



**RadoNorm**  
Managing risks from radon and NORM

# **Treatment or threat?**

## **Analyzing the communication frames on European radon spa websites**

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*“Exposure to radon gas can cause adverse health outcomes, including lung cancer” (WHO, 2021: 52)*

History of campaigns to make people test, mitigate, remediate

**Core idea in radon communication:** avoid radon exposure, as it puts your health at risk



## At a German Health Spa, Radiation Is King

By **Adam Tanner**

6 January 2006, 17:55 • 6 min read



SCHLEMA, Germany, Jan. 18, 2001 -- As NATO Balkans veterans fret about health risks from exposure to uranium munitions, a generation old enough to remember the last great European war is happily paying for a bit of extra radiation exposure.

Every day hundreds of elderly Germans splash around in the spa waters at Schlema, which contain low levels of radon, a radioactive gas generated from the decay of uranium, with the conviction it can cure ailments such as rheumatism.

Source: [abcnews.go.com/International/story?id=81664&page=1](http://abcnews.go.com/International/story?id=81664&page=1)



(Sporst/Flic

HEALTH

### People Are Now Travelling Across The US to Deliberately Breathe Radioactive Air

JACINTA BOWLER 27 JANUARY 2019

Every year, people from all over the United States - and even overseas - travel to the Boulder-Basin in Montana for a potentially dangerous alternative treatment.

Source: <https://www.sciencealert.com/people-are-sitting-in-mines-and-breathing-air-irradiated-with-radon>

## A spa where patients bathe in radioactive water

View

*Matthew Vickery*

8-10 minutes

A spa where patients bathe in radioactive water

(Image credit: Stanislav Dusik)



BBC Future visits a health resort with a difference - with a history that dates back to Soviet-era mine labour, patients now flock here for an unusual treatment.

Source: <https://www.bbc.com/future/article/20180306-a-spa-where-patients-bathe-in-radioactive-water>

Facilities that offer treatments, therapies and services which claim beneficial effects of radon on health and wellbeing

- Spread across the world
- Significant histories
- Little researched, especially from SSH perspective

**Research question:** How do these spas communicate about radon, and hence frame radon gas?

**!NOT** our objective to assess health claims or take position in controversy!

# Framing

“To frame is to select some aspects of a perceived reality and make them more salient in a communicating text in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendations.” (Entman, 1993: 52)

- Frames highlight some aspects, while downplaying or ignoring others
- All communication entails framing
- Different frames might entail different audience reactions



→ how we communicate, creates certain realities

- Focus on websites of radon spas in EU (n=26)
- Analysis in two stages:
  - Hermeneutic analysis: Bottom-up identification of frames
  - Deductive analysis: Checking frames in extended dataset

PHASE 1		PHASE 2	
Country	Number of radon spas	Country	Number of radon spas
Austria	6	Austria	7
Bulgaria	1	Bulgaria	2
Croatia	1	Croatia	1
Czech Republic	1	Czech Republic	1
Germany	5	Germany	9
Greece	1	Greece	1
Hungary	0	Hungary	1
Italy	1	Italy	2
Poland	1	Poland	2

# Frame 1: Radon as a source of health

- Found on all websites
- Emphasis on health benefits of radon



Source: <https://www.gasteiner-heilstollen.com/de/indikationen-und-kontraindikationen/> August 2021

*“[Radon] has a beneficial effect on cell transformation, enzymatic processes, strengthens blood vessels, nerve tissue and has a regulating effect on blood pressure.”*

- Legitimized by:

## SCIENCE

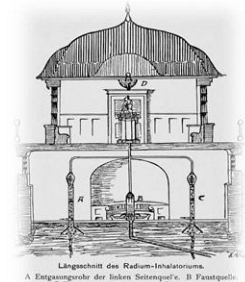
*“Radon’s beneficial properties have been confirmed in experimental researches and treating sick patients”*



Source: [https://www.dunstabad.at/ku\\_r.html](https://www.dunstabad.at/ku_r.html) August 2021

## TRADITION/EXPERIENCE

*“Since 1825, this successful radon therapy has been practiced here”*



Längsschnitt des Radium-Inhalatoriums.  
A. Engpassgehölz der linken Seitenquart. B. Passgehölz.  
C. Engpassgehölz der rechten Seitenquart.

Source: <https://acuradon.de/geschichte-des-radonstollens-in-bad-kreuznach/> August 2021





## Frame 2: Radon as a natural gas

- Found on 25 out of 26 websites
- Emphasis on natural character/origins
  - "The thermal water [...] is weakly mineralised and enriched with natural radon"*
  - "The natural springs contain radon, which has a positive effect"*

Radon as 'natural'

versus

"Radon must be re-framed, from 'a natural radioactive gas' to 'indoor air pollution'" (Bouder et al, 2021: 2)



Source: <https://ebel-kliniken.com/klinik-bad-brambach/>  
August 2021



Source: <https://www.dunstab.at/heilmittel-radon.html>  
August 2021



Source: <https://www.lebensquell-badzell.at/therapie/kur-in-badzell/> August 2021



## **Frame 3: Radon as a (non)risk**

- 16 out of 26 relate to some form of risk → mostly implicit  
*"Before therapy with the thermal water of [name spa], a medical visit to the medical director of [name spa] is required"*

*"Radon Therapy not suitable for: pregnant women, children and adolescents, patients with the Thyroid Gland Hyperfunction, patients within 2 years after a tumor surgery or therapy"*



Source: <https://www.laznejachymov.cz/en/indications-contraindications/> August 2021

- 11 out of 26 provide reassurance/minimize risk  
*"Furthermore, the noble gas is gentle on the organism because it has no side effects whatsoever"*  
*"Ionizing radiation in a physician's hands is less risk than, for example, penicillin"*

# Frame 4: Radon as luxury

- Found on 21 out of 26 websites (+1 visual)

- Exclusiveness, uniqueness, luxury

*“The valuable noble gas is contained in the healing springs in [region], in a constellation that is unique worldwide”*

*“the precious and rare noble gas radon”*

→ radon as a ‘Unique Selling Proposition’

- Radon as a ‘Noble’ gas



Source: <https://www.saechsische-staatsbaeder.de/bad-brambach/schmerztherapie/radontherapie.html> August 2021



Source: [https://www.bad-schlema.de/badelandschaft/?tx\\_%5Bcontroller%5D=Standard&cHash=d6d033ed145f7c099fd2af147ac210dc](https://www.bad-schlema.de/badelandschaft/?tx_%5Bcontroller%5D=Standard&cHash=d6d033ed145f7c099fd2af147ac210dc) August 2021

## **Frame 5: Radon as a fountain of youth**

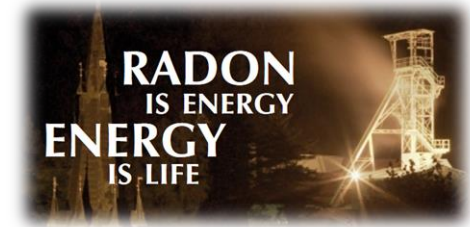
- Found on 13 out of 26 websites (+4 visual)
- Characterizes radon as ‘rejuvenating’ and ‘revitalizing’



Source: <https://www.istarske-toplice.hr/en/inhalacije/> August 2021



Source: <https://uzdrowisko-swieradow.pl/radonterapia> August 2021



Source: <http://www.laznejachymov.cz/Public/Files/prospekty/2018/en/LLJ-Radon.pdf> August 2021

*“Radon doesn’t damage tissues but intensifies the activity of cells and their revitalisation. It stimulates all life processes and makes the organism regenerate as if it was replacing the old parts by new ones“*

*“Radon is said to render free radicals harmless, which play a significant role in rheumatic diseases in particular, but also in the ageing process”*

→ In line with spa audience? Cfr. Erickson, 2007

## Conclusion

- ‘Radon threat’ versus ‘radon treatment’:
  - Carcinogen <-> health benefit
  - Indoor air pollutant <-> natural
  - Omnipresent <-> exclusive, rare
- Distinct realities, but a shared world : designing public health campaigns
- Beyond framing: the road ahead

# Thank you!

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See also :Geysmans R, Perko T, Keser M, Pölzl-Viol C, Fojtíková I and Mihók P (2022 - forthcoming) Cure or Carcinogen? A Framing Analysis of European Radon Spa Websites. Int J Public Health 67:1604559. doi: 10.3389/ijph.2022.1604559

*Disclaimer: all pictures used in this presentation were gathered from publicly available websites, with the purpose of conducting scientific research*

