

Sorry, this is the climate we live in - Kraków climate nonsense

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Below you can find the English version of the 'This is the climate we live in' exhibition displayed in front of Pawilon Wypiańskiego in Kraków's Plac Wszystkich Świętych.

GRAPH ON TITLE PANEL:

Multiannual variability of air temperature in Kraków from 1850 to 2020
(source: <https://showyourstripes.info/s/europe/poland/krakw/>)

EDITORIAL FOOTER:

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Exhibition material courtesy of the Museum of Photography in Kraków and Artur Wabik.

Information featured has been selected subjectively and does not constitute a thorough source of knowledge.

The project uses icons sourced from www.vecteezy.com.

#HotWeatherIsWhatILike

Data collected daily at the Kraków scientific station of the Jagiellonian University's Department of Climatology (Matuszko et al., 2023)

The highest recorded air temperature in Kraków was 38.4 °C, the lowest -37.2 °C.

Climate change we are experiencing means more warm days. Sounds great? Not really. We need to prepare for extremely high temperatures. The number of hot days (max. temp. > 25 °C), extremely hot days (max. temp. > 30 °C) and hot nights (min. temp. ≥ 20 °C) will be on the rise.



Oh, it's hot! A building in Kraków's Szlak Street (photo: P. Wojnarowski)

In 2018, Kraków saw a record of 100 hot days! A sequence of several hot days and nights (heat waves) results in difficulties when trying to cool down and increases the risk of dehydration, strokes, as well as other overheating-related ailments.

Simultaneously, winters are getting warmer, the number of cold days is decreasing (max. temp. $< 0^{\circ}\text{C}$), it snows less frequently and the number of days with recorded snow cover decreases - in Kraków, the highest number of snow days (133) was noted in the winter of 1995/1996, while the winter of 2019/2020 had only 1 such day (lowest recorded).

The last decade has been exceptionally warm in Poland. The average temperature reached 9.1°C , compared to 7.5°C in 1961-1990.

Vistula under Dębnicki Bridge, 1941 (author unknown, Museum of Photography in Kraków)

Did you know that only 60 years ago, block-cut ice from the Vistula River was used for food preservation and industrial purposes? In the past, ice was obtained from the river throughout the winter and used for cooling during warmer months!

Sleigh on a Kraków street, 1933 (author unknown, National Digital Archive)

Snowy Kościuszko Mound, 1927 (author unknown, National Digital Archives)

#ItIsGreatItDoesNotRainSoOften

An estimated 80% of the globe's freshwater resources are locked up in ice and snow. Warm winters resulting in reduced snowfall mean that less meltwater is fed into rivers in spring and soil is inadequately irrigated. As a consequence, many areas in Poland start suffering from water shortages.

Nobody likes getting wet in the rain. There's nothing like gentle sunshine and clear skies. So less rain equals more happy faces...

Flood in Kraków, 1925 (author unknown, National Digital Archives)

Nonsense! An increase in average annual air temperature translates into a marked change in the occurrence of rainfall throughout the year. It will rain less frequently but more intensely - we must get ready for the so-called extreme rainfall events, more frequent and intense flooding and waterlogging, as well as longer dry spells causing drought.



**Magiczny
Kraków**

Every flood in Kraków hits the Vistulan Boulevards first (photo: W. Majka)

Regrettably, in urban areas on average as much as 70 % of rainwater is irretrievably lost, as it quickly runs off the sealed surface of streets, pavements, squares and car parks, before being discharged by the sewer system directly into rivers and further into the sea.

The new municipal flood storage facility on ul. Władysława Siwka (photo: P. Wojnarowski)

#NatureIsMeantToServeMankind

With the advent of the industrial age in the 19th century, humans began to consider themselves Earth's most important creatures, capable of conquering lands, oceans, skies and even space. Recently, it has become apparent that such profound interference with nature is beginning to take its toll on us.

Deforestation, hunting, destruction of entire ecosystems, mining for coal, oil and precious metals. All these activities cause adverse effects: sinkholes in Silesia and the Małopolska region, smog, plastic pollution in the oceans, increasingly harmful viruses and zoonotic diseases - these are just some of the consequences of our short-sightedness.

In Kraków, we are now turning to what is good and necessary for humans and nature - urban gardening and protection of insects (especially bees!).

Harvest is nigh in Nowa Huta, 1980 (photo by A. Polec, Museum of Photography in Krakow)

Farm with a view of one of Kraków's Mounds - 1915 postcard (from the collection of A. Wabik)

As much as 30% of Kraków's area is agricultural land! Best soils can be found in the city's eastern part - potato and corn cultivation dominates there. There are about 2,000 farms in the city.

Vertical greenery is becoming ever more popular - here an example from Krupnicza Street. And if you want to see a "hanging garden" live, just turn right and look around the corner of the Wyspiański Pavilion! (photo: P. Wojnarowski)

Greenery constitutes more than 70% of Kraków's area! New lawns, flowerbeds and trees are appearing. In 2023, 3 projects submitted by the locals as part of the participatory budgeting scheme were completed: the green revitalisation of Krupnicza Street, a similar project in Aleja Róż and Wisława Szymborska Park on Karmelicka Street.

Following the 2023 revitalisation project, Aleja Róż looks as it used to in the early days of Nowa



Huta - before green areas were trimmed to make room for the Lenin monument (photo: P. Wojnarowski)

Wisława Szymborska Park – a former car park now turned into an actual park with fruit trees and over 70,000 flowers: a royal feast for beneficial insects! (photo: P. Wojnarowski)

The newly green Krupnicza Street has become a woonerf welcoming pedestrians, cars and plants (photo: P. Wojnarowski)

In the green areas managed by the city, new grass cutting standards have been in force since 2022, allowing lawns to retain more moisture and saving space for insects and small animals.

#ClimateChangeHasNotKilledAnybodyYet

Good times are passed and gone... Human activity over the last hundred years has severely strained the environment and ecosystems and, as we now understand, it has directly contributed to climate change. The associated extreme weather phenomena will lead to the deterioration of living conditions on Earth.

Water-related issues may prove particularly challenging. We can expect torrential rains, causing local floods. If we fail to learn how to effectively capture and store rainwater even from short rainfalls, we will lose daily access to water. We might be facing months of drought, which is already affecting farmers across the country. Harvests will also be affected by very strong winds (including tornadoes and hurricanes!), as well as hailstorms. Thunderstorms and the accompanying severe weather phenomena are also becoming more frequent in the cooler half of the year. It is very likely that phenomena typical of particular seasons will start occurring atypically.

While we cannot “blame” climate change for all extreme phenomena, we do know that it affects their frequency and intensity.

A red-leaved beech, Planty Park’s largest tree, felled by strong winds in the winter of 2022 (photo: P. Wojnarowski)

What can you do for the environment?

- **Save energy. Use energy-efficient appliances, switch them off when not in use, consider installing renewable energy systems.**
- **Choose public transport and cycling over the car.**
- **Buy less and preferably second-hand, borrow and barter.**



**Magiczny
Kraków**

- **Don't use disposable products, repair and donate unnecessary items. Remember: waste is a resource, not rubbish.**
- **Replace meat with vegetables at least once a week. Our shared planet and your own body will thank you.**
- **Exercise your influence on political and business decision-makers. Climate-positive change will not succeed without systemic solutions.**
- **Visit Kraków Centre for Climate Education (Krakowskie Centrum Edukacji Klimatycznej) at ul. Wielopole 17 for more climate-friendly solutions!**

Kraków Centre for Climate Education (Krakowskie Centrum Edukacji Klimatycznej) (photo: P. Wojnarowski)