of the previous idea, consider Fig. 12 as a double-layered pneumatic structure in which the interior fluid is air and a second fluid is contained in the shaded shell. If the interior air pressure is greater than the fluid pressure in the shell layer, the structure is deployable and self-supporting. If a phase change from fluid to solid is induced in the shell layer, a rigid shell is again formed. The fluid in the constrained layer may be water, which is pressurized in a liquid state and then allowed to freeze in the extraterrestrial environment. A simple laboratory demonstration of this technique is shown in Fig. 13. This shows a soap film which was pressurized and subsequently frozen, producing a spherical ice shell. The ice is truly a shell structure, in the sense that it no longer requires internal pressure for



## An essay in building in space

An authoritative essay on building in space based on MIT architectural studies

Ranko Bon  
Pages 30-40

### Abstract:

Associate Professor of Building Economics & Technology at the Department of Architecture, Massachusetts Institute of Technology, MIT, Ranko Bon describes the process of space exploration and development with an emphasis on building technology, which will have to adapt to the diverse needs of space. The author argues that we already possess most of the 'high' technology, but it is simple, robust and flexible 'low' technology for colonization that needs to be developed.

## Space exploration An essay in building in space

**AN AUTHORITATIVE ESSAY ON BUILDING IN SPACE BASED ON MIT ARCHITECTURAL STUDIES**



Ranko Bon

Associate Professor of Building Economics & Technology at the Department of Architecture, Massachusetts Institute of Technology, MIT, Ranko Bon describes the process of space exploration and development with an emphasis on building technology, which will have to adapt to the diverse needs of space. The author argues that we already possess most of the 'high' technology, but it is simple, robust and flexible 'low' technology for colonization that needs to be developed.

Maitre de conférence en Economie et Technologie du Bâtiment au département d'Architecture du Massachusetts Institute of Technology (MIT), Ranko Bon décrit le processus de l'exploration spatiale et de son développement en soulignant que la technologie de la construction qu'il nous faudra adapter aux divers besoins de l'espace. Il affirme que nous possédons déjà une bonne part de la technologie de pointe, mais c'est une technologie courante simple, robuste et flexible pour la colonisation qu'il convient de développer.

### Introduction

Trite as this may sound, everything in the universe minus this small but wonderful planet is out there. Beyond the Earth's gravitational well and within the time-horizon of several generations there wait resources capable of sustaining many times the present population of our species, as well as other species we may choose to take with us. Although the ultimate benefits of space exploration and development are literally infinite, we are presently constrained primarily by the costs of research and development of space technology. But there are also some institutional constraints having to do with the style of space exploration and development. Present governments and future colonists may need very different technologies, including the building technology needed for life in space.

Here we will discuss in a general way the process of space exploration and development with an emphasis on building technology. It will be argued that the early developments in this area will depend mainly on the provision of the transportation infrastructure, which requires massive government support. The initial capital investment required may, in fact, surpass the capabilities of the US and the USSR, the two leading space powers. Later

on, we may expect the private sector, and even small groups of adventuresome colonists, to play an ever more important role in space exploration and development. Building technology will have to adapt to the diverse needs associated with the two phases and styles of mastering the space frontier.

First we consider the fifty years that lie ahead, then we will speculate on the next hundred years. These four numbers are deliberately chosen to indicate the speculativity of this essay. Finally, we will let our imagination go wild in a discussion of the ultimate prospects of space exploration and development. We will envisage building projects of cosmic proportions.

### First fifty years

#### Reduce transportation costs

Engineers are practically unanimous in saying that cost the main 'driver' of engineering design. Briefly stated, the objective is to minimize the life cycle costs of the thing designed, subject to constraints - the specification concerning the thing's desired performance. The total cost thus includes both the initial cost and the costs of operation.

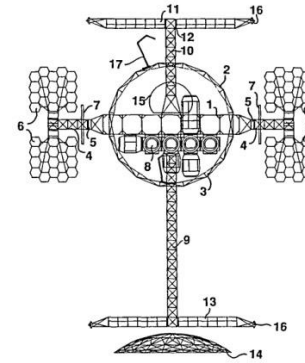


Fig. 1. A frontal view of the space station at the completed stage

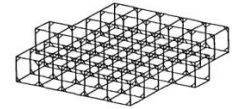


Fig. 2. Platform deployed

### MIT space habitat design workshop

Architecture, mechanical engineering, aeronautics and astronautic students at the Massachusetts Institute of Technology ran two three-month workshops, encouraged by prime mover Ranko Bon.

The first was an innovative space station design created by a team from different departments using AutoCAD software on IBM PC AT hardware at the Computer Resources Laboratory. Design drawings included folding circular trusses that could be carried on a shuttle and assembled in space. The architects contributed to a free-wheeling, uninhibited approach that turned out to be liberating for the engineers. The engineers, in turn, asked the hard questions and turned the architects' ideas into feasible hardware.

These studies have been included as a supplement to the building in space paper, as they demonstrate a fresh, innovative approach, tempered with the degree of ability that demands attention, as we move towards the year 2000, writes Tony Kirk.

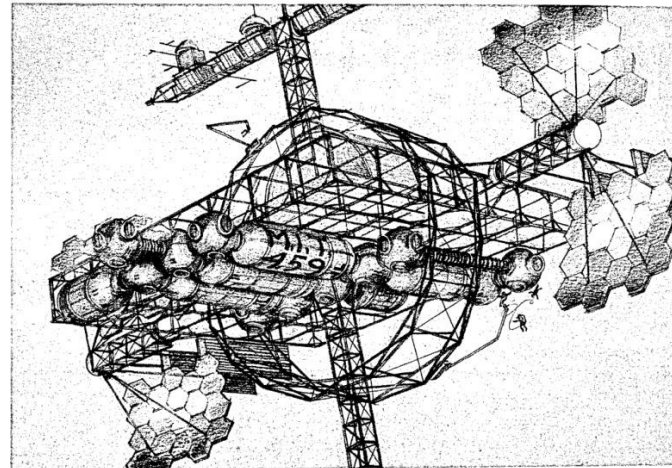


Fig. 9. Illustration by David Johnson





1.27 ha

1991.  
1993.  
1994.













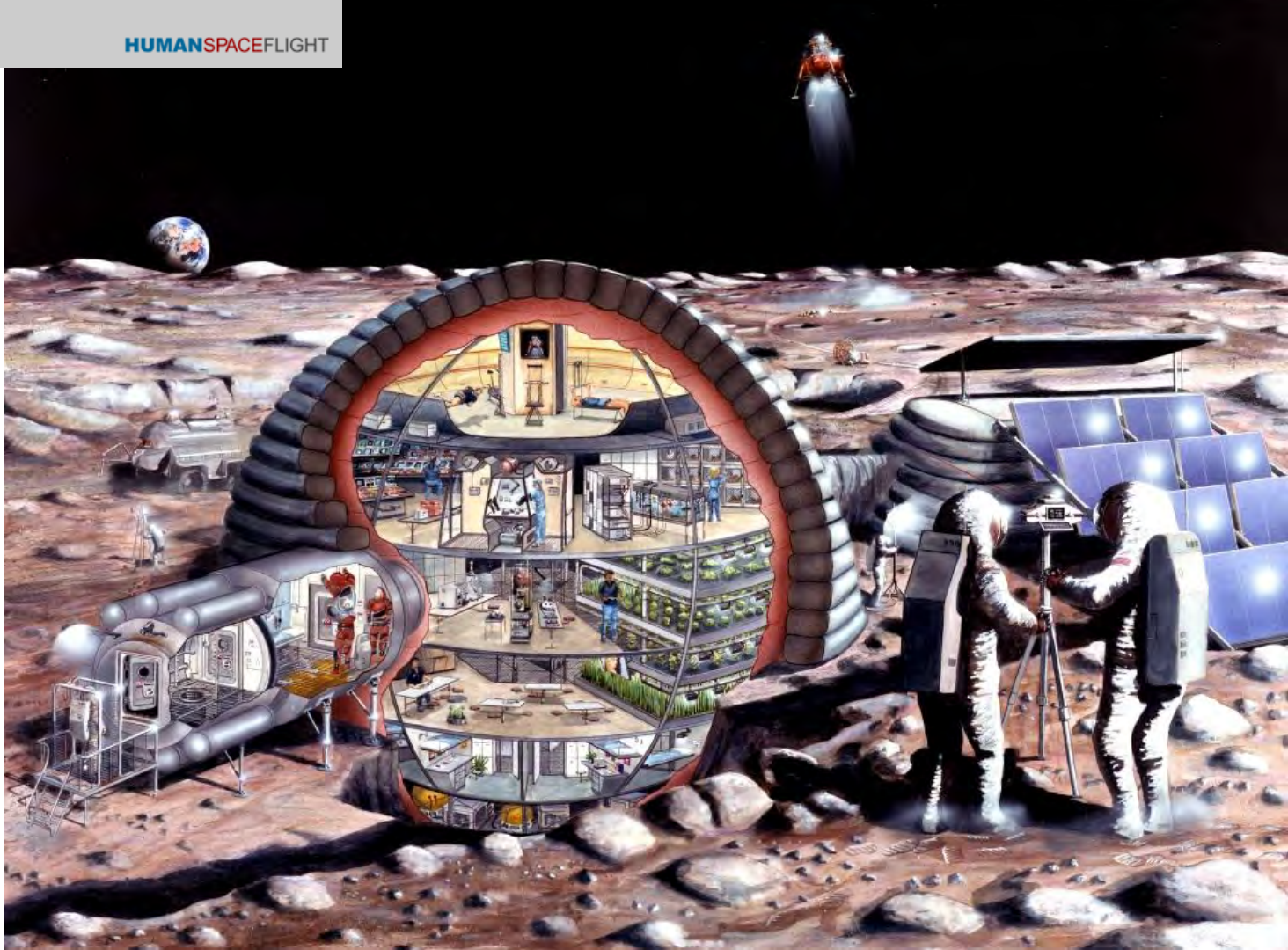






## Lunar Oasis proposal

S89-20084 (July 1989)--- With a number of studies ongoing for possible lunar expeditions, many concepts for living and working on Earth's natural satellite have been examined. This art concept reflects the evaluation and study at JSC by the Man Systems Division and Johnson Engineering personnel. A sixteen-meter diameter inflatable habitat such as the one depicted here could accommodate the needs of a dozen astronauts living and working on the surface of the Moon. Depicted are astronauts exercising, a base operations center, a pressurized lunar rover, a small clean room, a fully equipped life sciences lab, a lunar lander, selenological work, hydroponic gardens, a wardroom, private crew quarters, dust-removing devices for lunar surface work and an airlock.





Eh, kad se samo sjetim druge polovine 1980-tih na MIT-u!  
Bili smo uvjereni da je svemir pred nama ...

Čitavo je sveučilište sudjelovalo u radioni koju sam tada  
vodio, a bilo je i dosta kolega s drugih sveučilišta.

Sada sam sve više uvjeren da čovjek neće uspjeti u ovom  
poduhvatu ( R.B. 2016.)



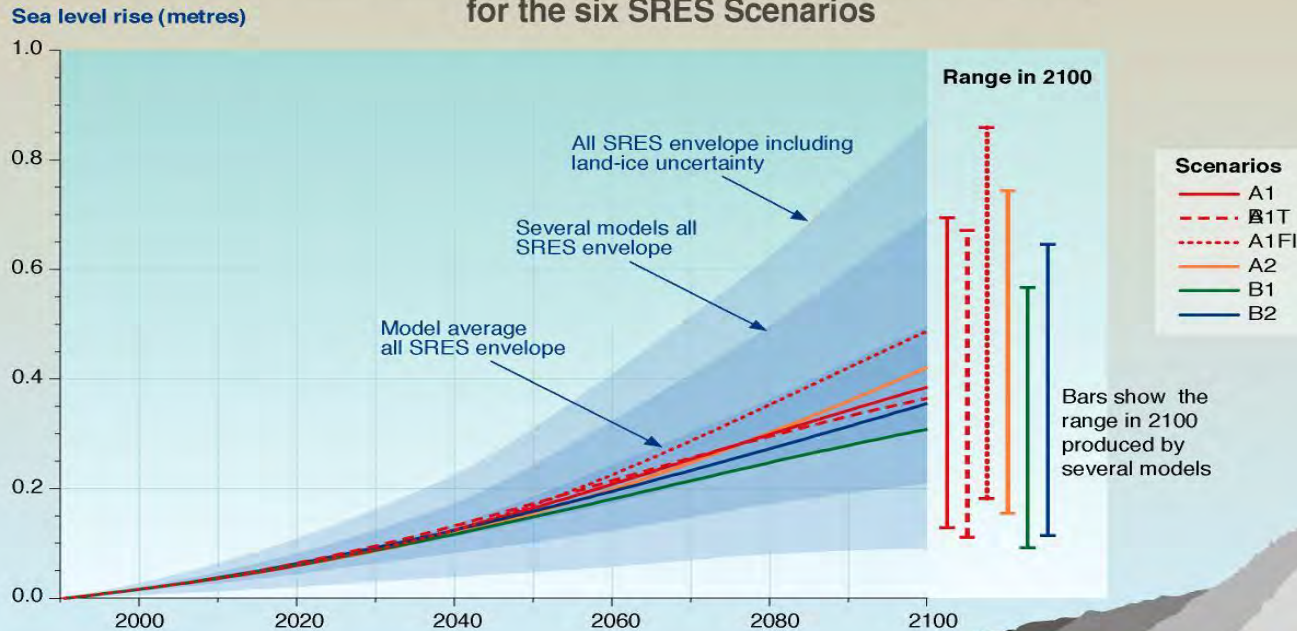
**Prof. dr. Ranko Bon**



# TRANSHUMAN AGENDA

Posljednje stoljeće *Homo sapiensa* .....

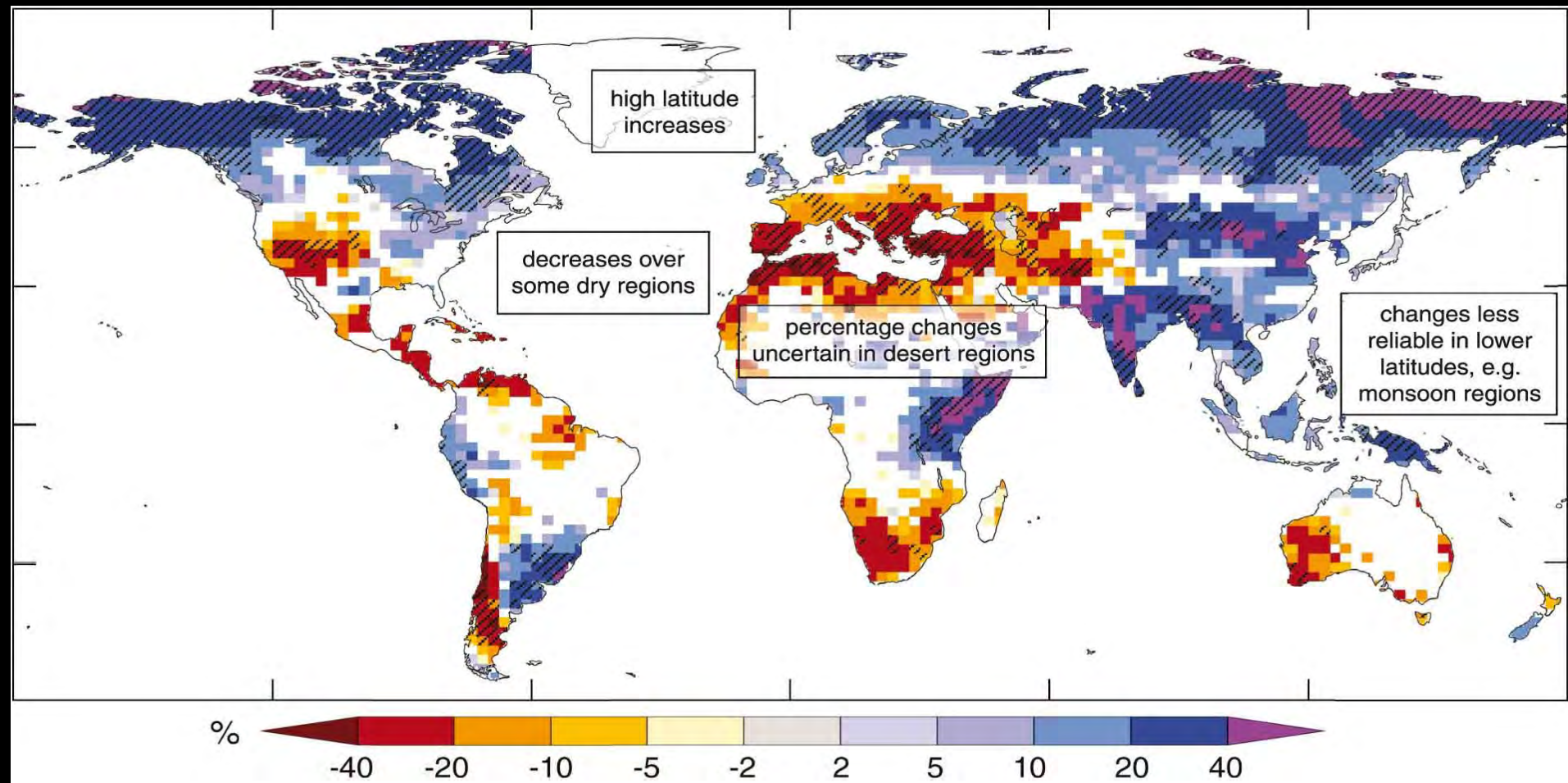
# Global average sea level rise (1990 - 2100) for the six SRES Scenarios



WG1 TS FIGURE 24



# Padaline





## JUDGMENT AND DECISION MAKING

VOLUME 10, NUMBER 6, NOVEMBER 2015

[Judgment and Decision Making](#), Vol. 10, No. 6, November 2015, pp. 549–563

### On the reception and detection of pseudo-profound bullshit

Gordon Pennycook\* James Allan Cheyne† Nathaniel Barr† Derek J. Koehler†

Jonathan A. Fugelsang†

#### Abstract

Although bullshit is common in everyday life and has attracted attention from philosophers, its reception (critical or ingenuous) has not, to our knowledge, been subject to empirical investigation. Here we focus on pseudo-profound bullshit, which consists of seemingly impressive assertions that are presented as true and meaningful but are actually vacuous. We presented participants with bullshit statements consisting of buzzwords randomly organized into statements with syntactic structure but no discernible meaning (e.g., “Wholeness quiets infinite phenomena”). Across multiple studies, the propensity to judge bullshit statements as profound was associated with a variety of conceptually relevant variables (e.g., intuitive cognitive style, supernatural belief). Parallel associations were less evident among profundity judgments for more conventionally profound (e.g., “A wet person does not fear the rain”) or mundane (e.g., “Newborn babies require constant attention”) statements. These results support the idea that some people are more receptive to this type of bullshit and that detecting it is not merely a matter of indiscriminate skepticism but rather a discernment of deceptive vagueness in otherwise impressive sounding claims. Our results also suggest that a bias toward accepting statements as true may be an important component of pseudo-profound bullshit receptivity.

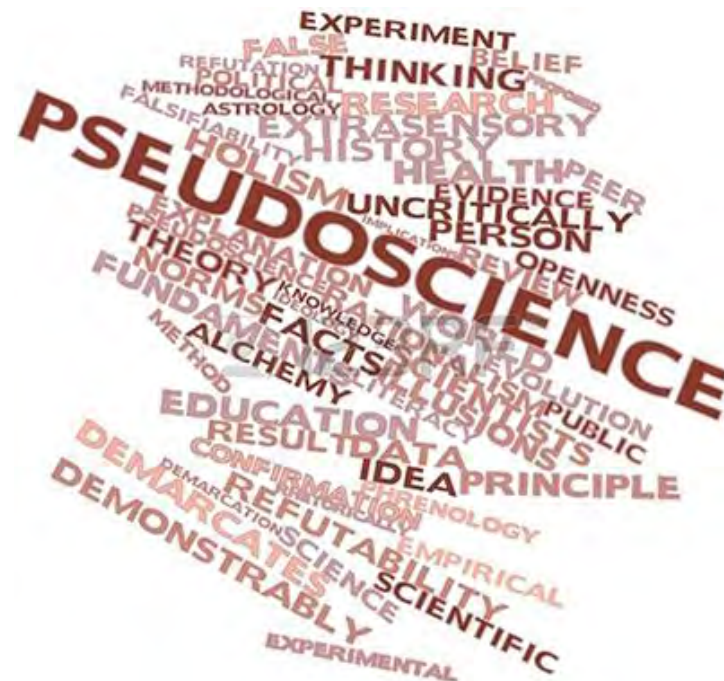
**Keywords:** bullshit, bullshit detection, dual-process theories, analytic thinking, supernatural beliefs, religiosity, conspiratorial ideation, complementary and alternative medicine.

## 1 Introduction

“It is impossible for someone to lie unless he thinks he knows the truth. Producing bullshit requires no such conviction.” – Harry Frankfurt

## 2 Pseudo-profound bullshit

The Oxford English Dictionary defines bullshit as, simply, “rubbish” and “nonsense”, which unfortunately does not get to the core of bullshit. Consider the following statement:



<http://nr.news-republic.com/Web/ArticleWeb.aspx?regionid=48&articleid=53143276>

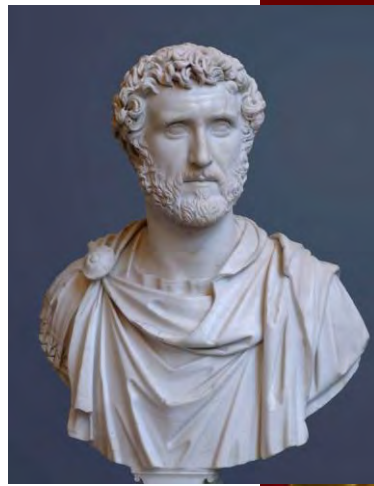




## Socijalna "ravnoteža" i kulturni kolaps



# Congiarium



**Marcus Cornelius Fronto**  
(c. 100 – late 160s)

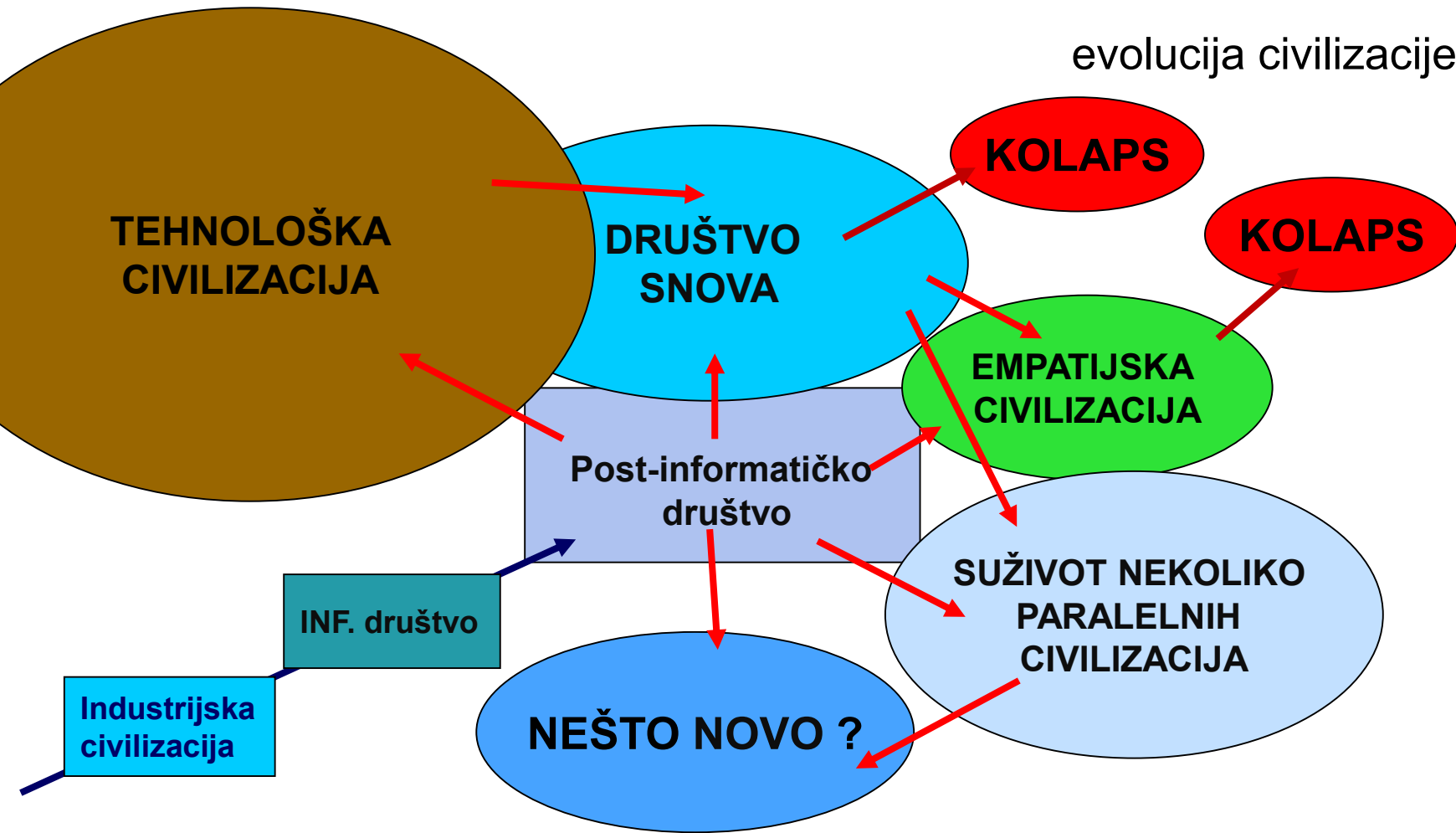
I consider it good policy that the prince did not neglect the theatre or the circus and arena, as he well knew that there are two things which the Roman applaud especially—the distribution of grain, and games. The neglect of the important thing [grains] causes great harm, of the frivolous thing [entertainment] greater hatred—the crowd hungering more for games than for bread, because by the gift to the people [congiarium] only those who are authorized to receive the grain will be gratified, while by the games the whole population is pacified.

— *Fronto, Prim. Hist.*, p. 249, ed., Barthold Georg Niebuhr





evolucija civilizacije







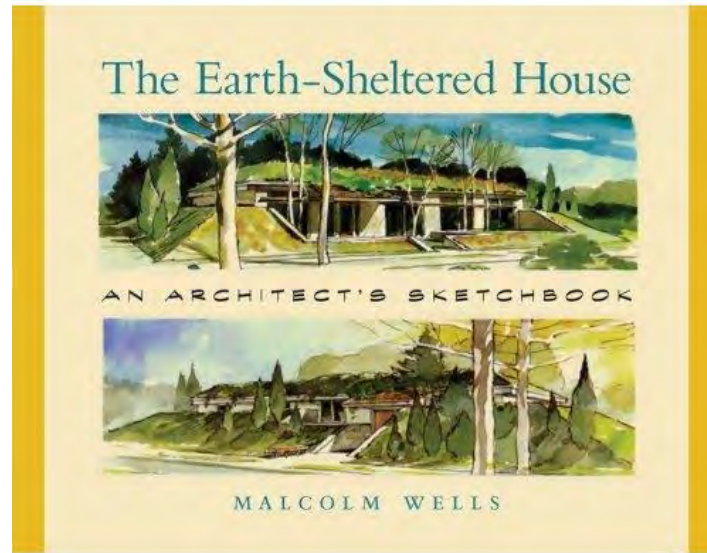
© BBC PICTURE ARCHIVES





**Malcolm Wells**, the pioneer of earth sheltered housing, wrote:

A building should: consume its own waste, maintain itself, match nature's pace, provide wildlife habitat, moderate climate and weather and be beautiful. That's a series of pass/fail evaluation criteria.

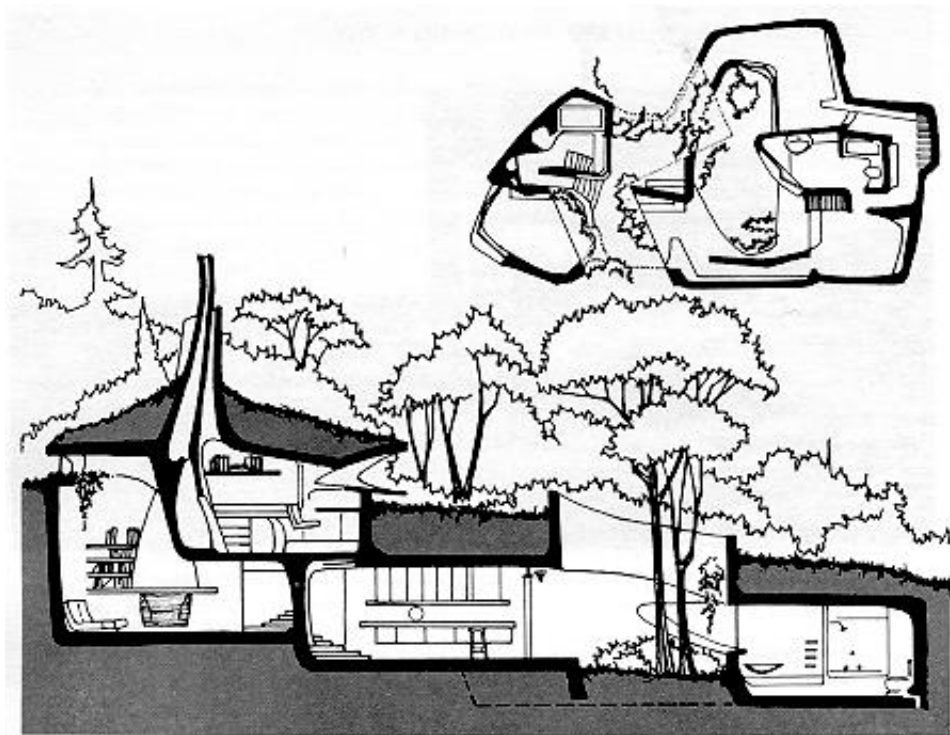


**Malcolm Wells**

(March 11, 1926 – November 27, 2009)



## A Random House - Malcolm Wells







# PODUZETNIŠTVO:

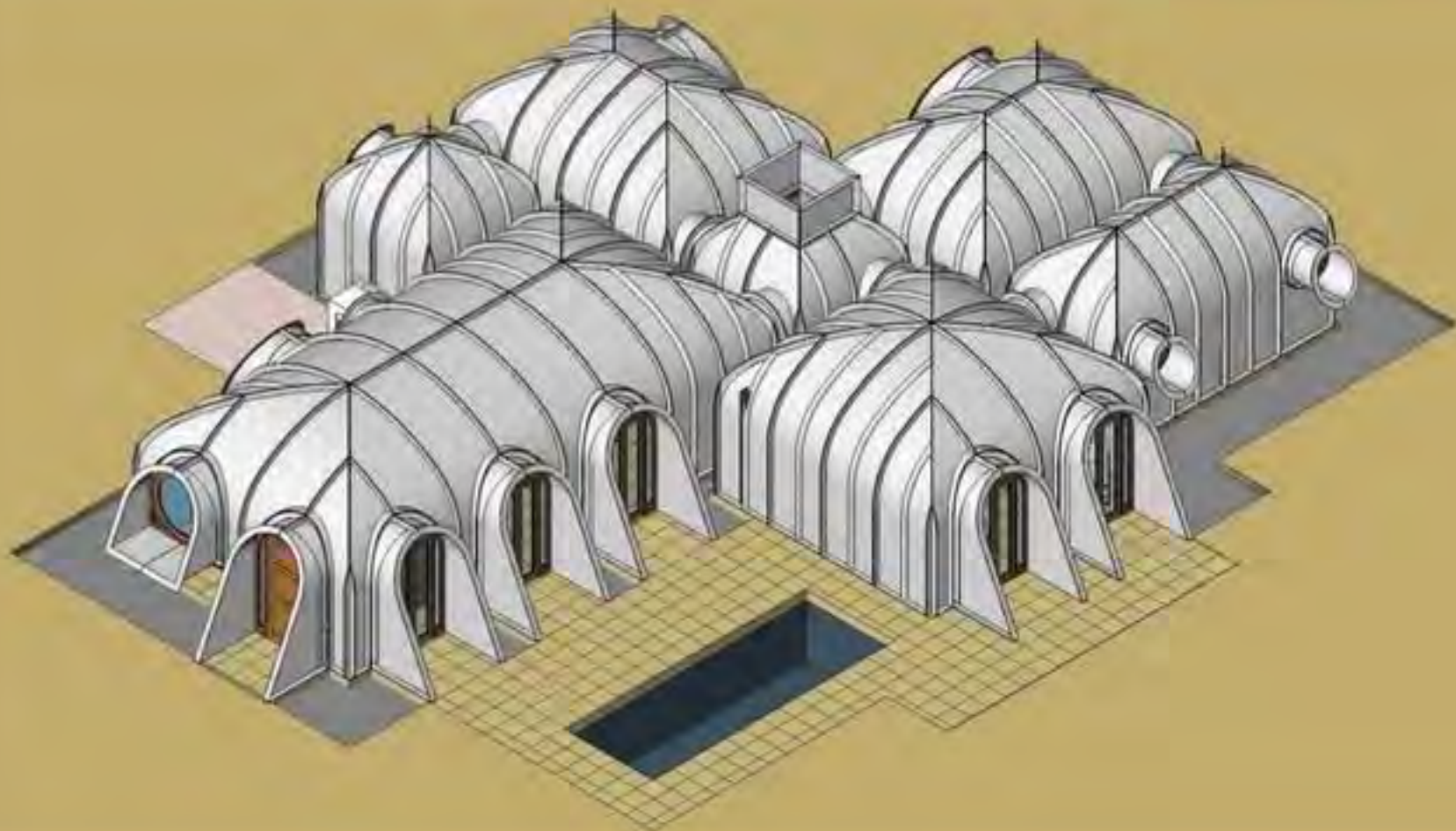
---



<http://www.greenmagichomes.com>









SHARE



WAIKIKI (.pdf)



SHOW ROOM (.pdf)



MARTINICA (.pdf)



EMERALD (.pdf)



DECAMERON (.pdf)



TERRANOVA (.pdf)



PARADISE (.pdf)



MEDITERRANEO (.pdf)



MÓNACO (.pdf)













## Energetski neovisna kuća po Elonu Musku

At an event on October 28, on the set of TV show at Universal Studios, LA, Elon Musk explained that the roof – which is made entirely out of solar cells – also integrates products from his electric car company. When it goes on general sale it will come with an integrated home battery (Powerwall 2.0) as well as a Tesla charger.



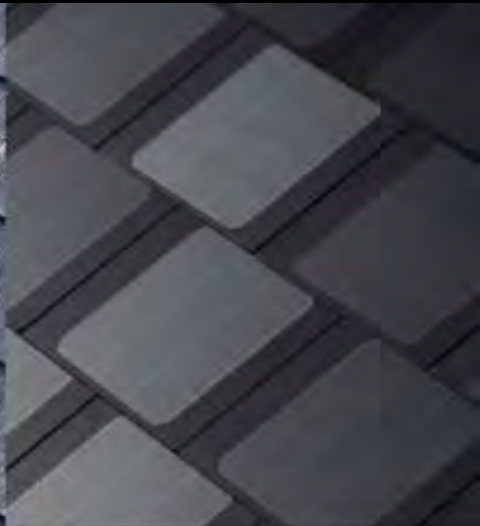
Tuscan Glass Tile



Slate Glass Tile



Textured Glass Tile



Smooth Glass Tile



# FUTURE URBAN PARKS REPORT



**Husqvarna global report on urban parks 2030**



**GÜSSING  
RENEWABLE  
ENERGY**

[GUSSINGRENEWABLE.COM](http://GUSSINGRENEWABLE.COM)









## Das Biogas



Biogas bildet sich überall dort, wo organisches Material in feuchter Umgebung unter Licht- und Luftabschluss verrottet.

Im Unterschied zu den „natürlichen“ Vorkommen von Biogas, wie Verdauungstrakte von Wiederkäuern, Mooren oder Sümpfen, lässt sich Biogas in einer Biogasanlage systematisch, mit Hilfe verschiedener Bakterien aus organischem Material erzeugen.

Dabei wird die organische Masse in 4 Schritten zu Biogas umgewandelt.

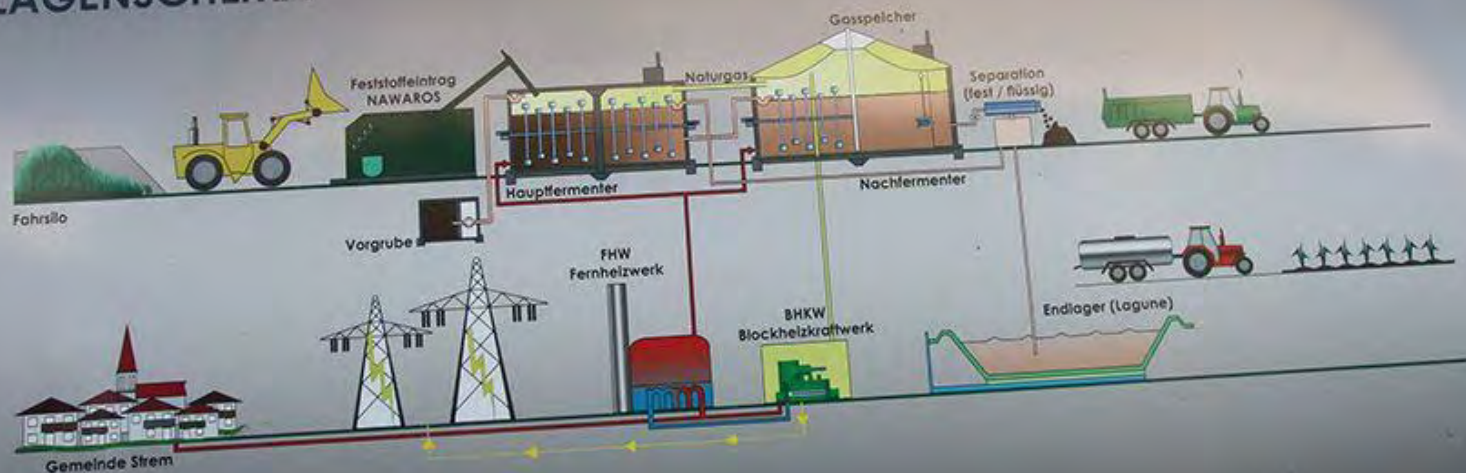
Die Hauptkomponenten des Biogasgemisches sind Methan ( $\text{CH}_4$ ) und Kohlenstoffdioxid ( $\text{CO}_2$ ), wobei das Methan der wertgebende Anteil ist, der energetisch genutzt wird.



thöni NATURGAS thöni NATURGAS thöni NATURGAS thöni NATURGAS

thöni NATURGAS

## ANLAGENSCHEMA



**thöni**  
UMWELT- UND ENERGIETECHNIK

thöni NATURGAS

## thöni NATURGAS zur Vergärung von NAWAROS

Inputmaterial:	Gras- und Maissilage
Jahresmenge/Frischmasse:	ca. 10.000 t/a (ca. 30-40% TS)
Feststoffeintragsmodul:	50 m³
Fermenter:	2 x 1.500 m³
Endlager:	2 x 2.000 m³
Biogasproduktion:	230 - 250 Nm³/h
Leistung Blockheizkraftwerk:	500 kW elektrisch 535 kW thermisch/h
Energieproduktion/Jahr:	4.250 MWh Strom 4.500 MWh Wärme

**thöni**

UMWELT- UND ENERGIETECHNIK

AGRI-TECH - TIROL - AUSTRIA - OBERAINTS-PLATZ 40  
POSTFACH 48 - TELEFON 0606 8003-0 - FAX 0606 8003-610  
e-mail: thoeni@thoeni.com - <http://www.thoeni.com>



thöni NATURGAS

















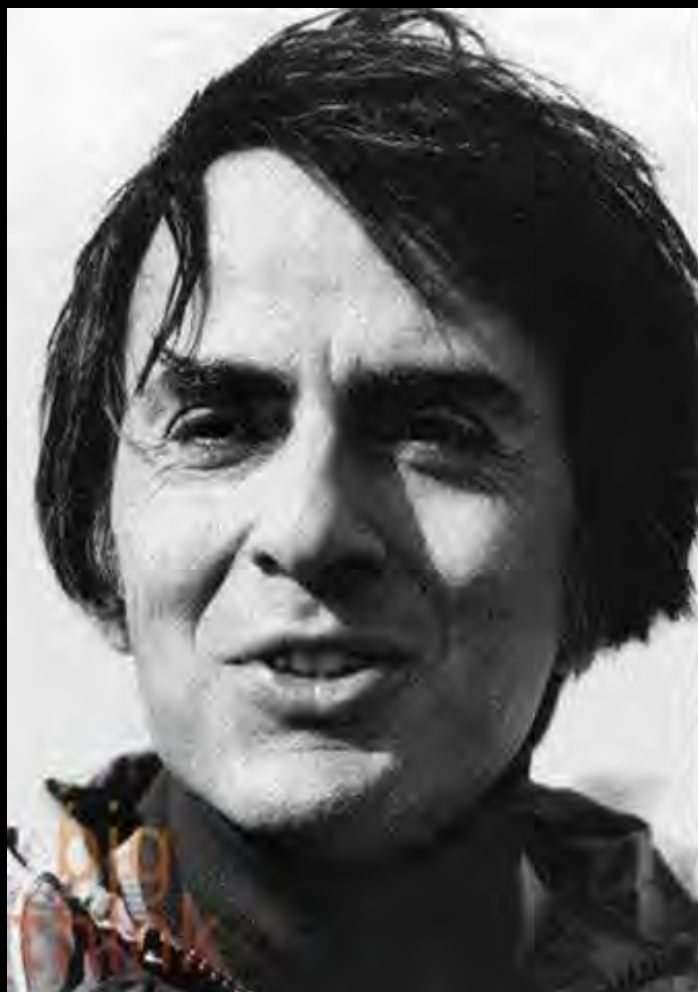












"We live in a society absolutely dependent on science and technology and yet have cleverly arranged things so that almost no one understands science and technology. That's a clear prescription for disaster."

**CARL SAGAN**  
Popular Scientist





## NEWS

[Home](#)
[Video](#)
[World](#)
[UK](#)
[Business](#)
[Tech](#)
[Science](#)
[Magazine](#)
[Entertainment & Arts](#)
[Health](#)
[World News TV](#)
[More](#)

## Magazine

## 'LED street lights are disturbing my sleep'

By Brian Wheeler  
BBC News, Washington DC

6 hours ago [Magazine](#)

Share



In towns and cities across the world, the colour of night is changing. Traditional yellow sodium street lights are steadily being replaced by white LED bulbs. The new lights use less energy, dramatically cutting carbon emissions and saving money. But not everybody is happy.

## In today's Magazine

Why I bought my daughter heroin

The window cleaner who

turned to one side and the light's shining right in my

## Top Stories

IS fighters in Mosul 'will die' - US envoy

4 hours ago

EU leaders harden stance in Turkey row

7 hours ago

Republican's Wilders tweet sparks a storm

7 hours ago

## Features



'LED street lights are disturbing my sleep'



Like most of us, Karen Snyder had never really paid much attention to street lights. But that all changed last year when the city council began installing LED lights outside her home in a quiet corner of Washington DC.

How India's 'Real Marigold Hotel' changed my life

In addition to the light shining into her bedroom, the 63-year-old teacher's guest room, where she watches TV, is now bathed in something akin to strong moonlight.

"It's like there's a ray coming in. Like a blue ray. Right directly on to the couch. If you are sitting down, the moon would be above the house and you'd get the beautiful feel of the moon. This is shining right in your eyes so it's pretty different than a moon. Moons don't go this low into the windows."



An LED light (left) shines directly into Snyder's guest room, while a sodium light glows on the other side of the house

Her friend, Delores Bushong, says her sleep has also been disturbed by the LED street lights outside her home, and is now one of the main opponents of the new lighting in the city. She fears they will ruin the atmosphere on her back porch, where she likes to relax after dark in a hammock in the sweltering summer months.

"In some kinds of torture they put a light on someone's face all the time," she says. "Am I going to be subjected to a kind of torture forever? It doesn't make sense to me. Just because we have a new technology and you can save money."

Bushong has become well-versed in the jargon of colour temperature (measured in Kelvins) and light intensity (measured in Lumens), as she battles to get the city to take her concerns seriously. At the very least, she wants the 4,000-Kelvin bulbs in her neighbourhood, which she compares to the harsh lighting in a prison yard, to be replaced by bulbs with lower Kelvin ratings, closer in look and feel to the old





IDA Regional Meeting

**INQUINAMENTO LUMINOSO E SALVAGUARDIA DEL CIELO NOTTURNO**

Light pollution and the protection of the night environment



**VENEZIA: Salvare la notte**  
Venice: Let's save the night

## ZAGREVAČ Crkve i reflektori

Među najvećim su svjetskim sagradama koje u gradine koje u odnosa opsevnih rekonstrukcija. Na it i s fontanama i paviljonom na Zlatnom parkovima u Novom Zagrebu i Tursku. Dornom sportova, neopitima, seksualnim i trgovacim centima. Na rekonstrukcija u Aqueductu i Capitol centru. Kugle jantne razvijte lakodna u veći zaostavljaju. Površine je primjer pak parkovima.

King Crossa s ekološkim naslovom, rekonstrukcija i novih poslovni center VMD.

**Dom sportova** -  
prilike naredno  
navijati kuglan  
kafe besplatno  
nakupi vješto

11

Grady took 20 MW strong, fast nuclear reactors

41

milijun ljudi  
godišnje stop  
stope koju broj  
jezika razvija

34

mitigando la  
gradiente de  
desarrollo en  
la zona de  
transición.

30

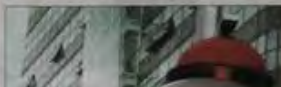
partes de 12 m  
uma hora de  
trabalho para  
cada

**King Cross** - riječi trgovatel centar koji ima nekoliko najvještih usmjerenih prema slu

**JAVNA RASVJETA** Za 25 milijuna kuna naručen projekt nove, ekološke rasvjete kojom će se smanjiti gubici i svjetlosno zagađivanje

# LAMPE NAS TRUJU

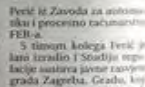
## Zdrave svjetiljke stižu na zeleni val i u Aveniju Dubrovnik



ATLANTA VAN CLUB

Modernizacijskom javne rasprave u Aveniji Dubrovnik i jednom djelu pelenog vala i Zagreb, poput nekih europskih gradova, za nekoliko mjeseci kreće u akciju i procentno računajući FEI-a.

5. timom, kojega Ferić je i kao izradio i Stadiju naposljetku ispunio javne rasprave grada Zagreba, Grad, koj



## Posljedice svjetlosnog zagađivanja

**SIGURNOSNE** – Nepravilno postavljena v neekološka jarna razvjeta kopa bijele na ovi strane kjevala je za kominapoti.

### Usporedba žarulja

Od djele zivne zarade u Austriji smogu

HRVATSKI SABOR

Na temelju članka 88. Ustava Republike Hrvatske, donosim  
ODLUKU O PROGLAŠENJU ZAKONA O ZAŠTITI OKOLIŠA

Prolašavam Zakon o zaštiti okoliša, kojega je Hrvatski sabor  
donio na sjednici 3. listopada 2007. godine.

Klasa: 011-01/07-01/122

Urbroj: 71-05-03/1-07-2

Zagreb, 10. listopada 2007.

Predsjednik

Republike Hrvatske

Stjepan Mesic, v. r.

ZAKON O ZAŠTITI OKOLIŠA

.....

.....

.....





# ZAKON O ZAŠTITI OKOLIŠA

.....

Zaštita od svjetlosnog onečišćenja

Članak 31.

(1) Svjetlosno onečišćenje je promjena razine prirodne svjetlosti u noćnim uvjetima uzrokovana unošenjem svjetlosti proizvedene ljudskim djelovanjem.

(2) Zaštita od svjetlosnog onečišćenja obuhvaća mjere zaštite od nepotrebnih, nekorisnih ili štetnih emisija svjetlosti u prostor u zoni i izvan zone koju je potrebno osvijetliti te mjere zaštite noćnog neba od prekomjernog osvjetljenja.

(3) Zaštita od svjetlosnog onečišćenja određuje se na temelju zdravstvenih, bioloških, ekonomskih, kulturoloških, pravnih, sigurnosnih, astronomskih i drugih standarda.



# Pet miskoncepcija o javnoj rasvjeti

- Rasvjeta sprječava kriminalne aktivnosti.
- Više svjetla, veća sigurnost na cesti.
- Dobra rasvjeta osvjetljava sve.
- Svjetlosno onečišćenje i nije onečišćenje jer nestaje kad se gasi svijetlo.
- Svjetlosno onečišćenje smeta samo astronomima.





Mravi ?





Pauci



# Čovjek?

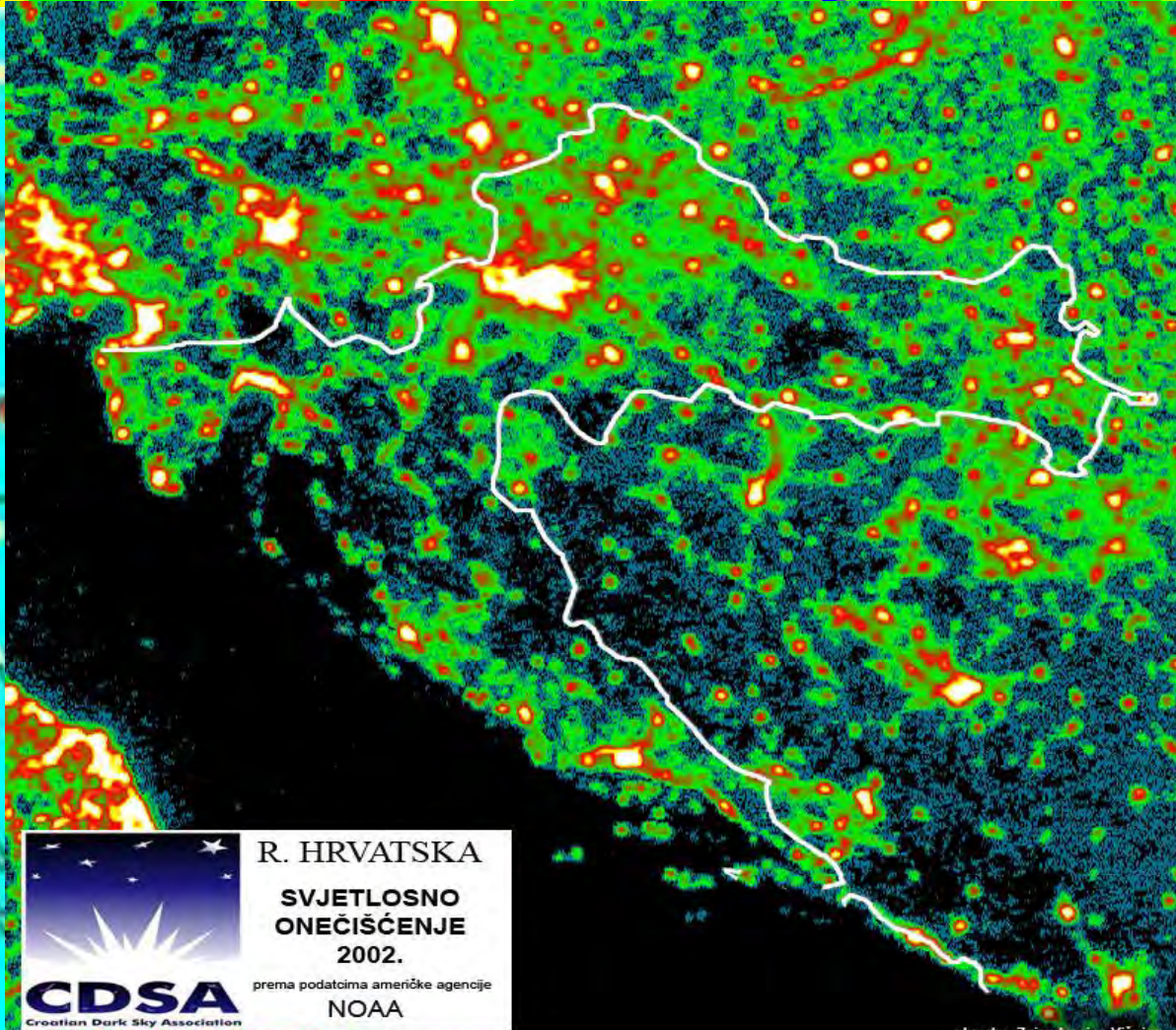
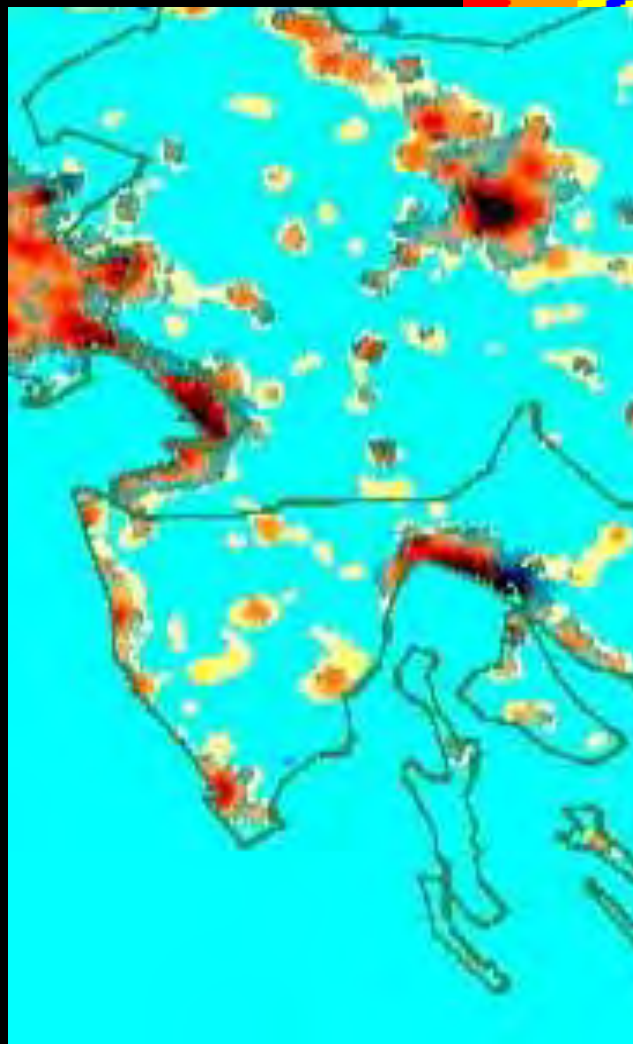
## Insomnia - nesanica ?

increased headache incidence, worker fatigue,  
medically defined stress, decrease in sexual function  
and increase in anxiety..  
most office environments lead to increased stress as well  
as increased worker errors. ... Several published studies also suggest a link between exposure to light at night and risk of breast cancer, due to suppression of the normal nocturnal production of melatonin.



- ^ Susan L. Burks, *Managing your Migraine*, Humana Press, New Jersey (1994) ISBN 0-89603-277-9
- ^ Scott Davis, Dana K. Mirick, Richard G. Stevens (2001). "Night Shift Work, Light at Night, and Risk of Breast Cancer". *Journal of the National Cancer Institute* 93 (20): 1557-1562.
- ^ Eva S. Schernhammer, Francine Laden, Frank E. Speizer, Walter C. Willett, David J. Hunter, Ichiro Kawachi, Graham A. Colditz (2001). "Rotating Night Shifts and Risk of Breast Cancer in Women Participating in the Nurses' Health Study". *Journal of the National Cancer Institute* 93 (20): 1563-1568.





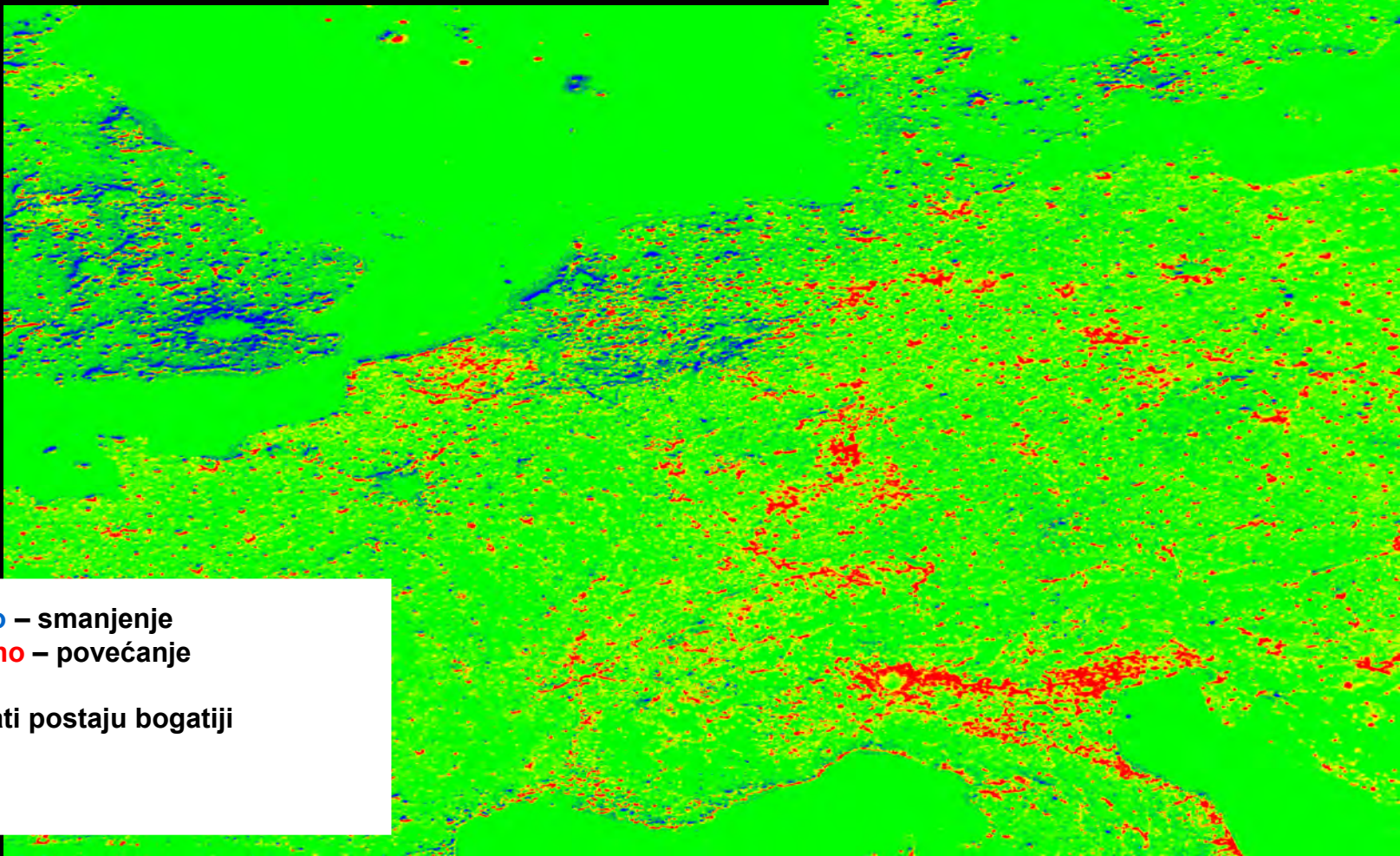
R. HRVATSKA

SVJETLOSNO  
ONEČIŠĆENJE  
2002.

prema podacima američke agencije  
NOAA



Subtraction : changes 2000 - 1993



plavo – smanjenje  
crveno – povećanje

Bogati postaju bogatiji  
a ....





**ŠTO DALJE ?!**



# PRILIKA !

za one koje nije strah zavrnuti rukave



# **KAMENOLOM**

geološka rana u okolišu ili prilika  
za prostornu valorizaciju okoline

**?**









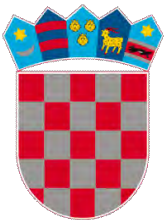












## **Djeca:**

- **4,8% BDP-a – školstvo**
- **20% populacije**
- **100% budućnosti**

# PODUZETNOST I INICIJATIVNOST UČENIKA OSNOVNIH ŠKOLA U REPUBLICI HRVATSKOJ: POPULACIJSKA PERSPEKTIVA

Boris Jokić, Zrinka Ristić Dedić, pedagozi osnovnih škola  
Krapinsko-zagorske, Međimurske, Varaždinske, Zagrebačke županije i Grada Zagreba

2014.-2016.

## ZAKLJUČAK:

- Većina učenika osnovnih škola pokazuju sklonost prema odgovorima koji sugeriraju nisku razinu razvijenosti dimenzija u osnovi kompetencije Inicijativnost i poduzetnost
- a tome su posebno skloni učenici osmih razreda
- Učenici radije odabiru kraći put, sigurnost, izvjesnost, ustaljenost....
- Poduzetni profil ima tek 2,1% učenika
- 47,3 učenika potpada u dva krajnja „nepoduzetna profila“
- Spolne razlike su vrlo male, kao i razlike između županija
- Izrazito je važan nalaz o nepovoljnim rezultatima čak i u kategoriji uspješnih učenika
- Posebno zabrinjava pad sklonosti inicijativnosti i poduzetnosti kako učenici prolaze kroz osnovnoškolski odgoj i obrazovanje

[http://www.idi.hr/wp-content/uploads/2017/03/HUP\\_PODUZETNOST\\_I\\_INICIJATIVNOST.pdf](http://www.idi.hr/wp-content/uploads/2017/03/HUP_PODUZETNOST_I_INICIJATIVNOST.pdf)

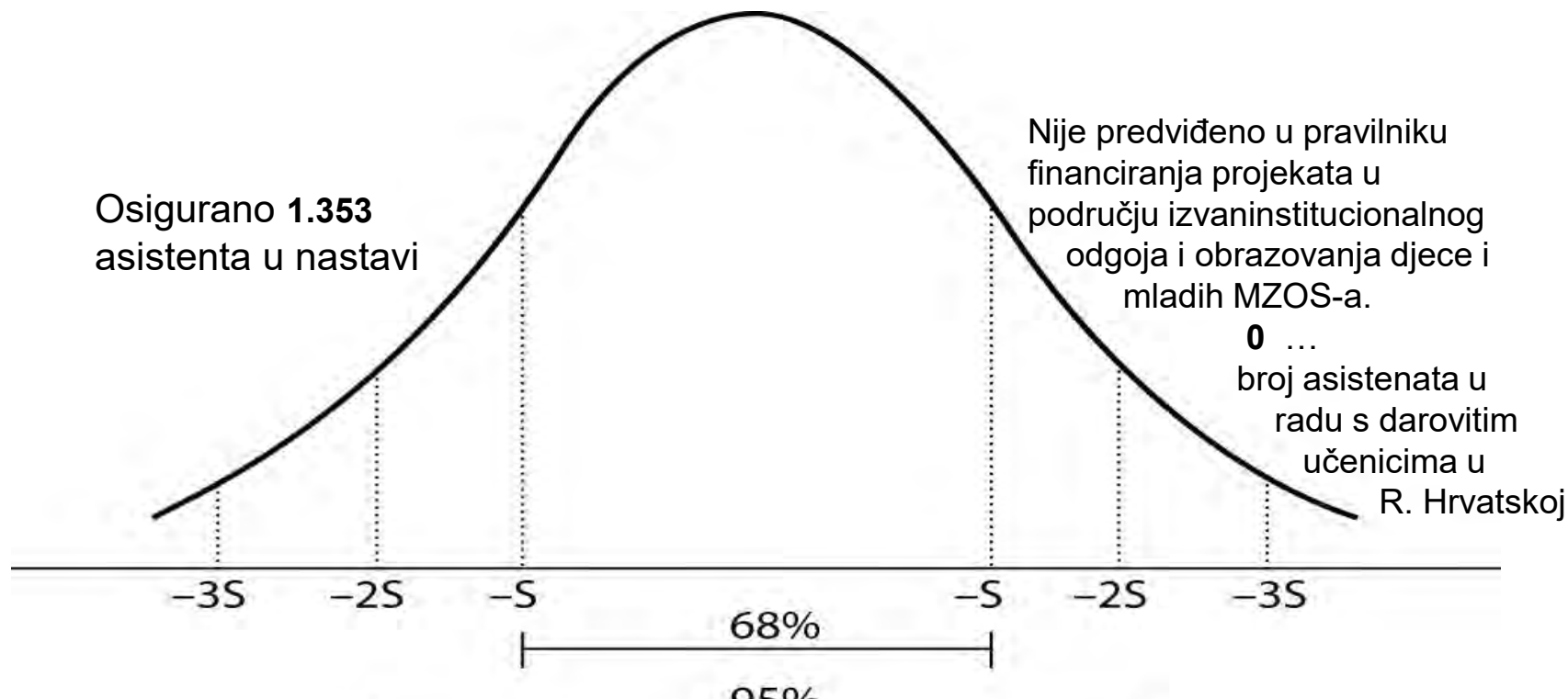
## RASPODJELA PO UKUPNOM REZULTATU

- Pet pitanja spojena u zajedničku mjeru (zbroj odgovora na svim pitanjima)
- **Rezultat 5 predstavlja poželjan profil** – učenika koji je na svim pitanjima dao odgovor koji odgovara sklonosti inicijativnosti i poduzetnosti
- **Rezultat 10 predstavlja nepoželjan profil** – učenika koji je na svim pitanjima dao odgovor koji znači nesklonost inicijativnosti i poduzetnosti





Republika Hrvatska  
2014.





"Be the change that you wish  
to see in the world."

*Mahatma Gandhi*



**Zahvaljujem na pažnji!**