EPOCH

the dawn of a new era

ISSUE 2 | SEPT. 2018

5 foods one must eat in Mumbai

Plus:

The MUMBAI skyline

Epoch

table of con - tents

Epoch

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Editors: Aaryan Mehta and Aryan Srivastava

Dear Readers,

As many of you may recall, 6 months ago, the 1st edition of the school magazine: the Epoch; was launched. The following month, we planned to augment the number of magazines that we would publish, however we were not granted the required finances to do so as we didn't have a clear goal, a plan for the magazine.

Goal in mind, with eyes on the prize, we're back, better than ever with the Epoch! Giving it our best shot, we've tried to improve every aspect of the Epoch - from the layout of the magazine to the articles - and so we're incredibly proud to present the 2nd edition of this prestigious magazine.

Our aim is to publish a new issue of the Epoch every month starting this month.

With the 2nd edition of the Epoch we hope that you, the readers will become as much a part of this journey as we are, as we venture new heights.

The Epoch has taken a lot of hard work and dedication in the making and so, we hope that you enjoy reading the magazine as much as we did creating it.

Warmest Regards,
Aaryan Mehta (on behalf of the entire team),
Founder, Designer and Editor of the Epoch

Mood Indigo

By Supriyaa Kaushick

IIT Bombay's Mood Indigo is the largest college cultural fest in Asia. They have competitions on Music, Dance, Theatre, Film Making, Improvisation, Debate, Stand-up Comedy, Quiz Contests, Poetry, Journalism and many other cultural events. Mood Indigo invites celebrities as judges for these competitive events and also offers many non-competitive art and cultural events for visitors to enjoy like LitFest, WorldFest, workshops, panel discussions, exhibitions, shows, fringe events, sports, interactive games and much more. Music concerts are also among the popular events at Mood Indigo, with famous Indian and International artists. The 4-day festival takes place in Mumbai and is among the oldest college festivals in Mumbai, having begun in 1971. In the 2015 edition, over 1.3 lakh visitors from 1650 colleges participated in 220 events.

USA announces creation of Iran action group to 'blow up' nuke deal

By Aryan Srivastava

The US State Department on August 16th announced the creation of the Iran Action Group (IAG) to execute the administration's Iran strategy and pressure the country to change its behaviours.

Secretary of State Mike Pompeo said the group will be responsible for directing, reviewing, and coordinating "all aspects of the State Department's Iran-related activity, and it will report directly to me."

Saying that Tehran has been engaged in "a torrent of violent and destabilizing behaviour" against the United States and its allies for nearly 40 years, Pompeo said, "We are committed to a whole-of-government effort to change the Iranian regime's behaviour."

The IAG will ensure that the Department of State remains closely synchronized with interagency partners, and lead US diplomatic efforts to "galvanize international support for our efforts."

Brian Hook, the current director of Policy Planning in the State Department, will lead the group with the formal title of Special Representative for Iran.

Washington left the Iran nuke deal on May 8, saying it would re-impose sanctions on Iran that had been lifted under the deal.

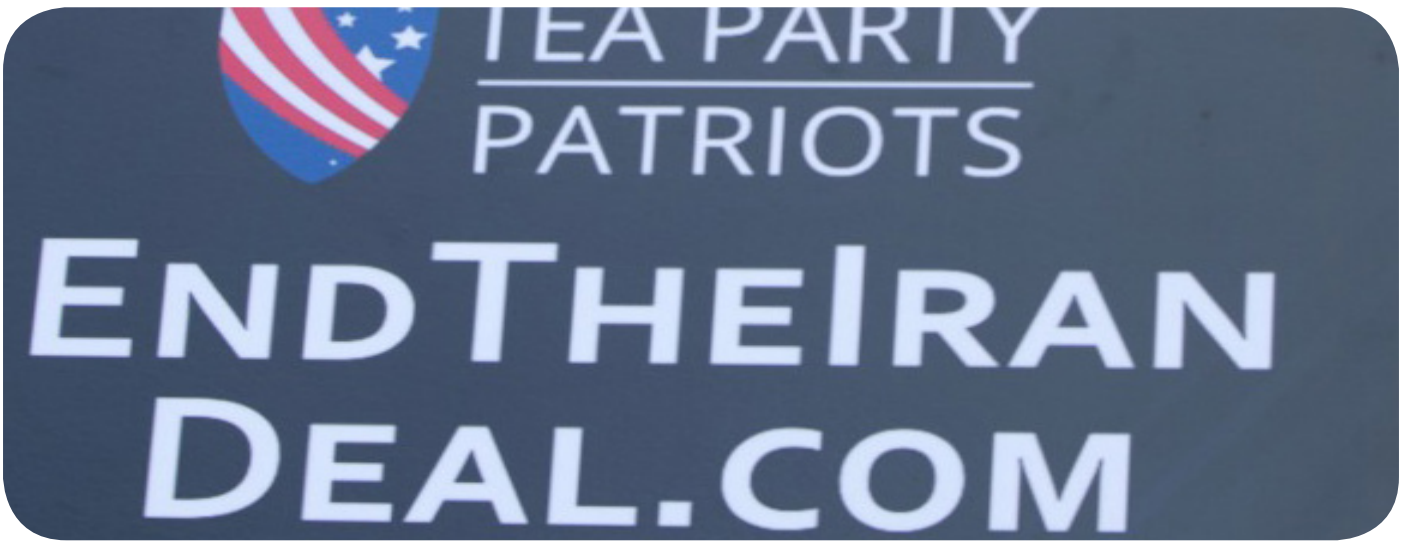
Pompeo, on May 21, rolled out US new strategy on Iran, outlining 12-point requirements for Iran to change its behaviours.

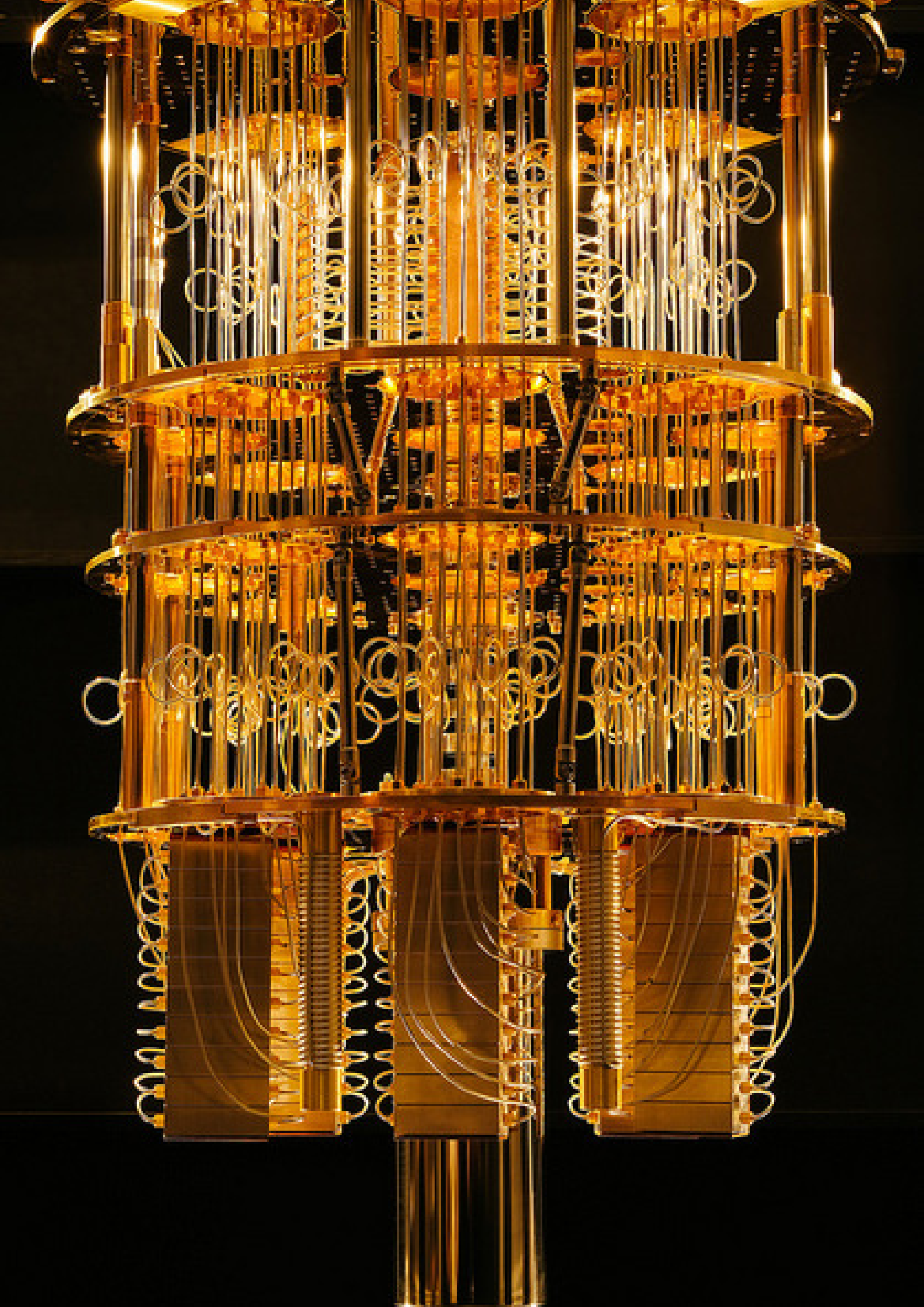
The US government on Aug. 7 re-imposed sanctions on Iran on non-energy areas, and will slap the remaining sanctions on Nov. 5 that concentrate on such areas as energy, shipping and ports.

For its part, Tehran has said that the US side is unreliable and it will not talk with Washington.

Many have criticised the US govt. for their actions, even when it was the USA who had withdrawn from the Iran Nuclear Deal, also known as the Joint Commission Plan of Action (JCPOA), which targeted the usage of Iran's nuclear power for specifically for energy production only.

Iran, on its part, had been successfully committing to the requirements, which ideally shouldn't have provoked the following reaction from USA.





Quantum Computers

By Ayush Chanda

We have all seen the modern computers and laptops which can create robots, process gigabytes of data, launch space crafts and many more things which would have been impossible without the computer. It has sunken into the roots of our lives where we can't even imagine a world without mobile phones, computers and specially Wi-Fi. But is this the end of computer evolution? If you said yes, you have much to learn young padawan. Quantum computers are on the rise and the world is only getting smarter.

I expect you to have these questions; What is a quantum computer, how does it work and is it better than our current computer. I will answer them one by one and take you along this journey of electrons and 1s and 0s

What is a quantum computer?

Dictionary.com defines quantum computers as those which make use of the quantum states of electrons or other particles to store and process information as quantum bits. The main factor that sets it apart from the traditional computers is that traditional computers use millions or billions of transistors to code bits 1s and 0s. On the other, hand quantum computers use atom sized molecules like an actual electron to code qubits which have 1s and 0s in the same code. For example, quantum computers can compute the rise of sea level rising by 70% and reducing by 30%.

How does it work?

To accomplish computing of qubits, engineers create extreme cold conditions near the processors and magnetism to manipulate the natural polarity field of the magnet within the electron and bring it to a position where it goes along the artificially created magnetic field created by the computer. This in quantum computing terms is called as the "spin down" which is equivalent to a traditional 0 in binary. To create an equivalent 1, the electron is forcefully going against its natural magnetic field (its polar south has turned to the magnetic north). This is called the "spin up" effect. Suppose, imagine a kid on a swing who is not moving, the position will be down- spin down. Similarly, imagine the kid 180 degree from the resting position -spin up. Consequently, quantum computers can compute 1s and 0s, so the kid will be 90 degrees from the resting position. However, there are restricting forces which don't let the electrons stay in one position. In quantum computing, there is a phenomenon called superposition where the electrons are moving in possible directions before the computer can measure it. To measure this, engineers first determine the initial position and then use probability to determine future positions of electrons. These predictions reach to 2 values in which the computer calls them outputs.

Are they better than our current computers?

The amount of technical knowledge this needs already sounds superior doesn't it? Not entirely. Quantum computers have two special advantages:

1.They can compute infinite processes at high speeds thanks to the indeterminable positioning of the electron

2.Since 2 measurements are needed to find the quantum value, they can exponentially increase the computing power. (Like a snowballing effect)

However, moving onto the spin down side (pun intended), they compute too much qubits which require a lot effort to isolate, manipulate and quantify. Expense almost quintuples doing that. So for basic algorithms like processing games, animation and video processing we better stick to our good old GPUs and binary codes. The only sector where quantum computers are superior are the weather reports, traffic predictions or any other situation where there are conflicting variables and need to be quickly calculated.

Currently many agencies are working on quantum units but Google and IBM have made the benchmarks in the market and are the current leaders in quantum computers manufacturing.

Volcanoes and people

By Ananya Bhat

With the recent eruption of Mount Kilauea, we will explore the human equation with volcanoes.

On May 3rd, 2018, after a magnitude-5.0 earthquake hit the Big Island, which is the most south-eastern island of Hawaii, Mount Kilauea erupted violently (as shown in the picture on the right), sending lava and thick plumes of smoke into the air, affecting multiple residential areas of the Puna district. The volcano continues to erupt to this day, with over 17 fissures providing exit pathways for built-up magma under the crust.

Volcanoes are rather unpredictable; despite constant monitoring and rigorous data collection, one cannot say with certainty, when a volcano will erupt. An exact date and time can never be given for such events. Volcanoes, however, tend to give signs of a possible eruption, which is exactly what Kilauea did.

On Monday, 30th April, the floor of the volcanic crater collapsed, initiating a series of earthquakes. According the U.S. Geological Survey, nearly 70 earthquakes of magnitude-2.5 and above took place between Tuesday and Wednesday alone. Later on Wednesday, cracks in the roads were reported in the Leilani Estate area (as shown in the picture below). Thereafter, the earthquake and major eruption hit the island on Thursday.

Often, tell-tale signs of an eruption include earthquakes in the area, an increase of steam and smoke being emitted from the volcanic crater and slight inflation or swelling of the volcano itself. Upon observing these signs, experts accordingly take decisions to order evacuations of areas around the volcanoes as soon as possible. In the case of Mount Kilauea, residents were sent warnings throughout the week leading up to the eruption to evacuate the area.

Volcanoes, owing to their unpredictable nature, may erupt any time, and with active volcanoes like Kilauea, there's no telling when eruptions may stop. Evacuating residents and placing them in temporary housing uses a lot of money, and paying with the death of people isn't an option. Why, then, do people still choose to reside near volcanoes and why do governments allow it?

For one, since volcanoes spew magma from under the surface of the Earth, the volcanic ash and lava is full of minerals. The hardened lava is weathered to form extremely fertile soils that require no additional minerals to promote plant growth. Some choose to obtain these minerals directly, therefore many mining-based towns form around volcanoes; they mine through the layers of hardened lava to obtain metals like copper, gold and silver. Areas around volcanoes are also excellent places to obtain geothermal energy from. Iceland, for example, uses geothermal energy. It has more than 100 active and dormant volcanoes, with their largest volcano being Eyjafjallajökull. Another reason is also the income from the tourism industry. People often flock to see volcanoes up close, and residents who live around these areas set up their own tours and gift shops to earn money.

Governments prevent people from getting too close to volcanoes by setting up exclusion zones around them. This is an area of land around the base of the volcano that is usually affected quickly by the running lava, making human escape impossible. People are not allowed in this area for their own safety.

Deciding whether volcanoes are a boon or a bane doesn't help us get anywhere, since they are natural elements that cannot simply be eliminated from this earth or tamed. The best we can do, and have been doing, is learning how to live around them and making use of what they provide us with.


LI-NING
LI-NING
ASIAN GAMES
Jakarta Palembang
2018

India shines at Asian Games

By Shivank Ganesh

The 18th edition of the Asian Games commenced on the 18th of August 2018. This edition of the games is being held in the cities of Jakarta and Palembang in Indonesia. This year, 45 nations will be participating, however China have been tipped to dominate the proceedings.

India has registered 69 medals so far, with the highlight being the gold in the mens quadruple skulls event. In individual events, Tajinderpal Singh Toor won gold in the Men's shot-put event. Nevertheless, there have been disappointments in Kabaddi, with the Indian Men's and Women's team bowing out against the sturdy Iranians, however, the Indian Women managed to salvage a silver medal. At the end of the games, India ranked 8th in the overall medal tally, with 15 gold, 24 silver, and 30 bronze.

Overall

Gold Medals

Silver Medals

Bronze Medals

Kohli's Masterclass, Pandya's magic and Bumrah's return leads Indian comeback

By Shivank Ganesh

On Wednesday, 22nd August, India recorded a convincing 203 run victory against a resolute English side. Virat Kohli and Ajinkya Rahane lead the way with stellar knocks in the first innings, with Virat Kohli top-scoring at 97. This helped India register a competitive 329 on a relatively dry Trent Bridge wicket. However, these efforts were backed up by a five-for by Hardik Pandya, who is fast establishing himself as a potential India test all-rounder. England were bowled out for 161, allowing India to further strengthen their grasp on the match. In the second innings, captain Kohli again top scored(103), achieving his 23rd test century, supported by a battling knock from Cheteshwar Pujara(72).

England were all-out for 317 despite the best efforts of Jos Buttler and Ben stokes, with Buttler bringing up his first test century. His century was a statement to the selectors, who have criticized him for his recent performances. India can take positives from the match, since Bumrah showed signs of recovery with a 5 for 85 in the second innings. We are likely to see a return of the young left-armer Sam Curran(20), who could be vital in the 4th test at the Southampton.

Fashion and bollywood

By Gurbani Bhatia

When did fashion and bollywood become synonymous? A question posed by every fashionable indian.

For the uninitiated, nepotism in Bollywood is like fish in the sea. Sometimes, you see it and sometimes you don't. But you can be rest assured that it exists. We knew that nepotism existed in Bollywood, but since when did fashion become synonymous to Bollywood?

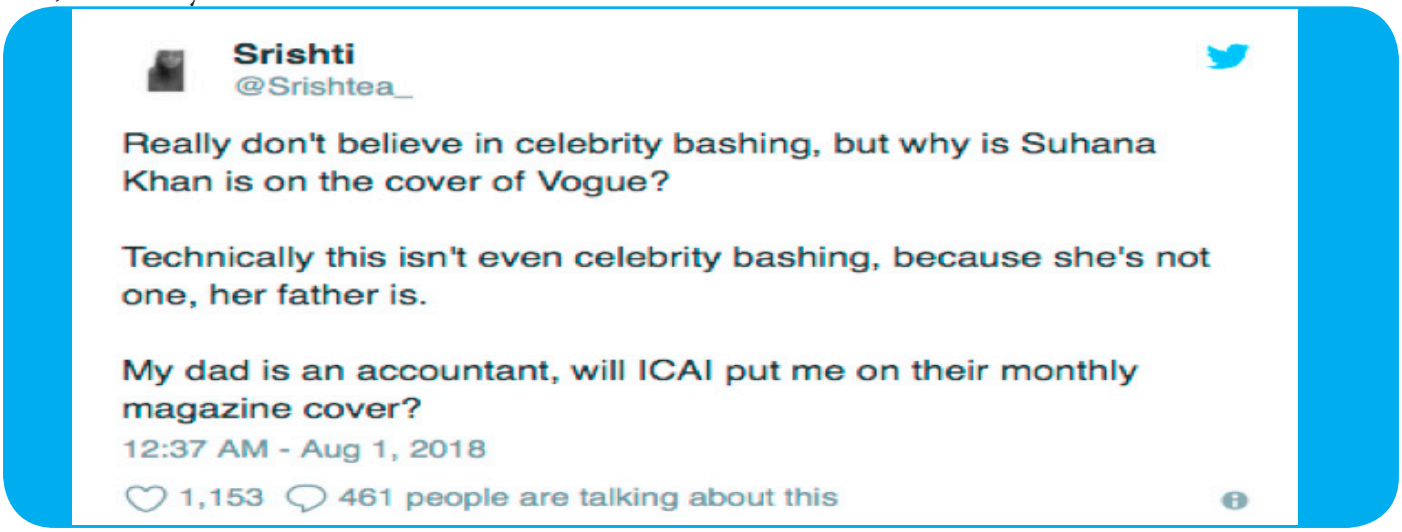
Well, Vogue India has proven that fashion in India is an extension of Bollywood. Vogue India made a bold, but seemingly predictable move to cast Suhana Khan on their magazine's cover.

Suhana Khan posed for her first Vogue cover, for the month August 2018, and reignited the nepotism debate.

Fashion, a topic viewed as a frivolous thing that is only used as an expensive and elaborate escape from the reality, has evolved, and developed into what we know as a perfect marriage of creativity, communication, and utility.

India follows Bollywood. That is certain. Almost all that goes up the silver screens, gradually, comes down to the streets too. From hairstyles to footwear; apparels to accessories and make up styles and shades, Bollywood has a major influence on our fashion choices. However, for a global mega fashion house such as Vogue, to only promote 'star kids' and Bollywood celebrities is detrimental to their image. To say the least, their reputation was quite hammered, when Vogue India received backlash on all social media networks, leading to a rise in the 'memes' and 'jokes' made on Vogue and the young Ms. Suhana Khan. One of the memes is shown in the image below.

Fashion, an ever-changing form of art, that evolves with culture, including pop culture, social media trends, requires 'fresh faces', wherein true talent of those who are working hard to achieve great heights in an industry with already stiff competition. Most bothering aspect of the cover, was just how there are tens of thousands of women working hard in various fields, to get half of the recognition Suhana Khan gets for being a celebrity's daughter.




VOGUE
INDIA
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2018
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THE VOGUE BEAUTY AWARDS 2018
Meet the winners
THE SOBER GIRL'S GUIDE TO PARTYING
IT'S TIME
The watches you need right now
200+
Fabulous fashion must-haves
Hello
SUHANA KHAN
Student, theatre lover, future star

5 rainy day must-eats

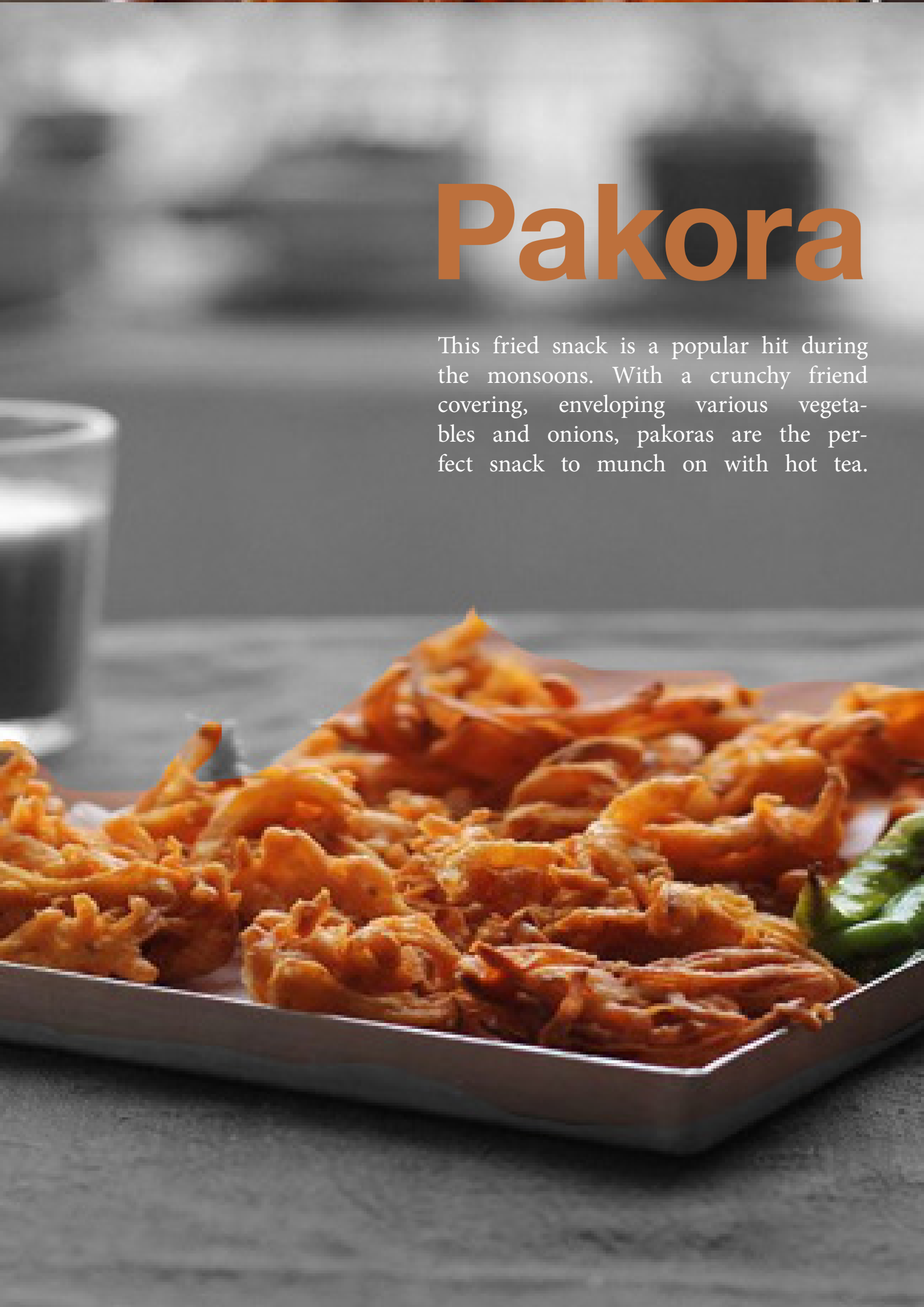
By Riya Venugopal

Chai

Mumbai has a very different take on their usual cup of tea. We call it the "Cutting chai". Typically, a cutting chai is half a cup of tea, which is less in quantity but just enough to refresh your senses. It is generally served with variety of snack options like biscuits or pakora.

Pakora

This fried snack is a popular hit during the monsoons. With a crunchy friend covering, enveloping various vegetables and onions, pakoras are the perfect snack to munch on with hot tea.



Pav Bhaji

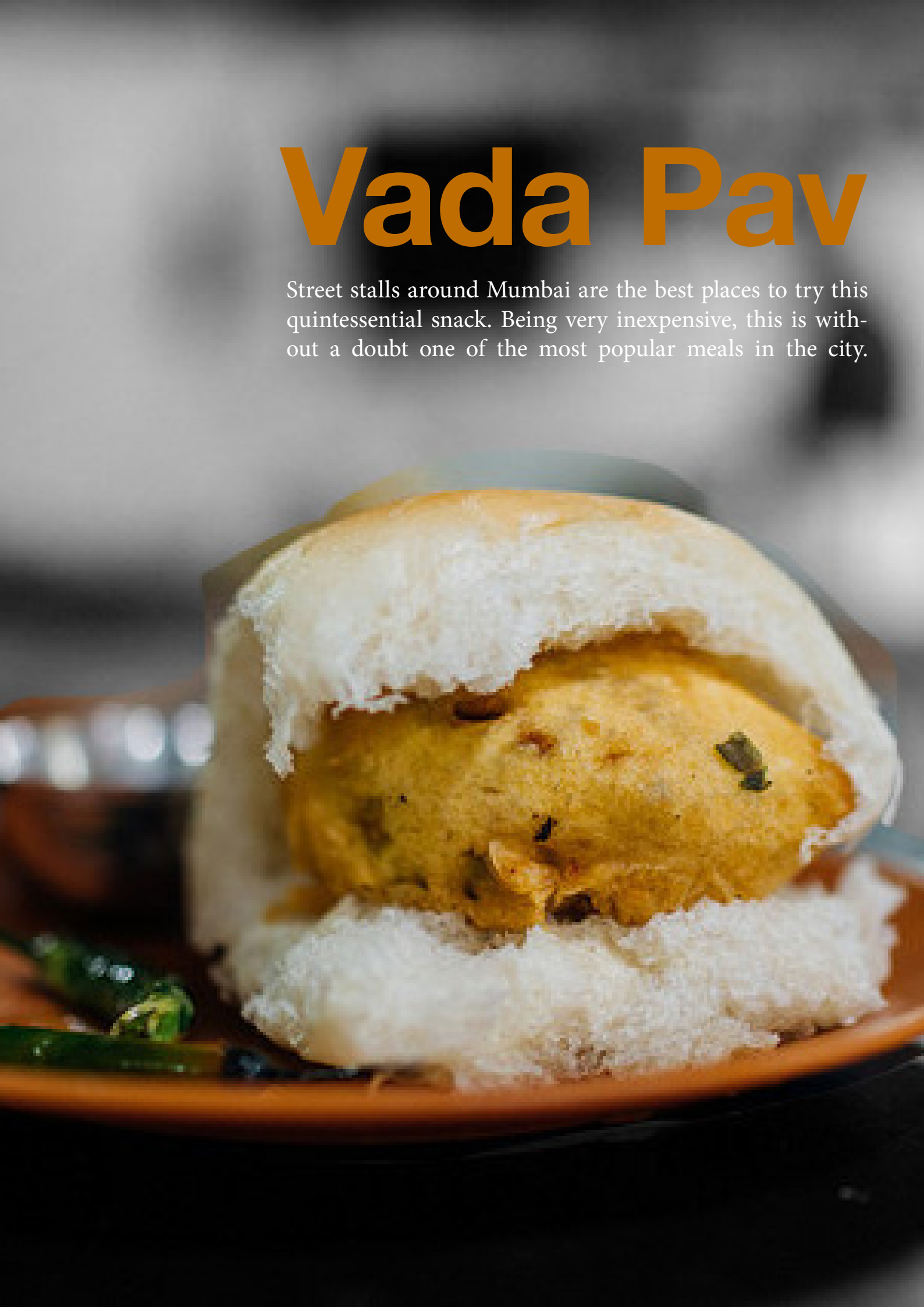
Mumbai has the best pav bhaji. A spicy vegetable curry topped with raw onion and freshly squeezed leomon juice, along with pav lightly grilled in butter is an incredible combination during the rains. Being a speciality of Mumbai, it is available throughout the city.

Bhutta

The bhutta (corn on the cob) is a monsoon must. A Mumbai style bhutta is flame-grilled then rubbed with paprika, salt and lemon making it a lip-smacking delicacy during a cold rainy day.

Vada Pav

Street stalls around Mumbai are the best places to try this quintessential snack. Being very inexpensive, this is without a doubt one of the most popular meals in the city.



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